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THE

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FOR THE YEAR

1900.

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METEOROLOGICAL REPORTER TO THE GOVERNMENT OF INDIA AND DIRECTOR GENERAL OF INDIAN OBSERVATORIES.

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JANUARY 1900.

INTRODUCTION.

THE monthly review of the weather in India for the month of January 1900 is based on observations taken daily at 8 A.M. at 221 stations, and on additional observations recorded at 10 A.M. and 4 P.M. at 66 stations. In the case of the rainfall section of the review there are also utilized the weekly rainfall telegrams received from district officers throughout India, and the rainfall statements of the month published in the Government Gazettes by the Provincial Governments that have 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, 1900.

The first-half of January 1900 in Northern India was unusually free from cold weather storms of any consequence. The principal features of the weather at this time were abnormal dryness of the air, a general absence of rain, more cloud than usual and very unsteady and changeable temperature conditions. From the 1st to the 13th there was practically no rain over the plains of Northern India, though there were some showers in parts of Burma, Assam and the south of the Peninsula at different times during this period. There were, however, slight falls of snow on two or three occasions on the hills around the north-west frontier, each of which falls was followed by a strong outflow of cool, dry air from the hills to the plains reducing both temperature and humidity to considerably below the normal. Thus on the 1st there was a light fall of snow in Kashmir and the following were the humidities

and the changes recorded in the Punjab, Rajputana and Gujarat on the morning of the 2nd:—

Province or Division.	Station.	Relative humidity recorded at 8 A.M. of 2nd January.	Change in past 24 hours.
		%	%
Punjab	Rawalpindi	32	−40
	Lahore	43	−38
	Mooltan	43	−35
	Montgomery	34	−23
	Sialkot	49	−23
	Simla	40	−22
	Sirsa	41	−18
	Umballa	69	−17
	Ludhiana	58	−17
	Peshawar	44	−17
Rajputana	Mount Abu	22	−38
	Deesa	27	−31
	Jodhpur	27	−30
	Kotah	41	−13
Gujarat	Bhavnagar-Para	30	−46
	Rajkot	40	−34
	Bhuj	63	−34
	Veraval	56	−33

Snow again fell in Kashmir and around the north-west frontier on the 5th and 6th and a rapid fall of humidity occurred over the Punjab (hills and plains) on the 7th and over Rajputana on the 8th. The following gives comparative data:—

Province or Division.	Station.	Date.	Relative humidity recorded at 8 A.M. of date.	Change in past 24 hours.
			%	%
Punjab	Simla	7th January	17	−52
	Peshawar	" "	33	−46
	Cherat	" "	33	−44
	Chaman	" "	48	−42
	Rawalpindi	" "	44	−35
	Murree	" "	33	−37
	Sialkot	" "	58	−22
	Umballa	" "	56	−17
	Mooltan	" "	55	−16
	Khushab	" "	53	−13
	Ludhiana	" "	62	−12
	Lahore	" "	64	−12
Rajputana	Mount Abu	8th "	25	−19
	Bikaner	" "	51	−19
	Udaipur	" "	39	− 9
	Jodhpur	" "	28	− 1

Similarly with temperature; on the 1st and 2nd the mean temperature was in large excess over the whole of Northern and Central India, while it was in defect over Burma and the south of the Peninsula. The following gives comparative data for Burma, South India and the West Coast as well as for the divisions in Northern and Central India within which the mean excess was over 5°:—

Date.	Province or Division.	Variation from normal of		
		Mean maximum temperature of date.	Mean minimum temperature of date.	Mean daily temperature of date.
		°	°	°
1st January	Burma	−0·5	−1·3	−0·9
" "	West Coast	−1·2	−3·6	−2·4
" "	South India	+1·5	−6·6	−2·6
" "	Chota Nagpur	+9·3	+4·2	+6·8
" "	N.-W. P. and Oudh	+8·4	+5·7	+7·1
" "	Punjab	+7·0	+4·0	+5·5
" "	Sind	+5·3	+10·0	+7·7
" "	Rajputana	+6·7	+6·7	+6·7
" "	Central India	+8·2	+6·4	+7·3
" "	Central Provinces	+10·7	+4·1	+7·4
" "	Berar	+10·5	+2·6	+6·6
2nd "	Burma	−0·8	−1·7	−1·3
" "	West Coast	−1·2	−3·7	−2·5
" "	South India	+2·3	−5·2	−1·5
" "	Orissa	+7·0	+3·4	+5·2
" "	Chota Nagpur	+7·8	+3·9	+5·9
" "	N.-W. P. and Oudh	+5·9	+4·5	+5·2
" "	Rajputana	+4·7	+5·6	+5·2
" "	Central India	+6·0	+6·2	+6·1
" "	Central Provinces	+9·8	+2·8	+6·3
" "	Berar	+11·1	+4·6	+7·9

The above shows the general conditions of temperature existing on the 1st and 2nd. On the 1st, as stated above a slight fall of snow occurred on the hills and this was followed by a fall of temperature of over 9° in Baluchistan on the 2nd and by the appearance of an area of reduced temperature over the Punjab and Sind on the 3rd. The following gives comparative data from the 2nd to the 5th over the Punjab and shows the passage of this slight wave of cold:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	2nd January.	3rd January.	4th January.	5th January.
	°	°	°	°
Punjab	+2·9	−0·1	−1·9	+0·7

On the 5th and 6th snow again fell over the hills on the north-west frontier and a cold wave started which extended to all parts of Northern India by the 11th. The following variation data show the progress of the wave :—

PROVINCE OR DIVISION.	VARIATION 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.	11th January.
	°	°	°	°	°	°	°
Baluchistan	+2·0	−4·5	−9·0	−8·2	−7·6	−3·5	+2·1
Sind	+1·9	−0·7	−1·4	−1·0	−2·3	−1·5	−3·0
Rajputana	+2·4	+5·3	+2·7	−3·5	−0·8	−1·3	−3·9
Gujarat	+3·8	+3·6	+2·9	−1·5	−2·3	−3·8	−1·2
Punjab	+0·7	+0·5	+0·1	−2·0	−1·9	−1·8	−0·5
North-Western Provinces and Oudh.	+1·2	+4·0	+4·0	−1·0	−1·2	−3·1	−2·4
Central India	+0·9	+2·7	+2·6	+0·1	+0·4	−1·9	−5·3
Bihar	+0·6	−0·8	+1·1	−1·1	−2·1	−3·6	−1·8
Chota Nagpur	+4·1	+4·0	+5·2	+2·6	+3·2	+2·3	+0·5
Orissa	+6·2	+4·7	+5·3	+6·5	+4·3	+4·9	+6·5
Bengal	+1·7	+0·4	+1·4	+1·2	+0·1	+1·4	+2·0
Assam	+0·8	−0·3	−1·3	−1·3	−2·3	−0·9	0

Over the central parts of the country the mean temperature during this period was generally excessive but was not unaffected by the passage of the cold wave across Northern India, as is shown by the following variation data from the 6th to the 11th for the Central Provinces and Berar :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	6th January.	7th January.	8th January.	9th January.	10th January.	11th January.
	°	°	°	°	°	°
Central Provinces	+6·6	+5·5	+3·8	+5·0	+3·1	+0·3
Berar	+8·0	+6·7	+4·3	+7·6	+4·1	+3·1

As mentioned above the mean temperature at the commencement of the month was lower than usual over the southern half of the Peninsula, but, on the 6th, a change commenced, and as the cold wave spread over Northern India the temperature rose over the Peninsula, and from the 7th to the 11th the heat was above the normal except in the West Coast districts. The following gives variation data for the Peninsula districts from the 6th to the 11th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	6th January.	7th January.	8th January.	9th January.	10th January.	11th January.
	°	°	°	°	°	°
West Coast	−2·4	−1·8	−1·0	−1·0	−0·6	−0·2
Bombay Deccan	+3·5	+2·5	+2·3	+3·1	+1·8	+2·1
Mysore	+0·9	+2·5	+4·7	+7·1	+5·9	+7·0
Madras Coast	+0·5	+1·5	+2·5	+3·1	+4·3	+3·0
Madras Deccan	+1·8	+1·2	+3·7	+6·8	+8·3	+5·9
South India	−0·8	+2·4	+3·6	+4·6	+1·7	+3·6

As the heat increased over the Peninsula the weather became somewhat unsettled and thunderstorms occurred over the south of the Peninsula on the 9th, 10th and 11th when the mean temperature was at its greatest excess. The following gives the heaviest falls of rain in 24 hours on this occasion :—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
COIMBATORE	Coimbatore	8th January	5·57
Do.	Avanashi	" "	3·60
Do.	Mettupalaiyam	" "	2·90
Do.	Satyamangalam	" "	2·73
Do.	Gopichettipalayam	" "	2·57
TINNEVELLY	Tuticorin	9th "	2·52
Do.	Arasadi	" "	2·50
TRAVANCORE	Agastisvaram	" "	2·01
Do.	Padmanabhapuram	" "	1·50
SALEM	Vercaud	10th "	2·20
TRAVANCORE	Shencottah	" "	1·90
TINNEVELLY	Keeranur	" "	1·75
TRAVANCORE	Ettamanur	" "	1·74
TINNEVELLY	Attapidaram	" "	1·50
Do.	Tenakasi	11th "	2·45
MADURA	Periyakulam	" "	1·60

About January the 13th the weather changed and became very unsettled over Northern India. This change was accompanied with a change in the pressure conditions existing in the lower and middle strata of the atmosphere as shown by the pressure conditions at the level of the plains and at the level of the hill stations. During the early part of the month when the weather was fine the barometric pressure was, relatively to the normal, higher

at the level of the hills than at the level of the plains. The vertical pressure anomaly was hence positive. After the 15th this relation changed and the reversal of the condition accompanied the change of weather from fine to unsettled. The following gives the vertical pressure anomalies for each fourth day throughout the month :—

STATION.	VERTICAL PRESSURE ANOMALY FOR							
	1st January.	5th January.	9th January.	13th January.	17th January.	21st January.	25th January.	29th January.
	"	"	"	"	"	"	"	"
Murree-Rawalpindi .	+·151	+·018	—·020	+·036	—·076	—·075	—·103	—·056
Quetta-Jacobabad .	+·090	—·004	+·046	+·035	—·001	—·057	—·133	—·005
Mount Abu-Deesa .	—·014	—·026	—·043	+·026	—·102	—·019	—·139	+·029?
Pachmarhi-Hoshangabad.	+·010	+·021	—·026	+·008	—·043	+·032	—·078	—·020

While the following table gives the mean vertical pressure anomalies for the first and for the second halves of the month :—

STATION.	Mean vertical pressure anomaly forlthe first half of January 1900.	Mean vertical pressure anomaly for the second half of January 1900.
	"	"
Murree-Rawalpindi	+·054	—·056
Quetta-Jacobabad	+·042	—·068
Mount Abu-Deesa	—·023	—·051
Pachmarhi-Hoshangabad	—·012	—·030

On the 12th pressure was giving way briskly to rapidly in Baluchistan, the West Punjab, Sind, Rajputana and Gujarat, and on the following day an ill-defined depression lay over the Western desert. This depression developed a secondary depression over the East and Central Punjab on the 14th, and the two depressions continued to affect the weather until the 18th by which date they had both filled up. Rain commenced in the Central Provinces on the 13th, and rain on the plains and snow on the hills of Northern India continued until the disappearance of the depressions on the 18th. Between the 13th and the 15th the rainfall exercised but little influence on the temperature conditions but on the 16th the mean temperature began to fall quickly at Quetta, and on the following day a well marked cold wave made its appearance over Baluchistan and North-Western and Western India. The progress of this wave was more southward than eastward as will be seen from the following table which gives variation data for Baluchistan and North-Western and Western India from the 16th to the 20th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	16th January.	17th January.	18th January.	19th January.	20th January.
	°	°	°	°	°
Punjab	+1·3	—1·3	—7·6	—6·3	—2·2
Baluchistan	—7·0	—15·0	—12·2	—3·1	—11·2
Sind	+0·7	—8·6	—11·1	—6·6	—6·4
Rajputana	—3·0	—4·6	—8·5	—8·1	—6·4
Gujarat	—2·4	—4·9	—9·1	—7·4	—2·5
West Coast	—0·3	—1·8	—3·5	—2·1	+0·9
Bombay Deccan . . .	—1·3	—3·8	—3·7	—0·5	+3·5

Remarkably low temperatures, both by day and night, were recorded on the hills and plains of North-West India during this wave. The following gives a few of the most remarkable variations at this time :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
16th January . .	Ranikhet . . .	—16·8	— 9·0	—12·9
" " . .	Chakrata . . .	—14·0	— 8·6	—11·3
" " . .	Murree . . .	—13·4	— 8·1	—10·8
" " . .	Quetta . . .	—10·8	— 6·9	— 8·9
" " . .	Simla . . .	— 9·1	— 8·0	— 8·6
" " . .	Deesa . . .	— 3·7	— 9·5	— 6·6
" " . .	Mount Abu . .	— 8·3	— 3·2	— 5·8
" " . .	Chaman . . .	— 2·3	— 7·7	— 5·0
" " . .	Rajkot . . .	— 3·9	— 5·7	— 4·8
17th " . .	Quetta . . .	—18·8	—11·9	—15·4
" " . .	Chaman . . .	—17·3	—11·6	—14·5
" " . .	Murree . . .	—15·8	— 9·6	—12·7
" " . .	Jacobabad . .	—10·6	—12·0	—11·3
" " . .	Cherat . . .	—12·4	— 9·0	—10·7
" " . .	Mount Abu . .	— 8·9	—10·4	— 9·7
18th " . .	Murree . . .	—17·2	—12·1	—14·7
" " . .	Mount Abu . .	—15·9	—13·3	—14·6
" " . .	Quetta . . .	—12·5	—12·2	—12·4
" " . .	Kurrachee . .	—10·3	—14·5	—12·4
" " . .	Cherat . . .	—14·0	—10·5	—12·3
" " . .	Simla . . .	—10·6	—13·9	—12·3
" " . .	Bhuj . . .	—12·9	—11·1	—12·0

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
19th January	Rajkot	—11·5	—11·2	—11·4
" "	Chakrata	—13·4	— 5·7	— 9·6
" "	Sirsa	— 9·7	— 8·7	— 9·2
" "	Simla	—10·2	— 7·9	— 9·1
" "	Bikaner	—11·0	— 6·9	— 9·0
20th "	Quetta	—20·0	— 2·3	—11·2
" "	Bikaner	—13·0	— 4·2	— 8·6
" "	Hyderabad (Sind)	—12·0	— 4·6	— 8·3

The following were the lowest minimum temperatures recorded on each day between the 16th and the 20th :—

Date.	Station.	Minimum temperature.		
		Actual. of date	Normal of date.	Variation of actual from normal of date.
		°	°	°
16th January	Deesa	43·6	53·1	— 9·5
" "	Cherat	29·0	38·1	— 9·1
" "	Ranikhet	30·5	39·5	— 9·0
" "	Chakrata	26·8	35·4	— 8·6
" "	Murree	26·5	34·6	— 8·1
" "	Simla	27·9	35·9	— 8·0
17th "	Quetta	18·3	30·2	—11·9
" "	Chaman	22·1	33·7	—11·6
" "	Hyderabad (Sind)	40·5	51·7	—11·2
" "	Neemuch	38·6	49·7	—11·1
" "	Mount Abu	41·6	52·0	—10·4
" "	Jaipur	39·5	49·8	—10·3
" "	Deesa	43·1	53·1	—10·0
" "	Murree	25·0	34·6	— 9·6
" "	Sambhar	38·0	47·1	— 9·1
" "	Cherat	28·5	37·5	— 9·0
18th "	Kurrachee	40·1	54·6	—14·5
" "	Simla	22·2	36·1	—13·9
" "	Hyderabad (Sind)	38·0	51·6	—13·6
" "	Mount Abu	38·6	51·9	—13·3
" "	Chaman	21·1	34·3	—13·2
" "	Quetta	17·8	30·0	—12·2
" "	Murree	22·5	34·6	—12·1
" "	Rajkot	40·1	51·4	—11·3
" "	Bhuj	43·5	54·6	—11·1
" "	Cherat	27·0	37·5	—10·5
" "	Sambhar	37·0	47·3	—10·3

Date.	Station.	Minimum temperature.		
		Actual. of date.	Normal. of date.	Variation of actual from normal of date.
		°	°	°
18th January	Bikaner	38·6	48·0	— 9·4
" "	Montgomery	33·5	42·4	— 8·9
" "	Ranikhet	32·0	40·0	— 8·0
19th "	Rajkot	40·1	51·3	—11·2
" "	Mount Abu	41·6	52·8	—10·2
" "	Sambhar	37·0	47·0	—10·0
" "	Jaipur	40·0	49·3	— 9·3
" "	Srinagar	15·6	24·8	— 9·2
" "	Sirsa	34·5	43·2	— 8·7
" "	Hyderabad (Sind)	43·5	51·5	— 8·0

Strongly pronounced high pressure conditions set in over North-Western India on the 18th when the two depressions had disappeared and fine weather prevailed except in the south of the Peninsula, where a few showers were received on the 19th and 20th. The reports of the 19th showed that a fresh depression was passing eastward along the Mekran Coast. This storm entered Lower Sind on the 20th and at the same time a secondary depression began to make its appearance over the Punjab and Kashmir Himalayas. These two depressions drifted eastward, the former through Rajputana, Central India and the Central Provinces to West Bengal, where it filled up on the 24th, and the latter along the line of the Himalayas to the East Submontane division of the North-Western Provinces where it also filled up on the 24th. This double depression occasioned the heaviest burst of snow on the hills and of rain on the plains that was experienced during the month. The following shows the more noteworthy falls of rain and snow on each day from the 20th to the 24th :—

District.	Station.	Date.		Rainfall during 24 hours preceding 8 A.M. of date.
				Inches.
KASHMIR	Sri Ranbir Singh Pora	14th	January	3·18
"	" "	20th	"	3·72
"	Pattan	"	"	2·56
"	Sri Ranbir Singh Pora	21st	"	3·49
GURDASPUR	Pathankot	22nd	"	3·82
"	Madhopur	"	"	3·15
KASHMIR	Sri Ranbir Singh Pora	"	"	3·12
GURDASPUR	Tibri	"	"	3·00

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kangra	Nurpur	22nd January	3·00
Garhwal	Kotdwara	24th "	3·93
Jaunpur	Mariahu	" "	3·41
Gorakhpur	Maharajganj	" "	3·19
Azamgarh	Deogaon	" "	3·11
Bijnor	Najibabad	" "	3·01
Garhwal	Lansdowne	" "	3·00

When the storms were central over the east of the North-Western Provinces (on the 23rd), severe hail-storms were experienced in that locality.

On the 20th snow recommenced in Baluchistan and the North-Western Himalayas, temperature fell again in the Punjab and a fresh cold wave started which spread both eastward and southward over Western and Northern India. The following variation data from the 21st to the 26th for Western, North-Western and Northern India illustrate these conditions :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	21st January.	22nd January.	23rd January.	24th January.	25th January.	26th January.
	°	°	°	°	°	°
Baluchistan	−9·4	−13·6	−21·8	−20·7	−18·2	−7·8
Punjab	−4·6	−3·1	−6·4	− 7·8	− 7·7	−6·8
Sind	−16·2	−7·4	−11·2	−12·0	−11·1	−8·9
Rajputana	−1·3	−3·5	−8·2	−11·2	− 9·6	−7·9
Gujarat	+0·7	−3·6	−8·6	−10·3	−11·5	−5·6
North-Western Provinces and Oudh	+2·4	−1·3	+0·2	− 1·6	− 2·6	−4·5
Central India	+4·5	+0·9	−0·4	− 3·7	−10·6	−7·2
West Coast	+2·8	+1·9	−0·1	− 1·8	− 2·4	−0·5
Bombay Deccan	+6·2	+6·0	+3·3	− 0·3	− 2·5	+2·6

Very low minimum temperatures were recorded at this time on the hills and plains of North-Western India. The most noteworthy on each day were as follows :—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
22nd January	Chaman	18·1	35·4	−17·3
"	Quetta	20·8	31·7	−10·9
"	Murree	24·5	35·0	−10·5
"	Hyderabad (Sind)	41·5	51·7	−10·2
23rd "	Quetta	8·8	31·8	−23·0
"	Kurrachee	42·2	56·4	−14·2
"	Hyderabad (Sind)	38·0	51·9	−13·9
"	Chaman	22·1	35·7	−13·6
"	Murree	21·5	34·9	−13·4
"	Bikaner	36·1	49·0	−12·9
"	Mount Abu	39·1	51·9	−12·8
"	Bhuj	43·0	55·1	−12·1
"	Rajkot	40·1	51·0	−10·9
"	Montgomery	34·0	44·1	−10·1
24th "	Quetta	3·3	30·8	−27·5
"	Jaipur	33·0	50·6	−17·6
"	Hyderabad (Sind)	36·0	52·1	−16·1
"	Chaman	19·1	35·1	−16·0
"	Bhuj	40·5	55·4	−14·9
"	Mount Abu	37·0	51·6	−14·6
"	Kurrachee	43·2	56·9	−13·7
"	Murree	21·5	34·5	−13·0
"	Montgomery	31·5	44·1	−12·6
"	Ajmer	38·9	46·3	−12·4
"	Neemuch	38·1	50·0	−11·9
"	Bikaner	38·1	49·2	−11·1
"	Simla	24·7	35·8	−11·1
"	Mooltan	34·0	44·7	−10·7
"	Peshawar	30·9	41·4	−10·5
25th "	Quetta	15·3	30·0	−14·7
"	Montgomery	31·0	43·4	−12·4
"	Chaman	23·1	35·3	−12·2
"	Mount Abu	39·6	50·8	−11·2
"	Simla	25·5	35·6	−10·1
26th "	Chaman	23·1	34·9	−11·8
"	Montgomery	32·0	43·5	−11·5
"	Sirsa	33·5	43·5	−10·0

During the whole of this period, while temperature was so low and unsteady in Northern and Western India, the heat was greater than usual in North-East India, and over the east of the Peninsula, and was generally greater than usual over the central districts. The follow-

ing gives comparative data for the Bengal, Central and Madras districts for each alternate day from the 16th to the 26th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	16th January.	18th January.	20th January.	22nd January.	24th January.	26th January.
	°	°	°	°	°	°
Assam	+0·4	+2·0	+2·8	+0·6	+4·3	+7·9
Bengal	+2·0	+2·9	+2·9	+3·0	+4·2	+5·2
Orissa	+1·6	+2·2	+0·8	+4·6	+2·2	+3·3
Bihar	−3·5	+3·0	+3·2	+3·8	+2·6	−1·1
Chota-Nagpur	−4·5	−2·2	+1·9	+5·8	+2·5	−1·1
Central Provinces	+1·5	+1·3	+1·3	+8·4	+4·9	−1·2
Berar	−0·1	0	+5·2	+8·2	+2·7	−0·5
Mysore	+3·8	+3·0	+6·5	+3·1	+2·4	+3·3
Madras Coast	+2·0	+2·1	+2·1	+1·4	+1·3	+1·2
Madras Deccan	+6·4	+4·3	+5·4	+3·9	+3·7	+4·6
South India	+1·4	+2·1	+2·5	+1·6	+2·7	+3·3

Anti-cyclonic conditions and generally fine weather prevailed over India from the 25th to the end of the month, but between the 27th and 31st a very shallow depression, which had no important effect on the general conditions of pressure, passed from west to east through the central parts of the country, giving light showers to Rajputana, the North-Western Provinces and West Bengal. These showers reduced temperature over North-East India, as is shown by the following data for Assam and Bengal from the 26th to the 31st :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	26th January.	27th January.	28th January.	29th January.	30th January.	31st January.
	°	°	°	°	°	°
Assam	+7·9	+4·1	+0·6	+2·7	+2·3	+3·0
Bengal	+5·2	+2·4	+1·7	+2·6	+3·1	+5·2

Elsewhere temperature generally increased during the last week of the month and at the close of the month was in excess in most parts of the Indian area. The following gives variation data for the period from the 26th to the 31st for all divisions except Bengal and Assam :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	26th January.	27th January.	28th January.	29th January.	30th January.	31st January.
	°	°	°	°	°	°
Burma	+2·3	+3·9	+6·0	+5·4	+ 5·2	+4·7
Orissa	+3·3	+3·0	+3·4	+3·4	+ 2·0	+3·6
Bihar	−1·1	−2·6	−1·8	−4·8	+ 2·4	+5·7
Chota Nagpur	−1·1	+0·7	+3·7	+2·7	+ 5·1	+6·2
North-Western Provinces and Oudh.	−4·5	−4·0	−4·0	−0·2	+ 2·3	+5·7
Punjab	−6·8	−2·9	−0·8	+1·8	+ 1·7	+3·5
Sind	−8·9	−3·2	−4·8	−2·6	+ 0·8	−0·1
Rajputana	−7·9	−3·1	−1·1	+1·4	+ 3·8	+4·7
Gujarat	−5·6	−3·7	−1·6	−1·8	− 0·7	−0·9
Central India	−7·2	−3·9	−0·7	−0·6	+ 2·3	+3·4
Central Provinces	−1·2	+1·6	+5·3	+6·5	+ 7·2	+9·1
Berar	−0·5	+6·8	+9·6	+8·2	+10·4	+8·2
West Coast	−0·5	+0·4	+0·9	−0·4	+ 0·2	+0·7
Bombay Deccan	+2·6	+4·5	+5·4	+4·5	+ 4·2	+3·8
Mysore	+3·3	+5·4	+4·6	+3·5	+ 3·2	+2·7
Madras Coast	+1·2	+1·7	+1·5	+2·6	+ 2·3	+2·4
Madras Deccan	+4·6	+5·4	+5·5	+5·1	+ 3·5	+3·6
South India	+3·3	+3·3	+2·8	+2·2	+ 3·1	+4·1

Pressure.—Pressure was, on the average of the whole Indian area, 0·004″ lower than usual. Relatively to this general condition, pressure was in excess in Sind, Gujarat, the Konkan, Malabar, South Madras, the south of the Bay, Central Bengal and Upper Burma. The positive anomalies were generally small except at the following stations :—

Province or Division.	Station.	Variation from normal of mean 8 A. M. pressure of January 1900.	Pressure anomaly, January 1900.
		″	″
Sind	Kurrachee	+·029	+·033
	Jacobabad	+·021	+·025
	Hyderabad (Sind)	+·017	+·021
South Madras	Trivandrum	+·016	+·020
Bengal	Purnea	+·023	+·027
	Dinajpur	+·020	+·024
Burma	Bhamo	+·064	+·068
	Mandalay	+·052	+·056
	Kindat	+·040	+·044
	Yamethin	+·018	+·022

Pressure was in slight relative defect all over the inland parts of the country, the deficiency amounting to 0 02″, or above, at the following places: —

STATION.	Variation from normal of mean 8 A. M. pressure of January 1900.	Pressure anomaly, January 1900.
	″	″
Amraoti	—·031	—·027
Nowgong	—·029	—·025
Sutna	—·026	—·022
Sambalpur	—·026	—·022
Raipur	—·026	—·022
Secunderabad	—·024	—·020
Delhi	—·024	—·020

The vertical pressure anomalies were generally small and rather irregular. In the case of Murree and Peshawar, Ranikhet and Bareilly and Darjeeling and Dhubri, the vertical anomaly was positive, while at the remaining pairs of stations, the anomaly was slightly negative, or there was no difference. The following table gives the mean pressure variations and anomalies of the month for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A. M. pressure of January 1900.	Pressure anomaly, January 1900.
	″	″
Burma Coast and Bay Islands	—·004	0
Burma Inland	+·029	+·033
Assam	—·004	0
Bengal and Orissa	—·003	+·001
Gangetic Plain and Chota Nagpur	—·008	—·004
Upper Sub-Himalayas	—·012	—·008
Indus Valley and North-West Rajputana	+·002	+·006
East Rajputana, Central India and Gujarat	—·010	—·006
Deccan	—·015	—·011
West Coast	0	+·004
South India	—·002	+·002

Temperature.—The variations of the mean temperature conditions of the month from the normal were large and strongly marked. The mean day or maximum temperature was lower than usual along the West Coast and over the whole of Northern India, except Bengal and Assam. The deficiency was between 2½° and 4½° in the extreme north-west of India, on the West Coast and over the South Gangetic Plain, but was small elsewhere. Over the whole of the remainder of India the maximum temperature was in excess. This excess was greatest and between 4° and 6° over the Central Provinces, the Deccan and Mysore. The day temperatures were lower than usual at the hill stations in Rajputana, Baluchistan and the North-West Himalayas, but were higher than usual at the hill stations in North-Eastern, Central and Southern India. The mean maximum temperature of the month was inconsiderable to large defect at the hill stations in Upper India, more particularly in Kashmir (Leh—7.°6), while it was in moderate defect in Persia and in large defect in Baluchistan.

The mean minimum temperature of the month was in marked defect over Baluchistan, the Punjab, Rajputana, North Bombay and the West Coast. The deficiency was nearly as great as in the case of the maximum temperature. Over the whole of the remainder of India the mean night temperature exceeded the normal, the excess having been greatest and large, across the head of the Peninsula. The mean night temperature was lower than usual at the level of the hills in Upper India, in fact the relative deficiency was greater on the hills than on the neighbouring plains.

The above shows that both the day and night temperatures were below the normal over Baluchistan, North-West India and along the West Coast, that the day temperature was below and the night temperature above the normal over the Gangetic Plain, and that over the remainder of India both the day and night temperatures were above the normal. The mean temperature of the month was consequently below the normal over Baluchistan, North-West India and the West Coast, slightly above the normal in the Gangetic Plain and North Bengal and slightly to largely above the normal elsewhere.

The following gives variation data for the eleven meteorological provinces of the Empire :—

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, January 1900.	Mean minimum temperature, January 1900.	Mean daily temperature, January 1900.
	°	°	°
Burma Coast and Bay Islands	+1·3	+2·9	+2·1
Burma Inland	+0·3	+3·1	+1·8
Assam	+0·8	+1·8	+1·3
Bengal and Orissa	+1·5	+3·1	+2·3
Gangetic Plain and Chota Nagpur	—0·8	+3·3	+1·3
Upper Sub-Himalayas	—1·1	+0·6	—0·2
Indus Valley and North-West Rajputana	—2·7	—2·6	—2·7
East Rajputana, Central India and Gujarat	—1·8	—0·4	—1·1
Deccan	+3·7	+4·1	+3·9
West Coast	—1·5	+0·3	—0·6
South India	+2·9	+2·3	+2·6

Winds.—The winds were more northerly than usual on the Burma Coast and in the Bay Islands. In Bengal, the westerly element in the wind's direction was less pronounced than usual, and over the whole of this area the steadiness was generally low. In West Bengal the wind was very unsteady, while in the lower part of the Gangetic Plain the wind was much stronger and more northerly than the average. In Upper India, Rajputana and the Indus Valley, the wind was generally slightly steadier than usual, the direction a little more westerly, and the velocity about the normal. The air movement over the Peninsula was generally stronger than usual, except on the Madras Coast, but the steadiness was even lower than the normal.

The directions varied irregularly from the normal, except in the west and centre of the country, where the direction was more westerly than usual.

Humidity.—The air was slightly damper than usual on the East and South-West coasts of the Peninsula, in the east of the North-Western Provinces, the west of Bengal, Arakan and the Andamans. Over the whole of the remainder of the country it was drier than the average. The increased dryness was most marked in Sind, but was strongly marked in the Bombay Deccan and Mysore. The mean humidity of the month was 15 or upwards below the normal at Kurrachee (—24), Deesa (—16), Buldana (—26), Khandwa (—15) and Sholapur (—15).

In Baluchistan and at the hill stations in Upper India the relative humidity was generally in slight excess, but at Leh, on the contrary, it was in large defect.

The following table gives variation data of the mean aqueous vapour pressure and mean humidity of nine meteorological provinces for the month :—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, January 1900.	Variation of actual from normal, January 1900.	Average actual, January 1900.	Variation of actual from normal, January 1900.
	"	"	%	
Burma Coast and Bay Islands.	·701	+·045	71	+ 1
Bengal and Orissa .	·562	+·081	75	+ 2
Gangetic Plain and Chota Nagpur.	·380	+·046	69	+ 6
Upper Sub-Himalayas .	·249	—·034	59	— 7
Indus Valley and North-West Rajputana.	·190	—·078	44	—12
East Rajputana, Central India and Gujarat.	·172	—·092	31	—14
Deccan . . .	·307	—·040	38	—10
West Coast . . .	·549	—·035	66	— 4
South India . . .	·456	—·006	55	— 4

Cloud.—The amount of cloud was less than usual over Lower Burma, the Bay Islands, the hills and plains of the North Punjab and part of the south of the Peninsula. The deficiency was considerable at Rangoon and Srinagar, but was inconsiderable elsewhere. Over the whole of the remainder of India, including both hills and plains, the cloud amount was in excess. This excess was greatest and large, over Orissa, Bihar, Chota Nagpur, the North-Western Provinces and the Central Provinces.

The following table gives variation data of the mean cloud amount of nine meteorological provinces for the month under review:—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, January 1900.	Variation of actual from normal, January 1900.
Burma Coast and Bay Islands . . .	2·1	—0·2
Bengal and Orissa	3·6	+2·0
Gangetic Plain and Chota Nagpur . . .	5·9	+4·0
Upper Sub-Himalayas	4·9	+1·1
Indus Valley and North-West Rajputana .	3·8	+0·3
East Rajputana, Central India and Gujarat .	3·6	+0·9
Deccan	3·4	+1·7
West Coast	1·5	+0·4
South India	3·3	+0·6

Rainfall.—The rainfall of the month was more or less above the normal over a considerable part of Northern India and the greater part of the Central Provinces. It was also in excess over the extreme south of the Peninsula, but was less than usual over the remainder of India and in Burma. There were three periods of rainfall over Northern India between the 15th and the end of the month, and the total rainfall was in large to very large excess over West Bengal, the North-Western Provinces and part of the Punjab. The excess was greatest and very large over the east submontane division of the North-Western Provinces. The Central Provinces and the east of Central India received rain under much the same conditions as Northern India, and the central and east divisions of the Central Provinces and the east division of Central India received heavier rain than usual. The excessive rain in the extreme south generally occurred during the first half of the month. Burma, North Bombay, Western Rajputana and a large part of the Peninsula were actually or practically rainless throughout the month. The following table

gives data for the eleven meteorological provinces of the Empire :—

Meteorological Province.	Rainfall.			
	Mean actual for January 1900.	Mean normal for January.	Variation of actual from normal, January 1900.	Percentage variation from normal.
	Inches.	Inch.	Inches.	
Burma Coast and Bay Islands	0·37	0·35	−0·23*	− 66
Burma Inland	0·10	0·22	−0·12	− 55
Assam	0·57	0·86	−0·29	− 34
Bengal and Orissa	0·24	0·44	−0·20	− 45
Gangetic Plain and Chota Nagpur	2·43	0·71	+1·81*	+255
Upper Sub-Himalayas	1·89	1·67	+0·21*	+ 13
Indus Valley and North-West Rajputana	0·30	0·55	−0·26	− 47
East Rajputana, Central India and Gujarat.	0·16	0·30	−0·10*	− 33
Deccan	0·31	0·29	+0·03*	+ 10
West Coast	0·31	0·24	+0·07	+ 29
South India	0·50	0·49	−0·04*	− 8

* A reference to table I will show that the means in 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 therefore will not agree with the figures in column I.

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.	Dunga (Zanzibar).	Negapatam.
Akyab.	Faridpur.	Noakhali.
Arrah.	Gorakhpur.	Nowgong.
Barisal.	Hyderabad (Sind).	Perim.
Bogra.	Jacobabad.	Rampur Boalia.
Bushire.	Jalpaiguri.	Rangpur.
Chapra.	Kindat.	Sambhar.
Cochin.	Mandalay.	Tavoy.
Cocos Island.	Mangalore.	Toungoo.
Comilla.	Midnapore.	Zanzibar.
Cuddapah.	Moulmein.	
Dinajpur.	Mymensing.	

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 :—

Amini Divi.	Kurnool.	Trivandrum.
Dehra.	Mercara.	Wellington.
Karwar.	Patiala.	
Katmandu.	Sharigh.	

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 Lashio, Bhamo, Shortt's Island, Daltonganj, Purulia, Bikaner, Pachpadra, Kotah, Veraval, Aurangabad, Bidar, Hanamkonda, Periyakulam, Shahrig, Astor, Minimarg, Skardu, Dras, Kailang, Chitral, Cherat, Muktesar, Gantok, Teheran, Ispahan, Jask, Baghdad, Bussorah, Kashgar and Dunga (Zanzibar) have been obtained as accurately as possible. 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. and are corrected to constant gravity (Lat. 45°), and in the cases of all stations, the elevations of which are accurately known and are below 3,500 feet, to sea-level. Each reading is separately corrected and the means of the month are the means of the daily corrected readings.

In Table I, columns 2 to 8, 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 variation from the normal mean pressure (reduced to 32° F) of the month, the mean 8 A.M. pressure corrected to constant gravity and to sea-level, 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, under the 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 daily pressure reduced to 32° F. and its variation from the normal, and the mean daily pressure reduced to 32° F. and corrected to constant gravity and sea-level for all second class observing stations. The mean daily pressures have been obtained for all stations except Jamnagar, Muktesar, Mysore, Udaipur, Periykulam, Waltair, Wellington, Zanzibar, and Seychelles (for which crude means are used) 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 the means are taken from the readings 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 $\frac{1}{20}$th of an inch. The second chart (Plate II) gives the variations 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 sixteen years' period 1878—93, 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, 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 variations 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, and hence are the means for very varying numbers of years, ranging from three years in the case of the Seychelles to fifty years in the case of Bombay.

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 variations derived from comparison of these observations with the normal daily or monthly 8 A.M. values

The mean pressure of the whole Indian land area for January 1900 was ·004″ below the normal. The variation was hence very similar to that recorded in the same month last year, but was opposite to and considerably less than the variations recorded during the autumn months of 1899.

Relatively to the general condition, pressure, on the mean of the month, was in excess over Sind, Western Rajputana, Gujarat, the Konkan, Malabar, South Madras, the south of the Bay, Central Bengal and Upper Burma. The variations were generally small, but exceeded 0·02″ in the four following areas for which comparative data are given below :—

PROVINCE.	STATION.	Variation from normal of mean 8 A.M. pressure of January 1900.	Pressure anomaly, January 1900.
		″	″
SIND	Kurrachee	+·029	+·033
	Jacobabad	+·021	+·025
BAY ISLAND	Port Blair	+·021	+·025
BENGAL	Purnea	+·023	+·027
UPPER BURMA	Bhamo	+·064	+·068
	Mandalay	+·052	+·056
	Kindat	+·040	+·044

The largest and most important excess of pressure was hence shown over Upper Burma, but in Sind also the excess was moderately large. Pressure, on the mean of the month, was lower than usual in two areas. The first included the whole of the inland parts of India, the deficiency being greatest at the most central stations. The following gives data for the stations at which the deficiency amounted to 0·02″ or more :—

STATION.	Variation from normal of mean 8 A.M. pressure of January 1900.	Pressure anomaly, January 1900.
	″	″
Chanda	—·045	—·041
Jubbulpore	—·044	—·040
Amraoti	—·031	—·027
Nowgong	—·029	—·025
Sutna	—·026	—·022
Sambalpur	—·026	—·022
Raipur	—·026	—·022
Akola	—·025	—·021
Secunderabad	—·024	—·020
Delhi	—·024	—·020

The second area of defect included the Assam Valley, East Bengal, the Arakan Coast and part of Lower Burma

Within this area the departures from the normal were generally small, amounting to 0·01″ only at the following stations:—

PROVINCE.	STATION.	Variation from normal of mean 8 A.M. pressure of January 1900.	Pressure anomaly, January 1900.
		″	″
ASSAM VALLEY	Sibsagar	—·014	—·010
ARAKAN	Akyab	—·014	—·010
LOWER BURMA	Moulmein	—·018	—·014
	Rangoon	—·015	—·011

The principal features of the abnormal pressure distribution were (1) the slight deficiency in the central districts of India, (2) the slight excess in Sind, and the (3) slight to considerable excess over Upper Burma and the slight excess over the south of the Bay.

At the stations on the outer ranges of the North-West Himalayas the mean pressure, relatively to the normal, was similar to that on the adjacent plains, but on the inner ranges, as for example at Srinagar and Leh, there existed a moderate to considerable deficiency of pressure, while on the Punjab plains the mean pressure was about normal. Over the Sikkim Himalayas there was a slight excess of pressure which was slightly greater than the excess on the plains at the foot of the hills. In Rajputana and the Central Provinces pressure at the level of the hills was lower, relatively to the average, than on the neighbouring plains, while in Southern India there was no difference. The following gives comparative data for ten pairs of stations:—

HILL STATION.	Variation of actual from normal pressure, January 1900.	PLAIN STATION.	Variation of actual from normal pressure, January 1900.	Vertical pressure anomaly, (Hill—Plain).
	″		″	″
Quetta	+·006	Jacobabad	+·021	—·015
Leh	—·066	Lahore	—·017	—·049
Murree	+·006	Peshawar	—·018	+·024
Simla	—·025	Ludhiana	—·019	—·006
Chakrata	—·017	Roorkee	—·017	0
Ranikhet	+·003	Bareilly	—·018	+·021
Darjeeling	+·047	Dhubri	—·005	+·052
Mount Abu	—·048	Deesa	—·011	—·037
Pachmarhi	—·024	Khandwa	—·010	—·014
Wellington	+·001	Coimbatore	0	+·001

The above shows that the vertical pressure anomalies were generally negative except in the north-east, but that the anomalies were small almost everywhere.

Barometric depressions and cyclonic storms of the month.

Between the 1st and the 7th anti-cyclonic conditions of greater or less intensity prevailed over the Indian region. During this period pressure was highest over North-West India and was lowest in the south of the Bay, while northerly winds prevailed over the extreme north-west of India, westerly winds down the Gangetic Plain, and variable breezes over the Peninsula. The weather, with the exception of a few local snow showers on the higher ranges surrounding the north-west frontier of India, was fine over the Indian region, but further to the westward in Afghanistan and Persia rain or snow was reported from the 2nd to the 5th.

On the 8th January, owing to a rapid rise of pressure in North-East India, and a rapid to very rapid fall in the north-west, the distribution of barometric pressure over India was completely changed. The anti-cyclone was transferred to North-East India and pressure became lowest in Sind. The extent of this change is shown by

the following table which gives the barometric change during the 24 hours ending at 8 A.M. on the 8th for certain representative stations in North-West and North-East India :—

PROVINCE OR DIVISION.	STATION.	Barometric change during 24 hours preceding 8 A.M. of 8th January 1900.
		"
NORTH-WEST INDIA	Jacobabad	—·209
	Hyderabad (Sind)	—·208
	Kurrachee	—·183
	Mooltan	—·183
	Dera Ismail Khan	—·177
	Chaman	—·170
	Quetta	—·152
	Peshawar	—·148
	Khushab	—·138
	Bhuj	—·132
	Cherat	—·127
	Montgomery	—·114
	Mount Abu	—·113
	Pachpadra	—·111
	Bikaner	—·107
	Deesa	—·107
NORTH-EAST INDIA	Sibsagar	+·128
	Purnea	+·127
	Kindat	+·125
	Dinajpur	+·118
	Dhubri	+·115
	Darbhanga	+·114
	Jalpaiguri	+·114
	Bogra	+·111
	Bhamo	+·107
	Berhampore	+·104

A very rapid recovery in pressure took place over North-West India on the 9th, as is shown by the following table which gives the barometric changes between 8 A.M. on the 8th and 8 A.M. on the 9th :—

STATION.	Barometric change during 24 hours preceding 8 A.M. of 9th January 1900.
	"
Dera Ismail Khan	+·310
Peshawar	+·297
Rawalpindi	+·289
Khushab	+·284
Cherat	+·268
Sialkot	+·252
Mooltan	+·247
Lahore	+·236
Dehra Dun	+·236
Meerut	+·235
Jacobabad	+·226
Ludhiana	+·223
Roorkee	+·217
Montgomery	+·215
Hyderabad (Sind)	+·213
Sirsa	+·208
Umballa	+·207
Delhi	+·187
Kuarrachee	+·185
Bahraich	+·173
Bareilly	+·161
Bikaner	+·156

The change reestablished anti-cyclonic conditions over North-West India. These conditions continued during the 10th, but the observations on the morning of the 11th showed that a brisk barometric fall had commenced in North-West India and that the anti-cyclonic area had been transferred eastward to the Gangetic Plain. The eastward movement of the anti-cyclonic conditions continued during the 12th, so that, by the morning of the 13th, they were established in the north-east. On this day pressure was giving way briskly to rapidly over Sind, Rajputana and the central parts of the country, and an ill-defined depression was shown over the Western desert. This depression probably advanced to this position from Persia, where the barometer fell on the 11th and 12th with rainy unsettled weather. The following gives the observations

recorded at the Persian stations on the 11th, 12th and 13th:—

Date.	Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
		"	"	"				Inch.	
11th Jan.	Baghdad	30·050	−·101	−·173	SE	4	1	...	
" "	Bushire	30·132	−·015	+·023	SE	4	4	...	Sea smooth.
" "	Teheran	...	+·100	...	...	1	0	...	
" "	Ispahan	...	+·030	...	Calm	1	10	...	
" "	Jask	30·080	+·018	+·016	NNE	8	2	...	
12th "	Baghdad	30·160	+·110	−·068	NNW	4	0	0·04	
" "	Bushire	30·059	−·073	−·050	SE	6	6	...	Sea slight.
" "	Teheran	...	−·100	...	...	2	9	...	
" "	Ispahan	...	−·080	...	Calm	1	0	...	
" "	Jask	29·993	−·087	−·075	NNW	9	0	...	
13th "	Baghdad	30·333	+·173	+·109	Calm	1	0	...	
" "	Bushire	30·094	+·035	−·010	NW	6	4	...	Sea rising.
" "	Teheran	...	+·020	...	...	0	9	0·50	
" "	Ispahan	...	+·050	...	SW	2	0	...	
" "	Jask	29·962	−·031	−·117	NW	14	0	...	Nor'-wester.

The depression moved from the Western desert into Rajputana during the 24 hours between 8 A.M. on the 13th and 8 A.M. on the 14th and thence passed eastward into the eastern states of Central India during the succeeding 24 hours. It occasioned rain over several central districts where rain was much required, but this can be more conveniently dealt with later. In the meantime, on the 14th, when the above-mentioned shallow depression lay over Eastern Rajputana, a secondary depression was developed over the Punjab, occasioning a rapid fall of the barometer over that province. The following gives data for the Punjab and Eastern and Northern Rajputana stations for 8 A.M. on the 14th:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"					
Sirsa	29·860	−·223	−·206	SE	10	3	...	
Ludhiana	·897	−·180	−·162	SE	4	9	...	Duststorm.
Montgomery	·871	−·163	−·217	N	4	0	...	
Lahore	·906	−·162	−·177	E	1	6	...	
Khushab	·921	−·152	−·143	NNE	2	4	...	
Sialkot	·950	−·124	−·111	E	1	8	...	
Rawalpindi	29·992	−·115	−·114	Calm	1	3	...	
Delhi	·931	−·115	−·134	SE	9	4	...	Strong wind.
Peshawar	·987	−·114	−·175	Calm	1	6	...	
D. I. Khan	·951	−·112	−·166	Calm	1	2	...	
Mooltan	·930	−·107	−·188	Calm	1	0	...	
Bikaner	·911	−·102	−·146	WSW	4	0	...	
Jaipur	·915	−·094	−·159	ENE	5	0	...	
Sambhar	·920	−·089	−·158	Calm	5	0	...	
Ajmer	·961	−·063	−·165	Calm	1	0	...	

The above shows that the central area of depression lay over the South Punjab apparently between Mooltan, Sirsa and Montgomery where the barometer marked more than 0·20″ below the normal. The changes on the next two days were peculiar. The barometer on the 15th had apparently risen somewhat over Eastern Rajputana and the Hissar district of the Punjab, while it had fallen over the West Punjab. As a result the depression had apparently been transferred westward and the centre seemingly lay over the Mooltan district. The following gives 8 A.M. data 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Mooltan	29·895	−·035	−·219	NE	1	0	...	
Rawalpindi	·954	−·038	−·152	Calm	5	7	0·75	
Sialkot	·930	−·020	−·144	E	4	9	0·02	
D. I. Khan	·936	−·015	−·177	Calm	2	6	...	
Bikaner	·933	+·022	−·126	WSW	8	1	...	
Ludhiana	·923	+·026	−·149	S	9	6	...	
Lahore	·909	+·003	−·178	SE	5	10	...	
Delhi	·944	+·013	−·130	Calm	7	0	0·33	Thunder-storm with hail.
Khushab	·931	+·010	...	Calm	6	7	...	Duststorm.
Peshawar	·987	0	−·177	Calm	2	8	...	
Umballa	·925	+·029	...	SE	6	2	0·19	Showery.
Montgomery	·906	+·035	−·178	SE	5	9	...	
Sirsa	·942	+·082	−·142	SW	6	0	...	

January 16th.—The observations of this day showed that pressure had been steady or had given way slightly at Mooltan, Khushab and Montgomery, while it had increased in surrounding regions, more particularly in the North Punjab. Hence the storm had become much better defined with moderately steep surrounding gradients and a well marked cyclonic circulation of the winds. The following gives 8 A.M. data 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Mooltan	29·879	—·016	—·235	Calm	1	0	...	
Khushab	·930	—·001	—·136	NNE	8	3	0·06	Showery.
Peshawar	30·131	+·144	—·047	SW	3	10	0·70	Raining.
Rawalpindi	·029	+·075	—·078	NW	5	0	0·86	
Ludhiana	29·976	+·053	—·089	S	4	7	...	Strong wind.
Sialkot	·980	+·050	—·089	E	6	5	0·01	Gale.
Lahore	·951	+·042	—·135	SE	4	3	...	
D. I. Khan	·956	+·020	—·154	NE	3	10	...	Drizzling.
Sirsa	·981	+·039	—·104	SW	5	0	...	
Umballa	30·020	+·095	+·011	SE	4	6	...	
Montgomery	29·908	+·002	—·184	E	7	3	...	
Jacobabad	·993	+·014	—·078	NW	7	0	...	Severe nor'-wester.
Cherat	...	+·029	—·105	N	12	10	1·02	Snow-storm.
Murree	...	—·022	—·107	SE	20	9	0·74	Snow-storm.
Srinagar	...	+·055	—·189	Calm	4	10	...	Snow-storm.
Simla	...	+·070	—·074	E	6	7	0·08	Snow-storm.
Chakrata	...	+·124	—·024	N	11	10	0·74	Thunder-storm with hail.
Mussoorie	...	+·100	—·007	E	...	7	0·08	Frosty.
Ranikhet	...	+·079	—·001	NE	2	8	0·60	Frosty.

The above shows that pressure was nearly one quarter of an inch below the normal at Mooltan, and that the weather was very unsettled over the West Punjab and the North-Western Himalayas.

January 17th.—The chart of this day showed that the storm had moved north-eastward and was central near Lahore. The following gives 8 A.M. data for the 17th:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Quetta	+·076	+·076	—·048	Calm.	4	0	...	Frosty.
Lahore	—·046	—·046	—·177	SE	9	10	0·31	
Montgomery	+·027	+·027	—·163	SW	15	1	...	Severe gale.
Mooltan	·974	+·095	—·141	NE	2	10	0·01	
Khushab	·943	+·013	—·133	NW	19	9	0·12	Showery.
Dera Ismail Khan.	·993	+·037	—·121	Calm.	9	10	0·21	Drizzling.
Ludhiana	·965	—·011	—·109	S	8	10	0·67	Dust storm with rain.
Sirsa	·986	+·005	—·106	SW	7	0	...	Duststorm.
Roorkee	·951	—·130	—·098	SE	5	7	...	
Sialkot	·987	+·007	—·086	E	7	9	1·50	Raining.
Delhi	·987	—·035	—·080	SE	10	8	...	
Dehra-Dun	·967	—·056	—·074	E	8	5	...	
Peshawar	30·091	—·040	—·077	Calm.	2	10	0·29	Raining.
Umballa	29·971	—·049	—·041	SE	7	10	0·20	Showery.
Cherat	...	+·023	—·087	N	14	10	0·25	Snowing.
Murree	...	—·008	—·113	Calm.	20	10	1·10	Snowing.
Srinagar	...	+·002	—·138	NNE	4	10	0·03	Snow-storm.
Simla	...	—·066	—·140	WNW	8	10	0·01	Snow-storm.
Chakrata	...	—·032	—·053	N	17	10	0·15	Snow-storm.
Mussoorie	...	—·032	—·042	E	...	7	0·03	Strong wind.
Ranikhet	...	+·029	+·032	E	4	10	0·02	Snowing.

The above shows that the barometer was rising slightly to briskly in Baluchistan and the West Punjab and was falling briskly to rapidly in the Simla and Mussoorie hill districts. The depression had filled up somewhat, but remained a well-defined storm with a fairly well-marked cyclonic circulation of the winds around the centre.

January 18th:—A very rapid recovery of pressure had occurred and the storm had practically filled up, only a slight residual depression being shown at the foot of

the Kumaun Himalayas. The following gives 8 A.M. data for the storm area for this day :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Jacobabad	30·325	+·294	+·257	E	5	0	...	
Mooltan	·351	+·377	+·233	NE	1	0	...	
Dera Ismail Khan.	·371	+·378	+·249	NW	3	0	0·26	
Montgomery	·311	+·376	+·206	N	8	0	...	
Lahore	·296	+·391	+·191	Calm.	4	0	...	Foggy.
Khushab	·325	+·382	+·233	Calm.	10	0	0·35	
Peshawar	·399	+·308	+·218	S	2	0	0·11	Showery.
Rawalpindi	·359	+·273	+·209	Calm.	5	3	0·43	
Sialkot	·276	+·289	+·191	W	5	3	0·22	
Umballa	·223	+·173	...	Calm.	1	6	0·74	Showery.
Ludhiana	·280	+·315	+·179	Calm.	3	4	...	
Dehra-Dun	·224	+·257	+·115	Calm.	6	8	0·79	Thunder-storm with hail.
Meerut	·196	+·190	+·123	Calm.	4	0	...	
Roorkee	·202	+·251	+·130	Calm.	8	5	0·47	Thunder-storm with hail.
Bareilly	·147	+·125	+·094	Calm.	6	8	1·23	Continuous rain.
Mainpuri	·141	+·124	+·104	Calm.	2	8	...	
Ranikhet	...	+·093	+·127	NE	5	8	0·31	Snow storm.
Mussoorie	...	+·140	+·095	E	...	6	1·42	Snow storm.
Chakrata	...	+·130	+·078	SE	10	8	1·52	Snow storm.

The above shows that there had been a remarkably rapid rise of pressure over North-Western India and that pressure was in large to very large excess in the Punjab and Sind, while the cyclonic circulation had disappeared and been replaced by northerly and north-westerly winds.

The rainfall and snowfall which accompanied this storm, or rather these storms, were the first general falls in North-Western India for several months. The rainfall commenced very feebly in the Central Provinces on the 13th. It continued over the Central Provinces and extended into Bundelkhand, Baghelkhand and part of the North-Western Provinces on the 14th, while at the same time snow and rain commenced falling over the North-West Himalayas and the submontane districts of Upper India. The rainfall area increased on the 15th, when it embraced Baluchistan, the Upper India hill districts, the North Punjab, the North-Western Provinces, Baghelkhand, Bundelkhand, the Central Provinces and Bihar. On the 17th the rainfall extended into Bengal while rain and snow continued in the Upper India hill and submontane districts, but more or less ceased over the North-Western Provinces. On the 18th light to moderate falls of snow were reported over the Punjab hills and moderate rain on the plains while light showers fell in North-East India. On the 19th rain practically ceased.

The precipitation accompanying these storms set in motion a well-marked cool wave and the mean temperature fell very rapidly in the north-west on the 17th and 18th. The following gives a few of the more remarkable variations from the normal, in the temperatures registered during the 24 hours preceding 8 A.M. on the 18th :—

Station.	Variation from normal of		
	Maximum temperature, 18th January.	Minimum temperature, 18th January.	Mean temperature, 18th January.
	°	°	°
Murree	−17·2	−12·1	−14·7
Mount Abu	−15·9	−13·3	−14·6
Kurrachee	−10·3	−14·5	−12·4
Quetta	−12·5	−12·2	−12·4
Cherat	−14·0	−10·5	−12·3
Bhuj	−12·9	−11·1	−12·0
Chaman	−10·6	−13·2	−11·9
Dera Ismail Khan	−19·4	− 2·5	−11·0
Rajkot	− 9·7	−11·3	−10·5
Deesa	−12·7	− 6·8	− 9·8
Bikaner	− 9·9	− 9·4	− 9·7
Montgomery	− 9·4	− 8·9	− 9·2
Umballa	−14·9	− 3·2	− 9·1
Jacobabad	−13·9	− 3·9	− 8·9
Khushab	−16·8	− 0·7	− 8·8
Sirsa	−10·5	− 6·9	− 8·7
Sambhar	− 6·8	−10·3	− 8·6
Bhavnagar-Para	− 3·2	−13·8	− 8·5
Surat	− 9·1	− 7·6	− 8·4

On the 16th the barometer began to fall in Asiatic Turkey and on the 17th, 18th and 19th, a shallow de-

pression occasioning light rain and gales of wind passed through Western and Eastern Persia and Baluchistan and entered Lower Sind on the 20th.

January 20th.—The depression, which had been traced through Persia and Southern Baluchistan, had entered Lower Sind, etc., where the barometer had fallen rapidly. The barometer had also fallen rapidly in the North Punjab and Kashmir, and a secondary depression was apparently developing in that region. The following gives 8 A.M. data for North-Western India for this day:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches.	
Cherat	...	—·126	+·037	N	25	10	0·43	Drizzling.
Murree	...	—·100	+·032	SE	18	?	0·25	Snowing.
Srinagar	...	—·158	+·026	Calm	4	10	...	
Simla	...	—·006	+·093	S	2	10	...	
Chakrata	...	+·091	+·110	NNW	8	10	...	
Mussoorie	...	—·006	+·106	SE	...	10	...	Moderate wind.
Ranikhet	...	—·019	+·113	NE	1	10	...	
Peshawar	30·229	—·153	+·069	Calm	2	10	0·20	Showery.
Rawalpindi	·237	—·089	+·128	Calm	4	?	0·10	Drizzling.
Sialkot	·203	—·036	+·136	SW	0	8	...	
Khushab	·215	—·065	+·119	Calm	6	9	0·04	Showery.
Dera Ismail Khan.	·204	—·091	+·102	Calm	1	6	0·11	
Mooltan	·205	—·088	+·109	NNW	1	10	0·02	
Lahore	·162	—·096	+·085?	Calm	1	10	...	
Montgomery	·191	—·082	+·107	WNW	3	10	...	
Ludhiana	·205	—·015	+·132	Calm	7	10	...	Drizzling.
Umballa	·192	—·047	+·143	Calm	0	10	...	
Delhi	·199	—·024	+·123	WNW	2	10	...	
Sirsa	·174	—·090	+·093	NE	1	9	...	
Quetta	...	—·086	+·012	S SW	7	10	0·75	Snowing.
Hyderabad (Sind.)	·148	—·111	+·095	NNW	10	10	...	Duststorm.
Jacobabad	·217	—·096	+·161	NW	6	10	0·08	Nor' wester with rain.
Kurrachee	·110	—·132	+·063	ENE	12	9	...	
Bikaner	·176	—·091	+·075	ENE	3	8	...	
Ajmer	·226	—·067	+·094	Calm	1	6	...	
Jaipur	·196	—·071	+·091	NE	2	10	...	
Sambhar	·215	—·065	+·113	NNE	3	10	...	
Deesa	·076	—·125	+·031	NE	12	8	...	Gale.
Neemuch	·197	—·062	+·092	EN	7	2	...	

January 21st.—The depression, noticed in Lower Sind had moved eastward and lay over the east of Rajputana, while there had been little development in the disturbance over the North Punjab. The following gives 8 A.M. data for this day:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches.	
Quetta	...	+·062	+·060	Calm	2	9	0·20	Frosty.
Cherat	...	—·080	—·041	SSE	8	10	0·60	Drizzling.
Murree	...	—·041	—·004	Calm	8	9	1·12	Snowstorm.
Srinagar	...	—·168	—·141	Calm	1	10	0·50	
Simla	...	—·097	—·001	Var.	8	10	0·41	Snowstorm.
Chakrata	...	—·054	+·057	N	12	10	0·73	Snowing.
Mussoorie	...	—·048	+·055	ESE	...	10	0·30	Drizzling.
Ranikhet	...	—·014	+·101	E	3	10	0·07	
Ludhiana	30·082	—·123	+·018	Calm	2	0	0·09	
Umballa	·047	—·145	+·007	E	1	8	0·01	Showery.
Delhi	·051	—·148	—·010	E	1	10	...	
Sirsa	·071	—·103	+·011	NE	3	9	...	
Roorkee	·066	—·115	+·026	Calm	2	10	...	
Meerut	·075	—·119	+·022	Calm	1	10	...	
Agra	·079	—·116	+·017	NE	4	10	0·36	
Jhansi	·050	—·143	—·022	NE	4	8	0·05	
Bikaner	·095	—·081	+·007	N	7	9	0·10	
Jaipur	·036	—·160	—·026	NE	6	10	...	
Ajmer	·071	—·155	—·022	Calm	2	8	...	
Sambhar	·051	—·164	—·005	Calm	7	10	...	
Kotah	...	—·147	...	Calm	2	6	...	
Neemuch	·043	—·154	—·022	Calm	7	3	...	
Nowgong	·037	—·143	—·032	NNE	1	10	...	
Saugor	·034	—·137	—·013	SE	7	8	0·03	

The above shows that the barometer had fallen rapidly over a considerable part of North-Western India, while it had risen briskly at Quetta. Pressure was normal in the depression area and above the normal elsewhere. The winds were light and irregular.

January 22nd.—The depression, noticed over East Rajputana on the preceding day, had advanced into the Central Provinces, while the depression in the Punjab had

suddenly developed. The following gives 8 A.M. data fo the depression areas:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Jubbulpore	29·963	—·054	—·079	SE	3	8	0·55	Distant lightning.
Nowgong	30·010	—·027	—·057	E	7	10	0·03	
Sutna	·005	—·032	—·056	E	8	0	0·14	Showery.
Saugor	·013	—·021	—·046	W	8	10	...	Foggy.
Hoshangabad.	·003	—·024	—·030	SW	1	8	...	
Raipur	·002	—·079	—·014	Calm	1	4	...	
Chanda	·012	—·035	—·028	W	1	5	...	
Pachmarhi	...	—·053	—·022	Calm	8	8	...	
Nagpur	29·988	—·061	—·036	WNW	8	8	...	
Seoni	·997	—·022	—·023	S	1	4	...	
Amraoti	30·003	—·031	—·018	SSW	9	7	...	
Peshawar	·041	—·137	—·106	Calm	1	8	0·06	Showery.
Rawalpindi	·007	—·160	—·067	NNE	1	9	0·02	Showery.
Khushab	·019	—·120	—·075	SSW	2	6	...	
Lahore	29·988	—·103	—·069	SSE	1	10	...	
Sialkot	·983	—·165	—·065	Calm	1	7	0·08	
Ludhiana	·984	—·098	—·062	S	2	10	0·47	Drizzling.
Montgomery	·015	—·103	—·045	NNW	4	4	...	
Murree	...	—·070	—·065	N	2	10	0·35	Snowstorm.
Srinagar	...	—·138	—·274	Calm	1	10	1·35	
Simla	...	—·096	—·085	Var.	12	8	0·39	Snowstorm.
Chakrata	...	—·064	0	N	8	10	0·67	Snowstorm.
Mussoorie	...	—·086	—·029	SSE	...	10	0·55	Gentle wind.
Ranikhet	...	—·084	+·022	S	1	2	0·57	

The above shows that pressure was in moderate defect over the Central Provinces and in considerable defect in the North Punjab, but in neither case were the storms well defined.

January 23rd.—The depression over the Central Provinces had deepened slightly, while that over the North Punjab had partially filled up. The following gives 8 A.M. data for the depression areas:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Jubbulpore	29·895	—·068	—·139	Calm	3	9		
Pachmarhi	...	—·096	—·113	Calm	3	5	...	
Hoshangabad.	29·943	—·060	—·088	NE	1	4	...	
Saugor	·940	—·073	—·105	E	7	5	0·21	Thunderstorm.
Seoni	·900	—·097	—·106	SSE	4	6	...	
Nagpur	·890	—·098	—·116	SSW	7	4	...	
Chanda	·920	—·092	—·114	SE	6	2	...	
Nowgong	·951	—·059	—·108	N	3	10	0·42	Distant lightning.
Sutna	·932	—·073	—·113	N	5	10	0·39	Showery.
Sialkot	30·018	+·035	—·032	NNE	1	0	...	
Lahore	·013	+·025	—·049	Calm	2	0	...	
Ludhiana	29·994	+ 010	—·071	Calm	1	4	0·08	Showery.
Umballa	·977	—·038	—·073	Calm	2	6	0·30	Showery.
Delhi	·989	—·024	—·067	Calm	2	4	0·04	
Roorkee	·962	—·054	—·072	Calm	2	9	0·44	
Meerut	·977	—·046	—·066	Calm	1	10	0·03	
Bareilly	·956	—·093	—·070	SE	2	10	0·04	Showery.
Simla	...	—·046	—·132	S	15	10	0·51	Snowstorm.
Chakrata	...	—·088	—·081	N	11	10	2·11	Snowing.
Mussoorie	...	—·080	—·103	E	...	10	1·55	Snowing.
Ranikhet	...	—·076	—·049	E	2	3	0·28	

The above shows that the deficiency of pressure in the depression area in the Central Provinces had increased somewhat, but that the depression in the Punjab had partially filled up and lay as a slight residual depression over the Simla and Mussoorie Hills.

January 24th.—During the preceding 24 hours both depressions had advanced eastward. The following gives 8 A.M. data for both depression areas:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"					
Benares	29·983	+·010	—·046	E	7	10	...	
Raipur	30·001	+·088	—·010	SW	1	4	...	
Sambalpur	29·979	+·021	—·045	ESE	4	1	...	

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Hazaribagh	29·993	—·009	—·039	SSE	14	8		
Gaya	30·008	—·001	—·029	NNE	23	5	...	Gale of wind.
Patna	·013	+·013	—·027	ENE	8	8	0·84	Thunder-storm with hail.
Sutna	·017	+·085	—·018	WSW	5	8	0·07	Showery.
Simla	...	—·005	—·116	Calm	9	10	0·23	Snowstorm.
Chakrata	...	—·054	—·129	Calm	9	10	1·00	Snowstorm.
Mussoorie	...	—·040	—·136	ESE	...	10	0·82	Snowstorm.
Ranikhet	...	—·034	—·080	Calm	3	10	0·59	Snowstorm.
Roorkee	·021	+·059	—·021	Calm	3	0	0·08	
Meerut	·034	+·057	—·013	SW	1	0	0·10	
Bareilly	29·988	+·032	—·046	Calm	4	4	1·48	Showery.
Bahraich	·997	0	—·031	S	6	5	0·67	Showery.
Dehra Dun	30·016	+·041	—·049	Calm	2	7	0·52	Showery.
Umballa	·008	+·031	—·036	Calm	1	3	...	

The above shows that the depression from the Punjab had passed along the hills to the submontane districts of the North-Western Provinces, while the depression from the Central Provinces had advanced into West Bengal. Neither storm was distinct nor well defined, both were filling up and both disappeared during the succeeding 24 hours.

The second rainfall period of the month set in with the appearance of these two depressions. Snow commenced in Baluchistan and the North-Western Himalayas and rain in the West Punjab on the 20th. The fall continued and extended to the west of the North-Western Provinces on the 21st, and to Bengal on the 23rd. Rain continued to fall during the 24th, and was very heavy in the east of the North-Western Provinces.

This storm like its predecessor was followed by a well-marked cold wave which extended right across Northern India. The following gives some of the more noteworthy variations of temperature from the normal in Baluchistan and Northern and Central India reported on the 24th :—

Station.	Variation from normal of Maximum temperature, 24th January.	Minimum temperature, 24th January.	Mean temperature, 24th January.
	°	°	°
Quetta	—25·6	—27·5	—26·6
Chaman	—23·3	—16·0	—14·7
Hyderabad (Sind)	—13·4	—16·1	—14·8
Bhuj	—10·7	—14·9	—12·8
Sambhar	— 9·7	—14·9	—12·3
Rajkot	—14·2	— 9·6	—11·9
Jaipur	— 5·9	—17·6	—11·8
Peshawar	—13·1	—10·5	—11·8
Deesa	—12·4	—10·6	—11·5
Mooltan	—11·9	—10·7	—11·3
Kurrachee	— 8·2	—13·7	—11·0
Khushab	—12·2	— 9·7	—11·0
Bhavnagar-Para	— 6·1	—15·7	—10·9
Montgomery	— 7·9	—12·6	—10·3
Neemuch	— 6·7	—11·9	— 9·3
Rawalpindi	— 9·6	— 7·4	— 8·5
Surat	— 9·0	— 7·2	— 8·1

Anti-cyclonic conditions had been established over North-Western India on the 22nd and these conditions lasted until the 27th. A storm apparently developed near Baghdad, on the 23rd and 24th, and thence advanced through Persia and entered Gujarat on the 27th. It subsequently advanced eastward into the Central Provinces giving a few showers on its way, but was never of any consequence. The remainder of the month was fine and quiet.

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* (*Southern Wasiristan*).—The Political Officer has forwarded the following report :—Heavy falls of snow occurred on the 13th, 14th, 15th, 16th, 17th, and again between the 25th and the 31st. The depth of the first falls was about 6 inches on the higher peaks of the Marwattai and Pirghal, and about 4 inches on the Wana Plains. On the 17th the depth of snow on the—

Marwattai . . }
Bosh . . . }
Pirghal . . . } was about 3 feet.
Kotkan . . . }

The heavy fall of snow between the 25th and the 31st gave another 2 or 3 feet on the Marwattai.

Much of the snow melted soon after it fell on the sunny

slopes, but in ravines the snow at the end of the month was about 2 feet deep on the north face of the hills. The snowfall during the month was much heavier than usual.

(2) *Dera Ismail Khan.*—The following report has been received from the Deputy Commissioner :—Snow fell on the 5th, 16th, 17th, 22nd, 23rd and 24th on the higher peaks of the Takht Suleman range. The total depth of snow was 17 feet. Snow also fell on the Shekh Buddin hill (4,500 feet) to a depth of 2 feet—a very unusual occurrence. The snow line was about 5,000 feet, but in some places descended to 4,000 feet.

(3) *Kurram.*—The Civil Surgeon reports that snow fell in the vicinity on the 4th, the 15th to the 17th, the 19th and 20th, the 22nd and the 31st.

On the 4th the snow descended to 1 mile below the station, but melted the same day. The second fall was heavy, the depth of snow at the station (Parachinar) having been 1 foot while the snow descended to Manduri 43 miles below the station. The third fall was also heavy and descended to 12 miles below the station. The two last falls, *viz.*, on the 22nd and 31st, were light and melted quickly.

(3*a*) *Kurram Valley.*—The officer on special duty in the Kurram reports that snow fell between the 15th and 17th, the 19th and 20th, the 22nd and 31st. The snowfall of the 15th was the heaviest during the year and is reported to have extended to Chapri which is only about 3,000 feet above sea-level. The snowfall during the month was heavier than that of 1898, but less than that of 1897.

(4) *Kabul.*—The meteorological observer reports that snow fell in Kabul on the 6th, 17th, 20th, 21st and 31st, giving a total snowfall of seven inches. On the hills surrounding Kabul, the accumulation of snow at the end of the month was about 3 inches while the Paghman Hills were all covered with snow. The snowfall was heavier than in January 1899, the same as in 1898, and lighter than in 1897.

(5) *Khyber.*—The Political Officer reports that snow fell in the Khyber district between the 15th and 17th and between the 18th and 23rd. The depth of the first fall was estimated at between 14 and 16 inches and that of the second fall between three and five inches. The estimated fall on the surrounding hills was :—

On the Lakka Hills	12 feet.
Tor Sappor	9 "
Spin Sáka	9 "
Túro Sar	10½ "

The snowstorm of the 15th—17th January extended in the Pass over an area of about 12 miles from Lundi Khana to Ali Masjid and on the surrounding hills over an area of about 30 miles. The snow fall in January was of an exceptional character.

(6) *Baluchistan, Quetta.*—The Agent to the Governor General telegraphed on the 20th "ten to twelve inches of snow has fallen since yesterday and it is still snowing."

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Murree.*—Snow fell on the Murree Hills on the 5th, 15th, 16th, 17th, 18th, 20th, 21st, 22nd and 23rd January and on the Murree Hills and at Kahuta on the 15th, 16th, 20th, 21st and 22nd. The total on the Murree Hills was 7 feet 7 inches and at Kahuta 5 feet. This was heavier than during the past three years.

(2) *Leh.*—Snow fell in Leh as follows :—

January 5th	½ inch.
" 9th	Slight sprinkle.
" 14-15th	1¼ inches.
" 17-18th	2¼ "
" 21st	2 "
" 24th	⅛ inch.

The accumulated snow at the end of the month in Leh was 4½ inches and in Lower Ladakh about the same amount.

(3) *Killa Drosh.*—Snowfell on the 1st, 5th, 15th and 16th, 18th, 20th, 23rd and 31st. The falls on the 5th, 16th and 20th were heavy. At the middle of the month there was 10 feet of snow on the Lowari Pass.

(4) *Chitral.*—The meteorological observer reports that snow fell on the 10th, the 15th, the 18th, from the 20th to the 24th and on the 31st.

The snowfall on the ground on the 15th and 16th was between 2 and 5 inches, on the 18th the same, on the 20th between 6 and 9 inches, on the 22nd between 1 and 3 inches; on the 23rd between 1 and 3 inches and on the 24th between 1 and 2 inches. All the passes in the district were blocked with snow and the accumulation of snow on the Lowari Pass was 15 feet. The snowfall of the January under review was slightly greater than that of January 1899.

(4*a*) *Hazara.*—The Deputy Commissioner, Hazara, reports as follows :—Heavy snow fell on the higher peaks on the 15th to 17th and the 20th to 22nd January. The storm of the 15th to 17th was very general and the snow accumulation was about 3 feet. The snow was late in beginning and was heavier than of late years, but was about normal in amount.

(5) *Chamba.*—General snow storms occurred between the 14th and 17th and between the 20th and 23rd.

The following were some of the more important totals:—

		Feet.	Inches.
Bhandal Valley	Bhandal, 6,000 feet	3	8
Tesa Range	Thanela	11	9
Main Ravi Valley	Barmaur 8,000 feet	10	1
Outer Range	Kalatop, 8,000 feet	7	11

Snow fell to an unusually low elevation on the 17th and 22nd, more particularly on the latter date when it descended to 1,600 feet. The snowfall this year was late and not very heavy, but has only once before in recent years descended to such a low altitude.

(6) *Simla.*—The Deputy Conservator of Forests, Bashahr Division, Simla district, reports as follows:—Snow fell on the 1st, 2nd, 6th, 14th to 16th, 18th, 21st to 24th, 26th and 28th. The total fall amounted to 4 feet 2 inches. The snowfalls from the 14th to the 28th were general, but the remainder appear to have been local. The following were the depths of snow on the passes at the end of the month:—

Borenda, 15,000 feet	13 feet.
Rupin 15,500 feet	13 "
Harang 13,000 feet	8 "
Shatul 16,000 feet	15 "
Bulder 16,000 feet	17 "
Runang 14,000 feet	12 "

All the passes were closed and traffic and the post stopped on the Hindustan-Thibet road between Sarahan (7,000 feet) and Kilba.

(7) *Kulu.*—The Assistant Commissioner, Kulu, sends the following report:—Snow fell in the Kulu Tahsil on the 5th, 6th, 14th to 18th and 20th to 24th and on the 6th, 14th to 18th, 21st to 25th and 28th in the Plach Tahsil. The falls were very general and the fall on the 15th January at an elevation of 5,200 feet was 6 inches and on the 18th January was 1 foot.

The following shows the reported depth of snow on the higher passes of the sub-divisions at the end of January.

Kulu Tahsil.		*Plach Tahsil.*	
Rotang	23 feet.	Sirikhand	17 feet.
Hamta	9 "	Chul	14 "
Barsai	4 "	Maghin	12 "
Chandar Khani	9 "	Dundku	13 "
Bojadhar	7 "	Tikar	12 "
Lohri Achri	8 "	Nunu	7 "
Bhubhu	10 "	Ramgarh	4 "
Sari	1 foot	Jalori	10 "
Pashtari	3 feet	Raghopur	10 "
Majhang	3 "	Lambri	12 "
		Sakiran	12 "
		Gargarasan	14 "
		Supakun	13 "
		Basleo	11 "
		Plach	12 "
		Tirath	13 "

The snowfall was heavier during January 1900 than in the same month of previous years.

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

(1) *Garhwal.*—The Deputy Commissioner sends in the following report:—Snow fell more or less intermittently throughout the latter half of the month, the more considerable falls being on the 22nd and 23rd when the snow-line descended to about 5,000 feet. The total fall was between 6 and 12 inches.

As compared with previous years the snowfall during January was heavier and more frequent than usual. The storms were accompanied with thunder and hail.

(2) *Almora.*—The following snowfall report for this district has been received.

Malla Danpur.—Snow fell as follows:—

5th January 1900	1 foot.
14th and 15th " "	2 feet.
17th and 18th " "	2½ "
21st and 24th " "	4½ "
28th " "	1½ "
29th " "	2 "
TOTAL	13½ feet.

This was the depth on the well-known passes of Pindari, Kaphini and Kantela:—

Malla Johar.—Snow fell as follows:—

5th January 1900	2 feet.
14th " "	4 "
15th " "	6 "
21st " "	8 "
27th " "	6½ "
29th " "	4 "
TOTAL	30½ feet.

This was the depth of snow on the well-known peak of Utámdhurá. On Ralam Dhurá snow fell to a depth of 15 feet, on Milam of 6 feet, and on Bagdwar of 3 feet.

Mallas, Byans, Chandans and Darmá.—Snow fell as follows:—

14th and 15th January 1900	1 foot.
17th to 19th " "	3 feet.
21st to 23rd " "	3½ "
26th to 28th " "	1½ "
31st " "	½ foot.
TOTAL	9½ feet.

The snowfall was about equal to that of last year.

Summary of Snowfall information.—The data quoted above indicate that the snowfall of the winter 1899-1900 began later than usual. There were slight falls among the mountain ranges about the 5th and 6th, but the first heavy and general fall commenced on the 14th and lasted till the 17th.

This fall was both heavy and general and the snowline which up to that date had been high descended very

quickly and in some places snow was experienced as low as 3,000 feet. Light falls of snow continued between the 17th and the 21st and on the 22nd, the second heavy fall of the season occurred. This fall was also very general and in the Chamba district snow on this occasion descended as low as 1,600 feet.

The snowfall during the winter has been generally normal or slightly heavier than the normal, and has been considerably heavier than in the last few open winters.

Summary of Special Storm Reports.

Occasionally thunderstorms and hail storms occur in the cold weather. These storms are, however, rare, and the following gives a statement of the chief local storms of the month of January 1900 of which reports were received.

13th.—At Khandwa a thunderstorm occurred at 9 P.M., accompanied with strong winds, lightning and rain.

14th.—At Allahabad thunder began at 8 P.M. in the west and south-west, rain following at 8-15 P.M. The storm lasted till 11 P.M. and about ¾ inch of rain fell.

21st.—Slight storm at Allahabad. Rain commenced at 9-30 A.M. Distant thunder and lightning at night.

23rd.—Thunderstorm at Allahabad. Rain commenced at 6 A.M. and was followed by severe hail. Rain lasted irregularly throughout the whole day with thunder and lightning.

30th.—Thunderstorm at Allahabad at 6-50 P.M. The storm lasted till 10 P.M. and 0·15 inch of rain fell.

31st.—Thunderstorm at Allahabad from 8 A.M. to 9 A.M. Light rain accompanied the storm.

The following records of hailstorms have been received:—

The Political agent, Bhopal, reports that when encamped at Sherwasa in the Kurwai State on the 14th January, a hailstorm passed over the village. The stones which fell were from 1″ to 1½″ in diameter and the course of the storm was north by west. The storm did some damage. On the same date a hailstorm passed over the Maksudangarh State, but the stones were small and did no damage.

Hailstones also fell in Pathari State on the 23rd.

Mr. N. R. Chambers, writing from Allahabad about the storm on the 23rd, says, "that at about 9 A.M. the lamps had to be lighted as the weather was so dark. Soon after 9 A.M. the hailstorm commenced with a few scattered large lumps of hail. The first stones measured more or less 1¾″ to 2″ cube and were irregular in shape, more cubical than spherical and one measured 3″ × 2″ × 2″. This sparce shower of large hail lasted about 3 minutes after which a pelting shower of hail of even greater size than the ordinary hailstones took place. From further enquiries Mr. Chambers concludes that the sparce shower of large sized hail was confined to the banks of the Jumna river from the Fort Junction to a mile and a quarter up the river on the Allahabad side. The hailstones, it is believed, weighed from 1 to 1½ lbs. each."

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

Arabian Sea.—Ordinary winds of the north-east monsoon prevailed steadily throughout the month over the Arabian Sea, except in the extreme north where abnormal southerly winds were experienced on the 5th, 14th, 15th, 26th and 27th, due to the passage eastwards of cold weather depressions along the southern edge of the plateau of Baluchistan. Winds were more or less considerably above their normal intensity on no less than 22 days during the month. The variations of strength from day to day were, however, large—the mean daily force over the whole area ranging between 2·8 and 4·6. On the mean of the whole month the strength of the air movement for the whole area was 3·7 as compared with 3·3, its normal intensity in January. Conditions were much less disturbed in the Persian Gulf than usual, and winds from between north and west obtained in that area on most days. The air movement was not characterized by any large abnormal features in the Gulf of Aden. In the south of the Red Sea very strong south to south-east winds, forces 5 to 9 with a high sea, were experienced on the 1st and 23rd to 25th due probably to conditions in Abyssinia.

Bay of Bengal.— Winds were somewhat unsteady in the north of the Bay, being under the influence of the varying pressure conditions over the neighbouring land area. Over the remainder of the Bay, ordinary winds of the north-east monsoon obtained, except in the south-east, where they were more northerly than usual, due to the abnormal position of the area of minimum pressure

which, as was the case during the preceding two months, lay much further east than usual. The air movement was slightly stronger than usual on the 6th, 11th, 12th, 18th, 19th, 21st, 25th, 29th, and 31st and more or less below the normal of the month during the remainder of the month. Winds were strongest on the 29th (when they averaged 3·8 in force) and feeblest on the 9th (2·1). The mean force for the whole month was 2·9, while the normal for the period is 3·0. Weather was more or less disturbed in the neighbourhood of Ceylon on the 6th, 10th, 13th and 25th, due to intensified north-east monsoon winds, but was fine and quiet over the remainder of the Bay.

Equatorial Belt.— So far as can be judged conditions were approximately normal in the western half of the Equatorial Belt.

Temperature of the Air.

The mean temperature data are given in Table I and Table II under the headings "Temperature of the air." In Table I they are based upon observations of the dry bulb thermometers and the maximum and minimum thermometers recorded at 8 A.M. The variations 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 sixteen 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 1893, and are hence fairly comparable with each other. The mean daily temperature in this table is taken as the mean of the maximum and minimum. It differs from the true mean of the day by small amounts which vary from month to month. But the variations of the mean daily temperature from the normal, as determined by the use of the definition, agree in almost all cases closely with the variations of the true daily means derived from the readings at 16 hours and of the maximum and minimum thermometers, and the employment of corrections deduced from the various series of hourly observations which have been taken at many stations in different parts of India.

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 are given means of the 10 and 16 hours' temperatures of the month in addition to maximum and minimum temperature data. The mean temperature of the month (*i.e.*, the arithmetical mean of the mean temperature of each day of the month) is also shown. The mean temperature of the day is obtained by the use of the formula:—

$$\frac{\text{Maximum} + 16\text{ hours} + 2\text{ Minimum.}}{4}$$

and by applying a constant correction for each month obtained from the hourly observations at the same, or a neighbouring station, except in the case of Nagpur (Sanitary Commissioner's office), Udaipur, Jamnagar, Hyderabad (Deccan) Periyakulam, Mysore, Hassan, Chitaldroog, Waltair, Quetta, Muktesar, Srinagar, Katmandu, Darjeeling, Bangalore, Mount Abu, Wellington, Kodaikanal, Perim, Zanzibar and Port Victoria (Seychelles) (for all of which crude means are given), and Madras. For Madras the means are those given in the registers sent by that observatory.

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 variations of the 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 means have been derived from all the available trustworthy temperature data for each station, and hence for very varying numbers of years, ranging from 50 years in the case of Bombay to 3 years in the case of Port Victoria. It should be noted that the day or 24 hours period in Table II terminates at 4 P.M. (and not at 8 A.M.), and hence the monthly means are for monthly periods ending at 4 P.M. 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 variations 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 variations of temperature are indicated by lines, the lines being drawn for differences of 2° of variation. 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 variation, separating areas of excess 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 increased temperature. The variations of the temperature of the month from the normal at the hill stations (*i.e.*, stations, the elevations of which exceed 5,000 feet) are given in figures with a positive or negative sign to indicate excess or defect.

Tables of normal mean maximum, minimum and mean daily temperature for each month and for the whole year were given in the annual summary for 1891. Similar tables were given in the annual review of 1894, based on the data for sixteen years, 18·8 to 1893.

The disturbed weather and extensive snowfall of the second half of the month exercised an important influence on the weather over Northern and North-Western India and the countries to the westward over the whole of which area the température was lower than usual.

The mean maximum temperature of the month exhibited large contrasts. Over nearly the whole of Northern India, including the Assam Valley, North Bengal, Bihar, the North-Western Provinces, the Punjab, Rajputana and North Bombay, the day temperatures were below the normal. The deficiency was considerable in two areas. The first included parts of the North-Western Provinces and of Central India where the rainfall was heavy, and the second included the West and South Punjab, Western Rajputana, Sind and Gujarat, an area which was exposed to the exceptionally cold winds from Baluchistan. The following gives comparative data for these two areas:—

Area.	Station.	Mean maximum temperature.		
		Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
		°	°	°
1st Area	Nowgong	70·7	75·3	−4·6
	Gorakhpur	70·3	73·2	−2·9
	Jhansi	73·3	76·0	−2·7
	Sutna	72·3	74·6	−2·3
	Benares	72·4	74·4	−2·0
2nd Area	Hyderabad (Sind)	72·0	76·5	−4·5
	Bikaner	68·1	71·8	−3·7
	Rajkot	80·9	84·2	−3·3
	Bhuj	76·9	80·1	−3·2
	D. I. Khan	66·4	69·6	−3·2
	Kurrachee	75·2	78·3	−3·1
	Ajmer	71·0	74·0	−3·0
	Jacobabad	70·7	73·3	−2·6
	Peshawar	61·3	63·9	−2·6
	Delhi	68·5	71·0	−2·5
	Deesa	80·2	82·7	−2·5
	Mooltán	67·5	69·8	−2·3
	Sirsa	68·7	70·9	−2·2
	Ludhiana	65·5	67·6	−2·1

The deficiency was more marked in Baluchistan than in India. The following gives data for the stations in that area:—

Province.	Station.	Mean maximum temperature.		
		Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
		°	°	°
Baluchistan	Quetta	43·0	51·5	−8·5
	Chaman	46·4	53·0	−6.6

The day temperature was also below the normal along the West Coast of the Peninsula. The deficiency was smaller than over Northern India, but was large at Goa and exceeded 2° at the stations for which comparative data are given below:—

Station.	Mean maximum temperature.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Goa	81·8	87·2	−5·4
Ratnagiri	83·8	87·4	−3·6
Mormugao	83·7	86·0	−2·3

In all other parts of the Indian region the mean day temperature was more or less above the normal. The excess was generally small over Burma and the east and south of the Peninsula, but was moderate in Cachar and Lower and South-West Bengal and was considerable to

very large over all the inland districts of the Peninsula and of India. The following gives comparative data for the 16 divisions in which the excess was more than 2°.

PROVINCE.	MEAN MAXIMUM TEMPERATURE.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Assam Surma	79·4	77·2	+2·2
Deltaic Bengal	80·1	77·6	+2·5
Orissa	82·8	80·4	+2·4
Madras, South Central	89·5	87·4	+2·1
Coorg	81·0	76·4	+4·6
Mysore	86·5	82·3	+4·2
Bombay Deccan	89·0	85·2	+3·8
Khandesh	87·8	84·6	+3·2
Berar	90·3	84·3	+6·0
Central Provinces (West)	85·8	82·2	+3·6
Central Provinces (Central)	82·4	79·4	+3·0
Central Provinces (East)	86·4	81·5	+4·9
East Coast, North	83·3	80·9	+2·4
Hyderabad, South	90·0	85·3	+4·7
Madras, Central	92·4	87·8	+4·6
East Coast, Central	87·5	84·6	+2·9

The above shows that the greatest excess was shown over Berar, the Central Provinces and the Deccan, where the following stations exhibited variations of +5° or more:—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Akola	90·8	84·4	+6·4
Nagpur	89·1	83·0	+6·1
Chanda	91·0	84·9	+6·1
Cuddapah	93·3	87·6	+5·7
Amraoti	89·8	84·2	+5·6
Secunderabad	89·6	84·1	+5·5
Raipur	86·4	81·0	+5·4
Bangalore	84·5	79·3	+5·2
Hyderabad, Deccan	89·2	84·1	+5·1

The hill stations exhibited the same general conditions as the neighbouring plains stations. Thus there was a considerable deficiency at the hill stations in the North-West Himalayas and at Mount Abu, while at the Central and Southern Hill stations the excess of temperature was as marked as on the neighbouring plains. The following gives examples:—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Leh	26·1	33·7	−7·6
Murree	42·8	47·9	−5·1
Chakrata	46·7	50·6	−3·9
Simla	43·9	46·4	−2·5
Ranikhet	51·7	54·2	−2·5
Cherat	46·7	48·7	−2·0
Mount Abu	63·6	67·0	−3·4
Pachmarhi	74·3	70·9	+3·4
Wellington	71·3	66·5	+4·8

Some of the day temperatures recorded during the month were very remarkable. Thus the highest day temperature recorded at Chanda during the month was 95°·7, the highest previously recorded being 93°·8, the highest reading at Nagpur was 95°·1 or 0°·9 higher than the highest previously on record, and at Akola 95°·9 or 0°·4 higher.

The mean minimum temperature of the month exhibited the same general variations as the mean maximum temperature. There was a marked deficiency over Baluchistan, the Punjab, Rajputana, North Bombay and the West Coast, but the area of deficiency did not, as in the case of the maximum temperature, extend eastward down the Gangetic Plain into North-East India. The deficiency in North-West India was, however, nearly as great in the case of the night as in the case of the day temperature. The following gives comparative data for the stations at which the variation exceeded—2°:—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Chaman	29·3	35·4	−6·1
Quetta	24·8	29·3	−4·5
Montgomery	38·5	42·9	−4·4
Hyderabad (Sind)	47·2	51·2	−4·0
Kurrachee	52·1	55·3	−3·2
Bhuj	51·7	54·8	−3·1
Khushab	39·4	42·2	−2·8
Dera Ismail Khan	38·9	41·3	−2·4
Bikaner	45·8	47·9	−2·1

Over the whole of the remainder of the Indian region the mean minimum temperature exceeded the normal. The excess was greater, as was the case with the day temperatures, at the inland stations across the head of the Peninsula than in other parts of the country, but it was also considerable in parts of Lower Burma and of Tenasserim. The excess was 4° or upward in amount in the following 7 divisions:—

Province.	Mean minimum temperature.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Orissa	64·9	60·7	+4·2
Chota Nagpur	54·7	50·7	+4·0
North-Western Provinces (East)	52·2	47·9	+4·3
Bihar	60·4	55·3	+5·1
Central Provinces (Central)	56·5	51·4	+5·1
Do. (East)	61·8	55·1	+6·7
Hyderabad (South)	64·8	60·2	+4·6

The excess was absolutely greatest over the east and south of the Central Provinces and exceeded 6° at the following stations:—

Station.	Mean minimum temperature.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Chanda	62·4	54·6	+7·8
Sambalpur	62·2	55·0	+7·2
Nagpur	61·8	55·4	+6·4
Raipur	61·3	55·2	+6·1

The mean night temperature, relatively to the normal, was lower at the level of the hills than at the level of the plains stations, thus in the North-West Himalayan region the deficiency was greater than on the plains of the Punjab; in Rajputana the temperature was in defect at Mount Abu, while on the plains it was in excess, while in the Central Provinces and Southern India the excess was less on the hills than on the plains. The following gives comparative data:—

Province.	Station.	Mean minimum temperature.		
		Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
		°	°	°
Upper India Hill Stations.	Murree	31·7	35·4	—3·7
	Srinagar	23·6	26·7	—3·1
	Simla	33·9	36·5	—2·6
	Leh	7·4	9·6	—2·2
	Chakrata	33·8	36·0	—2·2
	Cherat	36·7	37·9	—1·2
	Ranikhet	39·2	39·7	—0·5
Rajputana	Mount Abu	49·7	51·1	—1·4
Central Provinces.	Pachmarhi	51·3	47·4	+3·9
South India	Wellington	45·7	45·5	+0·2

The lowest minimum temperatures of the month were generally recorded between the 22nd and the 24th (when a very heavy and low fall of snow occurred on the hills) in Persia, Baluchistan and North-West India and on the 25th in the Central Provinces. The follwing gives the more noteworthy absolute minimum temperatures recorded during the month on the hills and plains of Persia, Baluchistan, Kashmir, North-West India, the Central Provinces and Berar. Elsewhere the minima were unimportant. The lowest readings previously recorded are added for comparison:—

Station.	Lowest minimum temperature recorded in January 1900.	Date on which recorded.	Lowest minimum temperature recorded in January previous to 1900.	Year in which recorded.
	°			
Kalat	0	22nd	—6·4	1897
Chaman	18·1	"	15·1	1897
Bikaner	36·1	23rd	35·0	1878
Jask	45·3	"	41·8	1897
Quetta	3·3	24th	9·3	1897
Murree	21·5	23rd and 24th	18·0	1897
Pachpadra	26·6	24th	30·0	1895
Cherat	27·0	18th and 24th	27·5	1897
Chakrata	27·3	24th and 25th	18·7	1876
Peshawar	30·9	24th	28·8	1878 and 1889
Jaipur	33·0	"	35·0	1888
Khushab	33·0	"	29·1	1892

STATION.	Lowest minimum temperature recorded in January 1900.	Date on which recorded.	Lowest minimum temperature recorded in January 1900.	Year in which recorded.
	°		°	
Sambhar	33·5	24th	33·0	1899
Ajmer	33·9	,,	31·0	1867
Mooltan	34·0	,,	29·0	1878
Jacobabad	35·0	,,	30·3	1885
Hyderabad (Sind)	36·0	,,	37·5	1897
Deesa	41·0	,,	37·0	1885
Montgomery	31·0	25th	31·5	1895
Khandwa	38·2	,,	35·9	1878
Hoshangabad	41·2	,,	40·0	1875
Ahmedabad	42·2	,,	44·2	1897
Jubbulpore	42·6	,,	40·3	1878
Akola	46·2	,,	39·2	1880
Nagpur	52·2	,,	43·2	1878
Amraoti	52·9	,,	44·0	1883
Dera Ismail Khan	34·0	13th and 26th	26·0	1876

The above shows that the minima in most cases were not so low as those previously recorded.

The mean temperature of the month was in defect over Baluchistan, the greater part of North-West India and along the West Coast of the Peninsula. The deficiency was more than 2° at the following stations :—

PROVINCE.	STATION.	MEAN DAILY TEMPERATURE. Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
		°	°	°
BALUCHISTAN	Quetta	33·9	40·4	—6·5
	Chaman	37·9	44·3	—6·4
NORTH-WEST INDIA.	Hyderabad (Sind)	59·6	63·9	—4·3
	Kurrachee	63·6	66·8	—3·2
	Bhuj	64·3	67·5	—3·2
	Bikaner	57·0	59·9	—2·9
	Dera Ismail Khan	52·7	55·5	—2·8
	Montgomery	52·6	55·4	—2·8
	Rajkot	65·1	67·8	—2·7
	Jacobabad	56·0	58·3	—2·3
	Mooltan	54·2	56·3	—2·1
WEST COAST	Goa	74·7	77·7	—3·0

The mean temperature was normal or in slight excess over the Gangetic Plain, North Bengal, the Assam Valley, part of Burma, and part of the south of the Peninsula. Over the whole of the remainder of India the mean temperature was in excess. This excess was greatest across the head of the Peninsula, but was also considerable at some places in the Madras Deccan. The following gives comparative data for stations at which the excess equalled 4° or more :—

STATION.	MEAN DAILY TEMPERATURE. Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°	°
Chanda	76·7	69·7	+7·0
Nagpur	75·5	69·2	+6·3
Raipur	73·9	68·1	+5·8
Sambalpur	74·2	68·4	+5·8
Akola	74·5	68·8	+5·7
Amraoti	76·2	70·7	+5·5
Secunderabad	76·4	71·0	+5·4
Hyderabad (Deccan)	76·2	71·0	+5·2
Seoni	69·6	65·2	+4·4
Sholapur	76·8	72·5	+4·3
Cuddapah	80·2	75·9	+4·3
Bellary	78·0	74·0	+4·0

The deficiency in the mean temperature was more marked at the level of the hills in North-West India than at the level of the plains. It was apparently very marked in Baluchistan, as is shown by the following comparative data for that area :—

PROVINCE.	STATION.	MEAN DAILY TEMPERATURE. Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
		°	°	°
BALUCHISTAN	Quetta	33·9	40·4	—6·5
	Chaman	37·9	44·3	—6·4

The deficiency was also considerable at Murree and Leh, but was only slight in the Kashmir Valley. This is shown by the following data :—

Station.	Mean daily temperature.		
	Actual, January 1900.	Normal, January	Variation of actual from normal, January 1900.
	°	°	°
Leh	16·8	21·7	—4·9
Murree	37·3	41·7	—4·4
Srinagar	31·8	33·1	—1·3

The following gives a brief summary of the most important variations of the mean temperature conditions of the month from the normal :—

(1) The day and night temperatures and hence also the mean temperature of the month were in large defect in Baluchistan and in moderate defect in Persia.

(2) The mean maximum and the mean minimum temperatures and consequently also the mean temperatures were in slight to considerable defect over the greater part of North-Western India and along the West Coast.

(3) The day temperature was below, and the night temperature above, the normal in the Gangetic Plain and North Bengal, where also the mean temperature of the month was normal or in slight excess.

(4) Over the remainder of India both the day and night temperatures and consequently the mean temperatures were above the normal.

(5) Both the day and night temperatures were more than 6° above the normal at the inland stations across the head of the Peninsula.

The following table gives temperature data of the month for the 54 meteorological divisions of the Empire :—

Province.	Division.	Actual temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	89·1	70·8	80·0	18·4	28·9	+1·2	+3·6	—2·4
	Lower Burma (Deltaic)	87·7	67·8	77·8	19·9	29·9	+1·7	+2·8	—1·1
	Central do.	85·8	58·3	71·9	27·2	37·6	+0·2	+0·7	—0·5
	Upper do.	82·0	56·0	69·0	26·0	38·9	+0·3	+3·1	—2·8
Bengal and Assam	Eastern Bengal	79·0	56·6	67·8	22·4	36·3	+1·9	+3·0	—1·1
	Assam (Surma)	79·4	54·8	67·1	24·6	35·9	+2·2	+2·5	—0·3
	Do. (Brahmaputra)	71·9	53·1	62·5	18·8	29·1	+0·2	+1·4	—1·2
	Deltaic Bengal	80·1	57·7	68·9	22·4	36·9	+2·5	+3·1	—0·6
	Central do.	77·7	55·4	66·6	22·3	37·3	+1·4	+2·9	—1·5
	North do.	74·2	52·8	63·5	21·4	33·9	—0·1	+1·9	—2·0
	Bengal Hills	46·4	30·2	38·3	16·1	28·5	+1·1	0	+1·1
	Orissa	82·8	64·9	73·9	17·9	26·0	+2·4	+4·2	—1·8
	Chota Nagpur	77·1	54·7	65·9	22·4	37·0	+1·3	+4·0	—2·7
	Bihar (South)	72·9	53·3	63·1	19·6	36·4	—1·3	+3·5	—4·8
	Do. (North)	71·7	52·1	61·9	19·6	34·4	—1·9	+2·7	—4·6
North-Western Provinces and Oudh.	North-Western Provinces (East)	72·5	52·2	62·3	20·3	43·0	—1·8	+4·3	—6·1
	Oudh (South)	72·4	49·3	60·9	23·1	44·7	—1·4	+2·9	—4·3
	North-Western Provinces (Central)	72·2	50·9	61·6	21·3	41·7	—1·6	+2·6	—4·2
	Do. do. (West)	71·0	48·8	59·9	22·2	39·7	—0·9	+2·2	—3·1
	Do. do. (Submontane, East)	70·3	51·7	61·0	18·6	34·2	—2·9	+2·8	—5·7
	Do. do. (Submontane, West)	68·3	46·7	57·5	21·5	39·4	—0·2	+1·7	—1·9
	Do. do. (Hills)	48·1	35·9	42·0	12·2	31·7	—3·2	—1·4	—1·8
Punjab	Punjab (South-East)	68·5	47·9	58·2	20·6	36·0	—2·5	—0·1	—2·4
	Do. (South)	67·5	43·0	55·3	24·5	41·8	—2·2	—1·3	—0·9
	Do. (Central)	67·0	41·4	54·2	25·6	41·2	—0·4	0	—0·4
	Do. (Submontane)	66·0	43·8	54·9	22·2	41·0	—1·4	+0·2	—1·6
	Do. (Hills)	39·0	22·6	30·8	16·4	37·9	—3·3	—2·6	—0·7
	Do. (North)	61·5	38·5	50·0	23·0	39·8	—2·2	—0·2	—2·0
	Do. (West)	66·8	39·4	53·1	27·4	42·1	—1·9	—2·9	+1·0

Province.	Division.	Actual temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bombay and Malabar Coast Districts (Madras).	Malabar	86·9	71·4	79·2	15·5	25·0	+0·1	+1·2	−1·1
	Madras (South Central)	89·5	65·8	77·7	23·7	36·6	+2·1	+2·1	0
	Coorg	81·0	59·3	70·2	21·7	30·3	+4·6	+3·4	+1·2
	Mysore	86·5	60·1	73·3	26·4	39·2	+4·2	+2·3	+1·9
	Konkan	83·0	67·0	75·1	16·0	26·5	−2·8	−0·4	−2·4
	Bombay Deccan	89·0	59·5	74·2	29·5	40·4	+3·8	+2·1	+1·7
	Hyderabad (North)	88·7	62·1	75·5	26·7	36·9	...	...	...
	Khandesh	87·8	53·3	70·5	34·5	48·6	+3·2	+1·8	+1·4
Central Provinces and Berar.	Berar	90·3	60·4	75·4	29·9	45·5	+6·0	+5·1	+0·9
	Central Provinces (West)	85·8	56·9	71·4	28·9	49·1	+3·6	+3·7	−0·1
	Do. (Central)	82·4	56·5	69·5	26·0	43·1	+3·0	+5·1	−2·1
	Do. (East)	86·4	61·8	74·1	24·6	36·5	+4·9	+6·7	−1·8
Bombay (North)	Gujarat	85·1	56·2	70·7	28·9	48·0	−0·2	−0·9	+0·7
	Kathiawar & Cutch	79·9	52·8	66·3	27·0	45·5	−1·6	−3·0	+1·4
	Sind	72·6	46·8	59·7	25·8	44·6	−3·4	−3·0	−0·4
	Baluchistan Hills	47·3	24·2	36·0	23·1	54·7	−7·6	−5·3	−2·3
Rajputana and Central India.	Central India (East)	73·0	50·3	61·7	22·7	46·1	−2·8	+2·6	−5·4
	Rajputana (East), Central India (West)	74·2	48·7	61·5	25·5	45·7	−2·1	−0·3	−1·8
	Do. (West)	71·7	45·8	58·8	25·9	48·3	−3·7	−2·1	−1·6
Madras	East Coast (North)	83·3	68·1	75·7	15·1	26·1	+2·4	+3·5	−1·1
	Hyderabad (South)	90·0	64·8	77·4	25·3	35·8	+4·7	+4·6	+0·1
	Madras (Central)	92·4	64·6	78·5	27·8	41·1	+4·6	+3·4	+1·2
	East Coast (Central)	87·5	67·5	77·5	20·0	31·9	+2·9	+1·5	+1·4
	Do. (South)	85·6	68·6	77·1	17·0	26·6	+1·8	+1·3	+0·3
	Madras (South)	88·1	69·6	78·9	18·5	28·5	+1·8	+0·9	+0·9

The following gives a brief sketch of the more important changes in the temperature conditions of January 1900.

During the first half of the month the weather in North-West India, the North-West Himalayas and the countries to the westward of India, was comparatively quiet and the snowfall on the hills was generally small, but, after the 14th, the weather became disturbed and the snowfall on the hills both heavy and extensive, while the temperature changes over India immediately became large and important.

The temperature conditions at the commencement of the month showed the effect of the previous long drought. The mean temperature was lower than usual over part of Lower Burma and over the southern half of the Peninsula, but was slightly to very largely above the normal over the remainder of India. In Baluchistan the mean temperature had fallen fast and was below the normal average.

The following gives comparative temperature data for the 24 hours ending at 8 A.M. on 1st and shows the temperature conditions then prevailing :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st January.	Mean minimum temperature, 1st January.	Mean daily temperature, 1st January.
	°	°	°
Burma	−0·5	−1·3	−0·9
Assam	+0·6	+1·7	+1·2
Bengal	+0·6	+1·7	+1·2
Orissa	+5·4	+1·8	+3·6
Bihar	+2·9	+2·1	+2·5
Chota Nagpur	+9·3	+4·2	+6·8
North-Western Provinces and Oudh	+8·4	+5·7	+7·1
Punjab	+7·0	+4·0	+5·5

Province or Division.	Variation from normal of		
	Mean maximum temperature 1st January.	Mean minimum temperature, 1st January.	Mean daily temperature, 1st January.
	°	°	°
Sind	+5·3	+10·0	+7·7
Rajputana	+6·7	+6·7	+6·7
Gujarat	+4·3	+2·3	+3·3
Central India	+8·2	+6·4	+7·3
Central Provinces	+10·7	+4·1	+7·4
Berar	+10·5	+2·6	+6·6
West Coast	—1·2	—3·6	—2·4
Bombay Deccan	+6·7	+1·0	+3·9
Mysore	+3·5	—7·4	—2·0
Madras Coast	+1·9	—2·6	—0·4
Madras Deccan	+5·3	—1·1	+2·1
South India	+1·5	—6·6	—2·6

During the next four days the cold wave which was advancing on Baluchistan on the 1st spread over part of North-West India. The wave was, however, at no time intense, as is shown by the following comparative data for Baluchistan, the Punjab, Sind and Rajputana from the 2nd to the 5th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	2nd January.	3rd January.	4th January.	5th January.
	°	°	°	°
Baluchistan	—13·3	—9·3	—2·1	+2·0
Punjab	+2·9	—0·1	—1·9	+0·7
Sind	+0·8	—0·3	+2·3	+1·9
Rajputana	+5·2	+2·9	+0·6	+2·4

On the 6th a fresh fall of temperature appeared over Baluchistan and the West Punjab, and thence spread right across Northern India. The wave of cold was at no time intense, and was very slow in its movement towards the east. The following gives comparative data for Baluchistan and the different divisions of Northern India from the 6th to the 12th :—

Province or Division.	Variation from normal of mean temperature of 24 Hours preceding 8. A. M. of						
	6th January.	7th January	8th January.	9th January.	10th January.	11th January.	12th January.
	°	°	°	°	°	°	
Baluchistan	—4·5	—9·0	—8·2	—7·6	—3·5	+2·1	+5·2
Punjab	+0·5	+0·1	—2·2	—1·9	—1·8	—0·5	+0·4
Sind	—0·7	—1·4	—1·0	—2·3	—1·5	—3·0	—2·7
Rajputana	+5·3	+2·7	—3·5	—0·8	—1·3	—3·9	—1·6
North-Western Provinces and Oudh.	+4·0	+4·0	—1·0	—1·2	—3·1	—2·4	—3·1
Gujarat	+3·6	+2·9	—1·5	—2·3	—3·8	—1·2	+2·2
Central India	+2·7	+2·6	+0·1	+0·4	—1·9	—5·3	—3·2
Bengal	+0·4	+1·4	+1·2	+0·1	+1·4	+2·0	—0·6
Bihar	—0·8	+1·1	—1·1	—2·1	—3·6	—1·8	—3·5
Chota Nagpur	+4·0	+5·2	+2·6	+3·2	+2·3	+0·5	—0·9
Orissa	+4·7	+5·3	+6·5	+4·3	+4·9	+6·5	+2·0

In the meantime while these changes were in progress over Northern India the mean temperature remained very steady over the central parts of the country. As mentioned above, the storms and snowfalls in the mountains at this time were slight and more or less local and the cold waves which succeeded them were generally unimportant and confined to Northern India. As a result there was nothing to disturb the temperature conditions over the central parts of the country where the heat remained steadily excessive. The following gives comparative data for the central and Deccan districts for each alternate day from the 2nd to the 12th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	2nd January.	4th January.	6th January.	8th January.	10th January.	12th January
	°	°	°	°	°	°
Central Provinces	+6·3	+5·8	+6·6	+3·8	+3·1	+1·5
Berar	+7·9	+7·3	+8·0	+4·3	+4·1	+6·7
Bombay Deccan	+3·9	+2·6	+3·5	+2·3	+1·8	+5·6
Mysore	+0·7	+0·6	+0·9	+4·7	+5·9	+4·2
Madras Deccan	+2·4	+1·2	+1·8	+3·7	+8·3	+5·0

This excess was more marked in the day than in the night temperature and was very large on some days. The following gives actual variation data on each

day from the 2nd to the 9th for the stations at which the excess in the day temperature was more than 10° :—

Date.	Station.	Variation from normal of Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
2nd January	Nagpur	+13·4	+3·1	+8·3
	Raipur	+12·6	+5·1	+8·9
	Cocanada	+11·8	−1·3	+5·3
	Akola	+11·4	+2·6	+7·0
	Seoni	+11·3	+4·0	+7·7
	Amraoti	+10·7	+6·5	+8·6
	Chanda	+10·5	0	+5·3
	Malegaon	+10·4	+2·6	+6·5
	Umballa	+10·2	−1·1	+4·6
3rd "	Nagpur	+11·7	+2·7	+7·2
	Raipur	+11·1	+6·9	+9·0
	Akola	+11·0	+0·8	+5·9
	Mainpuri	+10·7	+2·9	+6·8
	Rajkot	+10·2	−1·7	+4·3
	Chanda	+10·1	+0·6	+5·4
4th "	Dinajpur	+11·4	−0·2	+5·6
	Raipur	+11·1	+5·0	+8·1
	Nagpur	+10·9	+4·5	+7·7
	Akola	+10·7	+0·5	+5·6
	Seoni	+10·1	+4·0	+7·1
5th "	Akola	+11·6	+1·9	+6·8
	Nagpur	+10·9	+6·9	+8·9
6th "	Akola	+12·7	+4·5	+8·6
	Nagpur	+11·0	+7·2	+9·1
	Amraoti	+10·9	+3·9	+7·4
	Raipur	+10·1	+4·3	+7·2
7th "	Chanda	+10·6	−0·2	+5·2
	Cocanada	+10·2	−0·8	+4·7
8th "	Cocanada	+11·8	−0·3	+5·8
	Cuddapah	+10·1	−0·7	+4·7
9th "	Cuddapah	+11·1	+4·1	+7·6

Over the Peninsula the temperature conditions were peculiar and no explanation suggests itself for the low temperatures which prevailed steadily over this area. The principal deficiency was in the night temperatures and as the air was very dry on some occasions this might perhaps account for the lowness of the night temperatures. These hygrometrical conditions were not, however, maintained throughout the period and it is remarkable that the most marked deficiency in the temperature was exhibited at the coast stations where the changes in the moisture of the air were smallest. The following gives comparative temperature data for the west, south and east of the Peninsula, on each alternate day from the 2nd to the 12th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 2nd January.	4th January.	6th January.	8th January.	10th January.	12th January.
	°	°	°	°	°	°
West Coast	−2·5	−1·9	−2·4	−1·0	−0·6	+1·2
Madras Coast	−0·3	−0·4	+0·5	+2·5	+4·5	+3·5
South India	−1·5	−0·7	−0·8	+3·6	+1·7	+1·7

The above shows that on the 12th the deficiency had disappeared from both sides of the Peninsula and on this day the mean temperature was in excess in all the Peninsular districts.

On the 12th, 13th and 14th the temperature conditions call for no special remark. The mean temperature was in excess over Baluchistan, the whole of the more central parts of the country and the Peninsula and was lower than usual over the Gangetic Plain, part of North-West India and Bengal. The following gives variation data for the 24 hours ending at 8 A.M. on the 13th to represent the general conditions existing during this short period :—

Province or Division.	Variation from normal of Mean maximum temperature, 13th January.	Mean minimum temperature, 13th January.	Mean daily temperature, 13th January.
	°	°	°
Burma	−0·2	+ 2·6	+1·2
Assam	−0·7	− 2·1	−1·4
Bengal	−1·8	− 3·6	−2·7
Orissa	−1·6	+ 1·7	+0·1
Bihar	−1·8	− 5·5	−3·7
Chota Nagpur	+0·2	− 2·4	−1·1
North-Western Provinces and Oudh	+1·7	− 3·9	−1·1
Punjab	+2·6	− 2·5	+0·1
Sind	+3·0	− 4·9	−1·0
Rajputana	+4·4	+ 2·9	+3·7
Gujarat	+6·0	+ 1·3	+3·7
Central India	+2·7	+ 3·2	+3·0
Central Provinces	+5·2	+ 5·9	+5·6
Berar	+6·8	+11·4	+9·1
West Coast	−0·7	+ 3·7	+1·5
Bombay Deccan	+5·1	+ 7·9	+6·5
Mysore	+2·8	+ 3·3	+3·1
Madras Coast	+2·4	+ 4·4	+3·4
Madras Deccan	+3·4	+ 3·6	+3·5
South India	+1·6	+ 1·6	+1·6

On the 14th the first seriously disturbed period in the weather commenced and on the 15th the mean temperature was falling very quickly in Baluchistan and the North-West Himalayas. This wave of cold spread slowly eastward and rapidly southward, extending as far as the west of the North-Western Provinces and of the Central Provinces, Berar, Khandesh and the west of the Peninsula. The following gives comparative temperature data for Baluchistan, North-West India and the west of the Peninsula from the 16th to the 22nd :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	16th January.	17th January.	18th January.	19th January.	20th January.	21st January.	22nd January
	°	°	°	°	°	°	°
Baluchistan .	−7·0	−15·0	−12·2	−3·1	−11·2	− 9·4	−13·6
Punjab . .	+1·3	− 1·3	− 7·6	−6·3	− 2·2	− 4·6	− 3·1
Sind . .	+0·7	− 8·6	−11·1	−6·6	− 6·4	−10·2	− 7·4
Rajputana .	−3·0	− 4·6	− 8·5	−8·1	− 6·4	− 1·3	− 3·5
Gujarat .	−2·4	− 4·9	− 9·1	−7·4	− 2·5	+ 0·7	− 3·6
West Coast .	−0·3	− 1·8	− 3·5	−2·1	+ 0·9	+ 2·8	+ 1·9
Bombay Deccan	−1·3	− 3·8	− 3·7	−0·5	+ 3·5	+ 6·2	+ 6·0

In the middle of this period, *viz.*, on the 17th, 18th and 19th very low temperatures, both by day and night, were recorded. The following gives actual variation data for the stations at which the reduction of temperature was most marked :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
17th January .	Quetta . .	−18·8	−11·9	−15·4
	Chaman . .	−17·3	−11·6	−14·5
	Jacobabad . .	−10·6	−12·0	−11·3
	Dsesa . .	− 6·1	−10·0	− 8·1
	Neemuch . .	− 4·9	−11·1	− 8·0
	Peshawar . .	−17·3	+ 1·4	− 8·0
	Quetta . .	−12·5	−12·2	−12·4
18th January .	Kurrachee . .	−10·3	−14·5	−12·4
	Bhuj . . .	−12·9	−11·1	−12·0
	Chaman . .	−10·6	−13·2	−11·9
	Hyderabad (Sind) .	− 9·9	−13·6	−11·8
	Dera Ismail Khan	−19·4	− 2·5	−11·0
	Rajkot . .	− 9·7	−11·3	−10·5
19th January .	Rajkot . .	−11·5	−11·2	−11·4
	Sirsa . .	− 9·7	− 8·7	− 9·2
	Bikaner . .	−11·0	− 6·9	− 9·0
	Sambhar . .	− 7·7	−10·0	− 8·9
	Hyderabad (Sind)	− 9·8	− 8·0	− 8·9
	Bhavnagar-Para .	− 8·1	− 8·7	− 8·4
	Bhuj . . .	−12·2	− 4·3	− 8·3

Extremely low night temperatures were recorded during this period in Baluchistan and on the hills and plains of North-West India. The following gives the more noteworthy minima recorded on each day during the period together with their variations from the normal :—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
17th January .	Quetta . . .	18·3	30·2	−11·9
	Chaman . .	22·1	33·7	−11·6
	Murree . . .	25·0	34·6	− 9·6
	Cherat . . .	28·5	37·5	− 9·0
	Jacobabad . .	32·0	44·0	−12·0
	Hyderabad (Sind) .	40·5	51·7	−11·2
	Neemuch . .	38·6	49·7	−11·1
	Jaipur . . .	39·5	49·8	−10·3
18th " .	Sjmla . . .	22·2	36·1	−13·9
	Chaman . . .	21·1	33·3	−13·2
	Quetta . . .	17·8	30·0	−12·2
	Murree . . .	22·5	34·6	−12·1
	Kurrachee . .	40·1	54·6	−14·5
	Bhavnagar-Para .	42·2	56·0	−13·8
	Hyderabad (Sind) .	38·0	51·6	−13·6
	Rajkot . . .	40·1	51·4	−11·3
	Bhuj . . .	43·5	54·6	−11·1
	Sambhar . . .	37·0	47·3	−10·3
	Srinagar . . .	15·6	24·8	− 9·2
19th "	Sirsa . . .	34·5	43·2	− 8·7
	Simla . . .	38·4	36·3	− 7·9
	Montgomery . .	34·5	42·0	− 7·5
	Rajkot . . .	40·1	51·3	−11·2
	Sambhar . .	37·3	47·0	−10.0

As mentioned above, this wave of cold never extended far to the eastward, so that the whole of Burma, North-East India, the central parts of the country and the eastern half of the Peninsula had steadily excessive temperatures, while the whole of North-West and Western India had colder weather than usual. The following gives comparative data for the districts in the eastern half of the Indian region from the 16th to the 22nd :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	16th January.	17th January.	18th January.	19th January.	20th January.	21st January.	22nd January.
	°	°	°	°	°	°	°
Burma	+1·1	+1·0	+1·7	+2·9	+2·3	+2·6	+1·6
Assam	+0·4	+0·5	+2·0	+3·3	+2·8	+1·6	+0·6
Bengal	+2·0	+1·4	+2·9	+2·9	+2·9	+2·8	+3·0
Orissa	+1·6	+2·4	+2·2	+0·8	+0·8	+2·6	+4·6
Bihar	−3·5	+0·4	+3·0	+2·3	+3·2	+2·2	+3·8
Chota Nagpur	−4·5	+0·4	−2·2	−1·9	+1·9	+4·0	+5·8
North-Western Provinces and Oudh.	+1·0	+2·4	+1·9	+1·0	+2·1	+2·4	−1·3
Madras Coast	+2·0	+2·8	+2·1	+2·8	+2·1	+1·8	+1·4
Central Provinces	+1·5	+1·7	+1·3	+1·4	+1·3	+7·0	+8·4
Berar	−0·1	+0·9	0	+2·2	+5·2	+9·5	+8·2
Madras Deccan	+6·4	+6·5	+4·3	+3·7	+5·4	+3·2	+3·9

On the 21st and 22nd a fresh disturbed period commenced and lasted until the 24th. On the 23rd a rapid fall of temperature commenced in Baluchistan and, extending quickly to North-West India, intensified the already existing area of deficient temperature over North-West India. This wave of cold extended southward to the west of the Peninsula as was the case with the previous wave, but the easterly extension of the wave was much more marked in this than during the previous disturbed period. The following gives variation data for Baluchistan, the Punjab, Sind, Rajputana, Gujarat, the West Coast, Central India, the Central Provinces and the North-Western Provinces from the 23rd to the 29th and shows the passage of the wave southward and eastward :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	23rd January.	24th January.	25th January.	26th January.	27th January.	28th January.	29th January.
	°	°	°	°	°	°	°
Baluchistan	−21·8	−20·7	−18·2	−7·8	−0·3	−3·5	−6·4
Punjab	−6·4	−7·8	−7·7	−6·8	−2·9	−0·8	+1·8
Sind	−11·2	−12·0	−11·1	−8·9	−3·2	−4·8	−2·6
Rajputana	−8·2	−11·2	−9·6	−7·9	−3·1	−1·1	+1·4
Gujarat	−8·6	−10·3	−11·5	−5·6	−3·7	−1·6	−1·8
Central India	−0·4	−3·7	−10·6	−7·2	−3·9	−0·7	−0·6
Central Provinces	+7·2	+4·9	−3·6	−1·2	+1·6	+5·3	+6·5
North-Western Provinces and Oudh.	+0·2	−1·6	−2·6	−4·5	−4·0	−4·0	−0·2
West Coast	−0·1	−1·8	−2·4	−0·5	+0·4	+0·9	−0·4

The snow line on this occasion descended very low down—in some places to as low as 1,600 feet above mean sea-level—and very low minimum temperatures were recorded in Baluchistan and North-West India at this time. The following were the more noteworthy minima recorded between the 22nd and 24th :—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
22nd January	Chaman	18·1	35·4	−17·3
	Quetta	20·8	31·7	−10·9
	Murree	24·5	35·0	−10·5
	Hyderabad (Sind)	41·5	51·7	−10·2
23rd "	Quetta	8·8	31·8	−23·0
	Kurrachee	42·2	56·4	−14·2
	Hyderabad (Sind)	38·0	51·9	−13·9
	Chaman	22·1	35·7	−13·6
	Murree	21·5	34·9	−13·4
	Bikaner	36·1	49·0	−12·9
	Bhuj	43·0	55·1	−12·1
24th "	Quetta	3·3	30·8	−27·5
	Jaipur	33·0	50·6	−17·6
	Hyderabad (Sind)	36·0	52·1	−16·1
	Chaman	19·1	35·1	−16·0
	Bhavnagar-Para	41·7	57·4	−15·7

Date.	Station.	Minimum temperature. Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
24th January	Bhuj	40·5	55·4	—14·9
	Sambhar	33·5	48·4	—14·9
	Kurrachee	43·2	56·9	—13·7
	Murree	21·5	34·5	—13·0
	Ajmer	33·9	46·3	—12·4

The nights of the 24th and 25th were abnormally cold over Gujarat, Southern Rajputana, Berar, Khandesh and the Central Provinces, where the following large variations from the normal were recorded:—

Date.	Province.	Station.	Minimum temperature. Actual of date.	Normal of date.	Variation of actual from normal of date.
			°	°	°
24th January	Gujarat	Bhavnagar-Para.	41·7	57·4	—15·7
		Bhuj	40·5	55·4	—14·9
	Rajputana	Jaipur	33·0	50·6	—17·6
		Sambhar	33·5	48·4	—14·9
		Ajmer	33·9	46·3	—12·4
	Khandesh	Málegaon	44·5	51·9	—7·4
		Surat	49·2	56·4	—7·2
25th "	Gujarat	Bhavnagar-Para.	41·7	57·3	—15·6
		Bhuj	46·0	55·2	—9·2
		Rajkot	43·0	51·5	—8·5
	Rajputana	Mount Abu	39·6	50·8	—11·2
		Deesa	43·6	50·9	—7·3
		Ajmer	39·9	45·9	—6·0
	Berar	Akola	46·2	53·3	—7·1
	Khandesh	Ahmedabad	42·2	58·4	—16·2
		Malegaon	42·4	51·4	—9·0
	Central Provinces	Khandwa	38·2	51·4	—13·2
		Pachmarhi	36·3	48·2	—11·9
		Hoshangabad	41·2	52·1	—10·9

The night of the 24th and 25th was the coldest period during the month in the central parts of the country, where the minimum temperatures registered were from 10° to 16° below the normal.

While this large depression of temperature was in progress over North-Western and Western India, the mean temperature over Burma, North-East India and the east and centre of the Peninsula remained steadily in slight to considerable or large excess. The following gives comparative data for the different divisions in the above areas from the 23rd to the 29th in illustration:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 23rd January.	24th January.	25th January.	26th January.	27th January.	28th January.	29th January.
	°	°	°	°	°	°	°
Burma	+0·9	+2·1	+1·6	+2·3	+3·9	+6·0	+5·4
Assam	+3·1	+4·3	+1·9	+7·9	+4·1	+0·6	+2·7
Bengal	+4·6	+4·2	+1·0	+5·2	+2·4	+1·7	+2·6
Orissa	+4·1	+2·2	+1·5	+3·3	+3·0	+3·4	+3·4
Bihar	+4·3	+2·6	+1·5	—1·1	—2·6	—1·8	—4·8
Chota Nagpur	+5·5	+2·5	+1·2	—1·1	+0·7	+3·7	+2·7
Madras Coast	+0·9	+1·3	+1·9	+1·2	+1·7	+1·5	+2·6
Madras Deccan	+2·5	+3·7	+1·8	+4·6	+5·4	+5·5	+5·1
Mysore	+2·6	+2·4	+1·5	+3·3	+5·4	+4·6	+3·5

After the 25th the effect of the snow diminished, and from the 26th onward the area of diminished temperature in North-West India gradually contracted and was followed day by day by an extension westward, north-westward and northward of the excessive temperatures which, as shown above, had held steadily over the eastern half of India. On the 30th and 31st the mean temperature was rising almost everywhere and the general excess of temperature obtaining at the close of the month is shown by the following comparative data for the 24 hours preceding 8 A.M. of the 31st:—

Province or Division.	Variation from normal of Mean maximum temperature, 31st January.	Mean minimum temperature, 31st January.	Mean daily temperature, 31st January.
	°	°	°
Burma	+3·6	+5·8	+4·7
Assam	+4·1	+1·9	+3·0
Bengal	+3·5	+6·9	+5·2
Orissa	+3·5	+3·7	+3·6
Bihar	+1·6	+9·8	+5·7

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 31st January.	Mean minimum temperature, 31st January.	Mean daily temperature, 31st January.
	°	°	°
Chota Nagpur	+3·1	+9·3	+6·2
North-Western Provinces and Oudh	+1·6	+9·7	+5·7
Punjab	+5·0	+1·9	+3·5
Sind	+2·3	—2·4	—0·1
Rajputana	+3·2	+6·2	+4·7
Gujarat	+0·6	—2·3	—0·9
Central India	—0·3	+7·1	+3·4
Central Provinces	+6·0	+12·1	+9·1
Berar	+8·1	+8·3	+8·2
West Coast	—0·9	+2·2	+0·7
Bombay Deccan	+4·4	+3·2	+3·8
Mysore	+1·6	+3·8	+2·7
Madras Coast	+1·4	+3·3	+2·4
Madras Deccan	+1·4	+5·8	+3·6
South India	+2·5	+5·6	+4·1

The following table gives the variations of the mean temperature week by week and also for the month. The data are taken from the weekly weather reviews published in the *Gazette of India*.

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE FOR WEEK ENDING					
	6th January.	13th January.	20th January.	27th January.	3rd February.	For whole month, January 1900.
	°	°	°	°	°	°
Burma	+0·2	+1·5	+1·6	+2·3	+5·0	+2·0
Assam	+1·1	—1·2	+0·8	+3·9	+3·6	+1·3
Bengal	+2·1	+0·4	+1·4	+4·2	+5·1	+2·2
Orissa	+4·3	+4·2	+1·4	+3·3	+4·0	+3·3

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE FOR WEEK ENDING					
	6th January.	13th January.	20th January.	27th January.	3rd February.	For whole month, January 1900.
	°	°	°	°	°	°
Bihar	+1·8	—2·1	+0·3	+2·0	+2·4	+0·6
Chota Nagpur	+5·3	+1·7	—0·3	+3·4	+5·5	+2·7
North-Western Provinces and Oudh.	+4·5	—1·1	+1·7	—1·6	+2·5	+0·7
Punjab	+2·3	—0·8	—1·6	—5·6	+2·5	—1·4
Sind	+2·6	—1·8	—4·5	—9·1	—0·8	—3·2
Rajputan	+4·2	—0·7	—3·7	—6·4	+3·1	—1·5
Gujarat	+3·6	0	—3·3	—6·1	—0·8	—1·7
Central India	+4·3	—0·6	—0·9	—2·9	+2·4	—0·1
Central Provinces	+6·3	+3·5	+2·5	+3·5	+7·4	+4·3
Berar	+7·2	+5·9	+3·5	+3·7	+8·1	+5·6
West Coast	—2·1	—0·3	—0·6	0	+0·5	—0·6
Bombay Deccan	+3·8	+3·4	+0·4	+2·8	+4·3	+2·8
Mysore	+0·1	+4·9	+4·2	+3·4	+3·0	+3·3
Madras Coast	—0·2	+3·1	+2·6	+1·5	+1·7	+2·2
Madras Deccan	+2·0	+4·9	+5·2	+3·9	+4·3	+4·4
South India	—1·3	+2·7	+2·3	+2·4	+3·0	+1·9

In Persia and Arabia the temperature conditions were generally similar to those over North-West India. The weather was slightly disturbed during the first week, and Baghdad recorded the minimum of the month (32°·5) on the 5th, and Dasht Arjin (25°) on the 6th. There then followed a hot period between the 7th and 16th, after which there were two disturbed periods—one between the 17th and 19th, the second between the 21st and 24th. The latter period was accompanied with very low temperatures, Sireand reporting a minimum of 21° on the 21st; Baghdad of 35°·9 on the 22nd; Meshed of zero on the 24th; Sharigh of 15° on the 23rd; and Muscat of 62° on the 23rd.

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 by the use of Lambert's formula, in which equal v are given to each wind observation. The mean directions are shown in Plate I by means of arrows i usual manner.

The wind data for 10 and 16 hours are given in a si.

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.

The following gives a statement of the chief features of the air movement of the month based on a comparison of the mean wind direction and intensity (determined from the 10 and 16 hours' wind observations) and the corresponding normal values of these elements for the month.

The winds were generally more northerly than usual over Arakan and the Bay Islands, but the variations were not important. The steadiness was about the normal, but the force was lower than usual, more particularly at Cocos Island, where the velocity was less than half the average. The winds were more easterly than the normal around the head of the Bay. The following data show the amount of the easterly deflection in this neighbourhood :—

Station.	Mean wind direction.		
	Actual, January 1900.	Normal, January.	Easterly deflection.
	°	°	°
Chittagong	N 5 E	N 26 W	+31
Calcutta	N 5 W	N 36 W	+31
Sugor Island	N 18 E	N 6 W	+24
Ise Point	N 72 E	N 57 E	+15

The variations as regards steadiness and velocity in this ion were irregular and unimportant. In West Bengal winds were very unsteady and were somewhat more therly than the normal. The following gives data for azaribagh and Darbhanga representing this region :—

Station.	Mean steadiness.			Mean wind direction.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual January 1900.	Normal, January.	Westerly deflection.
				°	°	°
Hazaribagh	14	49	−35	S 86 W	N 53 W	
Darbhanga	16	46	−30	S 61 W	S 80 W	−19

In the Gangetic Plain the wind was northerly and was considerably stronger than usual. The following gives data for Allahabad in illustration :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, January 1900.	Normal, January.	Northerly deflection.	Actual, January 1900.	Normal, January.	Variation of actual from normal January 1900.
	°	°	°			
Allahabad	N	N 40 W	+40	148	81	+67

In the Upper Sub-Himalayas the wind was very unsteady but was generally stronger than the average. The direction was more westerly than usual at the majority of stations, as will be seen from the following data :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Westerly deflection.	Actual January 1900.	Normal January.	Variation of actual from normal, January
				°	°	°			
Dehra Dun	13	18	− 5	S 61 W	S 69 W	− 8	50	40	+10
Roorkee	6	19	−13	N 81 W	N 76 W	+ 5	76	51	+25
Meerut	31	42	−11	S 78 W	N 56 W	...	74	49	+25
Lahore	24	20	+ 4	N 64 W	N 27 W	+37	50	43	+ 7
Ludhiana	26	29	− 3	S 89 W	N 54 W	...	68	35	+33

Winds in the Indus Valley varied irregularly from the normal, as will be seen from the following comparative data :—

Station.	Mean wind direction.	
	Actual, January 1900.	Normal, January.
	°	°
Peshawar	N 64 W	S 2 W
Jacobabad	N 40 W	N 4 W

The steadiness in this area was low, but not lower than usual. In Eastern Rajputana the wind blew from a little to the west of north instead of from the east, while in the south of Rajputana the direction was exactly normal. The steadiness was greater than usual. The following gives data for Jaipur and Deesa in illustration:—

Station.	Mean wind direction.		Mean steadiness.		
	Actual, January 1900.	Normal, January.	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January, 1900.
	°	°			
aipur . . .	N 17 W	N 8 E	32	18	+14
eesa . . .	N 19 E	N 20 E	47	38	+ 9

The following gives comparative data of the direction, steadiness, and velocity of the wind in the different provinces of Northern India :—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
				°	°			
engal . .	35	35	0	N 6 E	N 22 W	102	101	+ 1
ihar . . .	16	46	−30	S 61 W	S 80 W	64	63	+ 1
hota Nagpur .	14	49	−35	S 86 W	N 53 W	168	135	+33
rissa . .	37	22	+15	N 72 E	N 57 E	131	147	−16
orth-Western Provinces and Oudh.	19	26	− 7	N 80 W	N 70 W	87	55	+32
unjab . .	22	18	+ 4	N 74 W	N 67 W	55	47	+ 8
ind . . .	33	24	+ 9	N 4 W	N 10 E	126	145	−19
ajputana . .	40	28	+12	N	N 13 E	167	146	+21

The principal feature in the above is the increased easting in the wind direction and the generally higher elocity of the wind on the mean of the month.

The variations between the actual and normal wind rections in the Deccan division were peculiar. Thus, in e south, the wind was more southerly and less easterly an the average. The following gives data for Belgaum, olapur and Hyderabad:—

Station.	Mean wind direction.		
	Actual, January 1900.	Normal, January.	Southerly deflection.
	°	°	°
Belgaum	S 4 E	S 75 E	+71
Sholapur	S 18 E	S 59 E	+41
Hyderabad (Dn.)	S 39 E	S 51 E	+12

On the other hand, in the Central Provinces and Berar, there was a north-north-westerly to west-north-westerly wind instead of the usual north-east to east-north-easterly wind. The north-westerly wind was generally stronger and the southerly wind generally weaker than the average; the following gives comparative data :—

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, January 1900.	Normal, January.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	°	°			
Akola . . .	N 73 W	N 50 E	114	88	+26
Buldana . . .	N 62 W	N 75 E	196	132	+64
Khandwa . . .	N 31 W	N 21 E	120	74	+46
Nagpur . . .	S 20 W	N 71 E	153	93	+60
Belgaum . . .	S 4 E	S 75 E	196	249	−53
Sholapur . . .	S 18 E	S 59 E	156	184	−28
Hyderabad (Dn.) .	S 39 E	S 51 E	88	90	− 2

Along the West Coast the wind blew from north by west and north-west and was more westerly than usual. The steadiness and velocity were lower in the case of Bombay and higher in the case of Karwar than the average.

In South India the wind was on the whole less easterly than usual, but the variations from the normal were not large, except in the case of Madras, comparative data for which station are given below:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Easterly deflection.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
				°	°	°			
Madras	84	78	+6	N 68 E	N 49 E	+19	99	141	−42

The following gives comparative data of the direction, steadiness and strength of the wind in different parts of the Peninsula:—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Central Provinces	16	26	−10	° W	° N 46 E	137	84	+53
Berar	24	21	+ 3	N 68 W	N 63 E	155	110	+45
Bombay Deccan	33	36	− 3	S 13 W	S 83 E	189	189	0
West Coast	55	56	− 1	N 19 W	N 7 W	164	156	+ 8
Madras Deccan	49	62	−13	S 46 E	S 60 E	97	86	+11
Mysore	69	78	− 9	S 76 E	N 87 E	149	145	+ 4
Madras Coast	84	78	+ 6	N 68 E	N 49 E	99	141	−42
South India	63	62	+ 1	N 72 E	N 82 E	124	117	+ 7

The only important variation in the wind direction from the normal is shown in the Central Provinces, Berar and the Bombay Deccan. In these areas the wind was unusually westerly and north-westerly, and this variation is interesting in face of the remarkable manner in which the low temperatures of North-West India after the first disturbed period were carried southward into the west of the Peninsula, Khandesh, and the west of the Central Provinces, while the more northerly wind in the Lower Gangetic Plain (Allahabad) perhaps explains the slowness of the transmission of the cold wave eastward.

At Quetta the wind was west-south-westerly instead of west-north-westerly, blowing with greater steadiness, but less velocity than usual. The winds were generally above their normal strength at the hill stations in Northern India, while they were considerably steadier than usual at Leh, Simla and Darjeeling. The variations in the direction from the normal were irregular. Winds were stronger and steadier than usual at Mount Abu and Pachmarhi and were more southerly than the average. The following gives comparative data of direction, steadiness and velocity for these two stations:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Pachmarhi	29	10	+19	° S 88 W	° N 79 W	97	78	+19
Mount Abu	19	11	+ 8	S 83 W	N 69 W	168	119	+49

At Wellington the wind was more easterly and steadier than usual. The following gives comparative data:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Easterly deflection.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Wellington	82	65	+17	° S 43 E	° S 27 E	° +16	52	52	0

The winds were considerably more easterly than usual at Zanzibar and slightly more westerly than usual at the Seychelles. The velocity was low at both stations and so also was the steadiness. The following gives data for these two stations:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, January 1900.	Normal percentage, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Actual, January 1900	Normal, January.	Variation of actual from normal, January 1900.
Zanzibar	58	69	−11	° N 47 E	° N 35 E	172	196	−24
Seychelles	50	66	−16	N 46 W	N 43 W	127	144	−17

Pressure was generally lower than usual over Northern and Central India and the northern parts of the Bay, while in the south of the monsoon area and in the Equatorial Belt pressure was higher than usual. Hence the gradients for north-east monsoon winds were somewhat slighter than usual, and the north-east winds over the Bay were a trifle weaker than the normal. This is shown below:—

Area.	Wind force at 8 A.M.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Arabian Sea	3·7	3·3	+0·4
Bay of Bengal	2·9	3·0	−0·1

The following gives comparative data of the mean air movement for the various provinces based on Table I:—

Province or division.	Mean wind velocity in miles per diem.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Burma	67	74	−7
Assam	65	62	+3
Bengal	48	70	−22
Orissa	122	89	+33
Bihar	82	46	+36
Chota-Nagpur	82	118	−36
North Western Provinces and Oudh	65	60	+5
Punjab	72	46	+26
Sind	132	154	−22
Rajputana	113	98	+15
Gujarat	137	132	+5
Central India	94	96	−2
Central Provinces	74	62	+12
Berar	120	79	+41
West Coast	137	190	−53
Bombay Deccan	161	166	−5
Mysore	149	91	+58
Madras Coast	166	120	+46
Madras Deccan	146	91	+55
South India	103	110	−7

Humidity and Cloud.

The hygrometric data of the month employed in the following paragraphs 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 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 normal values, by means of which the variations have been derived, are the means calculated in the same way for periods varying from 3 to 50 years.

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 daily means are the arithmetical means of the cloud amount at 10 and 16 hours, and the normal means, with which the actual daily means of the month are compared, are the means for periods varying from 3 to 50 years of the available cloud data for the same hours.

The air was drier than usual, on the mean of the month, over the greater part of the country, but on both coasts of the Peninsula, in the east of the North-Western Provinces, the west of Bengal and in Arakan it was more or less damper than the average. The mean humidity was in greatest defect in Sind, but was in large defect in the Bombay Deccan and in considerable defect in Mysore. The excess was greatest and more than 5°/₀ on the Madras Coast, in Orissa and over the west of Bengal.

The vapour tension was about normal and the mean relative humidity slightly below the average at Rangoon, but at the remaining stations in Burma and the Bay Islands the absolute humidity was in considerable excess, so that, though the mean temperature was excessive, the

mean relative humidity of the month was above the normal. The following gives comparative data:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January. 1900.
	"	"	"	%	%	
Port Blair . . .	·841	·787	+·054	78	76	+2
Cocos Island . .	·731	·662	+·069	73	71	+2
Diamond Island . .	·712	·630	+·082	72	70	+2
Rangoon . . .	·549	·551	—·002	63	64	—1

In Bengal and Orissa the absolute humidity was in considerable to large excess on the mean of the month, so that, notwithstanding the high temperature prevailing, the relative humidity was normal or in excess. Comparative data for the stations in this area are given below:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
False Point . . .	·675	·537	+·138	84	78	+6
Chittagong . . .	·526	·467	+·059	74	73	+1
Saugor Island . .	·562	·519	+·043	75	75	0
Calcutta . . .	·484	·402	+·082	68	69	—1

In the Gangetic Plain the air was also damper than usual, but in this area any excess of temperature was very small, so that the relative humidity was in greater excess in this than in other parts of India. The following gives data in illustration:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Hazaribagh . . .	·325	·268	+·057	59	51	+8
Darbhanga . . .	·442	·396	+·046	78	71	+7
Allahabad . . .	·374	·339	+·035	69	66	+3

The weather was unsettled during the latter half of the month in the Upper Sub-Himalayas, but the absolute humidity on the mean of the month was below the normal, and this combined with higher temperatures than usual occasioned abnormally low relative humidities. The following gives comparative data for this area:—

Station.	Absolute humidity			Relative humidity.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Ludhiana . . .	·239	·289	—·050	59	69	—10
Dehra Dun . .	·238	·274	—·036	58	67	—9
Roorkee . . .	·259	·289	—·030	59	66	—7
Meerut . . .	·275	·290	—·015	60	65	—5
Lahore . .	·232	·272	—·040	59	63	—4

In the Indus Valley, Rajputana and Gujarat the air was abnormally dry, so that, even though the mean temperature in these two regions was below the average, the relative humidity was in considerable to large defect. This deficiency was particularly marked at Kurrachee and is remarkable, as there was no important variation in the wind's direction at that station. The following gives comparative data for these two divisions:—

Station.		Absolute humidity.			Relative humidity.		
		Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January	Variation of actual from normal, January 1900.
		"	"	"	%	%	
Indus Valley.	Kurrachee .	·198	·351	—·153	32	56	—24
	Jacobabad .	·177	·229	—·052	42	49	—7
	Peshawar .	·196	·225	—·029	58	62	—4
Rajputana.	Deesa .	·132	·252	—·120	21	37	—16
	Jaipur .	·211	·274	—·063	41	53	—12

The following table shows the variations of the mean

humidity conditions of the month from the normal for the different divisions of Burma and Northern India.

DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, January 1900.	Normal, January	Variation of actual from normal, January 1900	Actual, January 1900.	Normal, January	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Burma Coast and Bay Islands	·708	·657	+·051	72	71	+1
Bengal	·524	·463	+·061	72	72	0
Orissa	·675	·537	+·138	84	78	+6
Chota Nagpur	·325	·268	+·057	59	51	+8
Bihar	·442	·396	+·046	78	71	+7
North-Western Provinces and Oudh	·287	·314	—·027	62	67	—5
Punjab	·222	·262	—·040	59	65	—6
Sind	·188	·291	—·103	37	53	—16
Rajputana	·172	·264	—·092	31	45	—14

The above shows that as far west as Bihar and Chota Nagpur the mean absolute and relative humidities of the month were above the normal but that further to the westward both were in greater or less defect.

In the Deccan the amount of vapour in the air was below the normal while the mean temperature was in excess so that the relative humidity was at almost all stations lower than usual, but particularly so at Sholapur, Buldana and Khandwa. The following gives comparative data for this area :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Buldana	·197	·310	—·113	24	44	—20
Khandwa	·249	·325	—·076	34	49	—15
Sholapur	·260	·350	—·090	29	44	—15
Akola	·324	·329	—·005	36	48	—12
Hyderabad (Deccan)	·426	437	—·011	51	60	—9
Nagpur	·381	·359	+·022	44	52	—8
Poona	·275	·316	—·041	39	42	—3
Belgaum	·340	·345	—·005	47	47	0

Along the West Coast the humidity conditions were irregular. Thus at Bombay where the wind blew from a little to the west of north, both the absolute and relative humidities were in defect, while on the contrary at Karwar, where the wind was more westerly than usual both were in excess. The following gives data for these two stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, January, 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Karwar	·599	·590	+·009	71	69	+2
Bombay	·499	·577	—·078	60	69	—9

At Madras where the wind was more easterly than usual and consquently more directly from the Bay the vapour tension and the mean relative humidity were above the normal. This is shown by the following comparative data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Madras	·751	·654	+·097	84	75	+9

At the remaining stations in South India the relative humidity was in defect of the normal though at Chitaldroog and Salem the absolute humidity was in slight excess. The following gives data for the stations in South India where the relative humidity was in defect :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January	Variation of actual, from normal, January 1900.
	"	"	"	%	%	
Bellary	·369	·426	—·057	41	52	—11
Mysore	·391	·447	—·056	50	60	—10
Hassan	·350	·385	—·035	51	57	—6
Bangalore	·399	·405	—·006	56	61	—5
Chitaldroog	·363	·354	+·009	42	46	—4
Salem	·569	·564	+·005	62	65	—3

The mean conditions over the Peninsula on the mean of the month were as follows:—

Division.	Mean Absolute Humidity.			Mean Relative Humidity.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Central Provinces	·315	·342	—·027	39	51	—12
Berar	·261	·320	—·059	30	46	—16
Bombay Deccan	·292	·337	—·045	38	44	— 6
Madras Deccan	·398	·432	—·034	46	56	—10
Mysore	·376	·398	—·022	50	56	— 6
Madras Coast	·751	·654	+·097	84	75	+ 9
South India	·569	·564	+ ·005	62	65	— 3
West Coast	·549	·584	—·035	66	70	— 4

The observations for Quetta and the hill stations in Northern India show that the mean temperature in these regions was very low, so that though the absolute humidity was in most cases lower than the normal, the relative humidity was generally in slight excess. At Leh, however, the deficiency in the relative humidity was on the contrary very large. The following gives data:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Simla	·137	·147	—·010	64	58	+ 6
Chakrata	·148	·156	—·008	67	62	+ 5
Quetta	·138	·158	—·020	72	67	+ 5
Srinagar	·153	·154	—·001	86	82	+ 4
Darjeeling	·204	·203	+·001	84	81	+ 3
Katmandu	·233	·249	—·016	74	73	+ 1
Ranikhet	·170	·193	—·023	61	63	— 2
Leh	·036	·072	—·036	43	67	—24

The air was abnormally dry at the central and southern hill stations. Data are given below in illustration:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, January 1900.	Normal January.	Variation of actual from normal January 1900.	Actual, January 1900	Normal, January.	Variation of actual from normal, January 1900.
	"	"	"	%	%	
Chikalda	·248	·309	—·061	37	52	—15
Mount Abu	·145	·207	—·062	31	43	—12
Pachmarhi	·270	·284	—·014	47	55	—8
Wellington	·284	·302	—·018	45	68	—23

The above shows that at the level of the hills the dampness of the air was as largely below the normal as at the neighbouring plains stations. In Equatorial regions the air was slightly damper than usual.

There were three periods of exceptional dryness in Northern India during the first half of the month, each accompanying the appearance of anti-cyclonic conditions over North-West India. The first lasted from the 2nd to the 4th when the following low humidities were recorded:

Station.	Date.	Hour.	Lowest humidity recorded during January 1900.
			%
Leh	2nd	10	0
Leh	4th	16	0
Leh	4th	10	5
Mount Abu	2nd	10	8
Muktesar	4th	10	9
Simla	4th	10	10
Deesa	4th	10	10

The second period occurred between the 5th and the 10th when the following readings were registered:—

Station.	Date.	Hour.	Lowest humidity recorded during January 1900.
			%
Leh	6th, 7th, and 8th	10	0
Leh	6th & 7th.	16	0
Leh	10th & 11th	10	0
Leh	10th & 11th	16	0
Hazaribagh	5th	16	10
Mount Abu	5th	10	10

The third period occurred between the 16th and the 20th when low humidities were recorded in Rajputana, Gujarat, *etc.* The following gives the most noteworthy examples of the dryness of the air at this period:—

STATION.	Date.	Hour.	Lowest humidity recorded during January 1900.
			%
Udaipur	17th	16	5
Deesa	16th	16	6
Jamnagar	18th	10	7

The following gives the lowest humidities recorded at stations at which relative humidity percentages below 10 were recorded during the month:—

STATION.	Date.	Hour.	Lowest humidity recorded during January 1900.
			%
Leh	2nd	10 hours	0
	6th, 7th and 8th.	10 "	0
	10th and 11th	10 "	0
	15th	10 "	0
	19th and 20th	10 "	0
	25th and 26th	10 "	0
	29th, 30th and 31st.	10 "	0
	4th	16 "	0
	6th and 7th	16 "	0
	10th and 11th	16 "	0
	20th	16 "	0
	28th, 29th, 30th and 31st.	16 "	0
Akola	24th	16 "	3
Mount Abu	11th	10 "	4
Leh	4th	10 "	5
	23rd	10 "	5
Kodaikanal	1st and 2nd	8 "	5
Udaipur	17th	16 "	5
Belgaum	3rd and 4th	16 "	5
Leh	12th	16 "	6
Mount Abu	11th	16 "	6
Rajkot	25th	8 "	6
Kodaikanal	5th and 6th	8 "	6
Akola	28th	10 "	6
Nagpur	24th	16 "	6
Deesa	24th	10 hours	6
	16th	16 "	6
Poona	2nd	16 "	7
Akola	4th	16 "	7
Kurrachee	23rd	10 "	7
Deesa	12th	16 "	7
Jamnagar	18th	10 "	7
Kodaikanal	5th	10 "	7
Mount Abu	2nd	10 "	8
Kodaikanal	2nd	10 "	8
Akola	25th	10 "	8
Kurrachee	23rd	16 "	8
Mysore	5th	16 "	9
Kodaikanal	3rd	10 "	9
	16th	10 "	9
Sholapur	24th	8 "	9
Kodaikanal	3rd	8 "	9
Akola	6th	16 "	9
	8th	16 "	9
Sholapur	1st and 8th	16 "	9
Muktesar	4th	10 "	9

The above shows that the lowest humidity percentages except in the case of Leh, were recorded generally in the central districts of India and North Bombay, but that a Kodaikanal and in Mysore in the early part of the month the air was also very dry.

The chief features of the humidity conditions of the month were hence as follows:—

(1) The air was damper than usual over West Bengal, the east of the North-Western Provinces, the South Konkan and the whole of the Bay area.

(2) The air was drier than usual over the whole of the remainder of India.

(3) The air was excessively dry over Sind and Ladakh.

(4) The air was very dry over the west of the Central Provinces, the Bombay Deccan and Mysore.

(5) The air was generally damper than usual in Baluchistan and on the outer ranges of the Himalayas, while it was very to excessively dry at the level of the hill stations in Central and Southern India.

The amount of cloud was less than usual in two areas, the first including Lower Burma and the Bay Islands and the second including the hills and plains of the North

Punjab. The following gives comparative data for these two areas in illustration.

Area.	Station.	Mean cloud amount		
		Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
First Area	Rangoon	0·8	2·0	—1·2
	Diamond Island	1·4	2·3	—0·9
	Port Blair	3·3	3·4	—0·1
	Cocos Island	1·9	2·0	—0·1
Second Area	Srinagar	5·7	7·9	—2·2
	Peshawar	4·5	4·8	—0·3

The amount of cloud was also in defect locally in part of the south of the Peninsula. The following gives comparative data for the two stations in this area :—

Station.	Mean cloud amount.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Bangalore	1·9	2·5	—0·6
Wellington	2·6	3·2	—0·6

Over the whole of the remainder of India including both hills and plains, the amount of cloud was in excess of the normal. The following gives comparative data for this large area of increased cloudiness :—

Division.	Mean cloud amount.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Arakan	2·9	1·3	+1·6
Bengal	3·1	1·4	+1·7
Orissa	4·8	2·0	+2·8
Bihar	3·7	1·4	+2·3
Chota Nagpur	7·5	2·3	+5·2
North-Western Provinces and Oudh.	5·6	3·2	+2·4
Punjab	4·3	4·0	+0·3
Baluchistan	4·4	4·1	+0·3
Sind	3·4	2·8	+0·6
Rajputana	3·6	2·7	+0·9
Central Provinces	3·9	1·8	+2·1
Berar	4·0	2·2	+1·8
West Coast	1·5	1·1	+0·4
Bombay Deccan	2·8	1·6	+1·2
Madras Deccan	3·8	1·9	+1·9
Madras Coast	4·5	4·0	+0·5
Mysore	3·2	2·6	+0·6
Upper India, Hill Stations	6·3	5·2	+1·1
Sikkim Himalayas	5·6	4·5	+1·1
Central India, Hill Stations	4·0	2·3	+1·7

The excess was greatest over the east of the North-Western Provinces and the west of Bengal, but it was also large in parts of Berar and of the Madras Deccan. The following gives comparative data for the stations at which the amount of cloud was in excess by 2 or more :—

Station.	Mean cloud amount.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Hazaribagh	7·5	2·3	+5·2
Allahabad	6·5	2·1	+4·4
Akola	4·7	1·4	+3·3
False Point	4·8	2·0	+2·8
Pachmarhi	4·9	2·3	+2·6
Nagpur	4·6	2·1	+2·5
Bellary	4·5	2·2	+2·3
Darbhanga	3·7	1·4	+2·3

The amount of cloud was in excess at all the hill stations

except Srinagar and Wellington, as will be seen from the following table:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Pachmarhi	4·9	2·3	+2·6
Mount Abu	4·3	2·4	+1·9
Ranikhet	5·6	4·1	+1·5
Chakrata	6·0	4·6	+1·4
Katmandu	4·6	3.3	+1.3
Simla	6·7	5·6	+1·1
Darjeeling	6·5	5·7	+0·8
Chikalda	2·8	2·2	+0·6
Leh	6·8	6·6	+0·2
Srinagar	5·7	7·9	—2·2
Wellington	2·6	3·2	—0·6

The mean cloud amount for the month was less than 1 only at Rangoon (0·8) while it was more than 5 at the stations for which data are given below:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.
Hazaribagh	7·5	2·3	+5·2
Leh	6·8	6·6	+0·2
Simla	6·7	5·6	+1·1
Darjeeling	6·5	5·7	+0·3
Allahabad	6·5	2·1	+4·4
Dehra Dun	6·0	4·2	+1·8
Chakrata	6·0	4·6	+1·4
Srinagar	5·7	7·9	—2·2
Ranikhet	5·6	4·1	+1·5
Roorkee	5·2	3·4	+1·8

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

(1) Cloud was in slight to moderate defect over Lower Burma and the Bay Islands.

(2) Cloud was in slight to considerable defect in the North Punjab and in slight defect in part of the south of the Peninsula.

(3) Over the remainder of India the cloud amount was in excess.

(4) The excess was greatest and large over West Bengal, the Gangetic Plain and the Central Provinces.

Rainfall.

Rainfall observations are made at upwards of 2,000 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. A weekly statement of the rainfall of every district is telegraphed to the Simla Meteorological Office by District Officers, and a summary of this information is published in the *Gazette of India* weekly.

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 information relating to the month telegraphed to Simla by District Officers, and 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 220 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 variation 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.

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.

About the middle of the month of January there occurred a fairly general fall of rain over North-Western and Central India which at least in some places, broke the period of drought which had prevailed practically since July or August over that region.

There were two periods of rain in Northern India. The first began on the 13th and lasted till the 18th. The rainfall commenced with very light showers in the Central Provinces and was due to the advance of a shallow ill-defined barometric depression from Persia to the Western desert. This depression advanced eastward through Rajputana to the eastern states of Central India during the next 48 hours, and its advance was marked by showers in the Central Provinces, Bundelkhand, Baghelkhand and the adjoining districts of the North- Western Provinces on the 14th and 15th and in the east of the North Western Provinces, Chota Nagpur and Bihar on the 15th and 16th. During this period a secondary depression appeared over the east and centre of the Punjab.

This secondary depression occasioned rain and snow on the North-West Himalayas and rain in the submontane districts of Upper India on the 14th. The rain and snow due to this depression continued over the Punjab and the Upper India hill districts until the 18th, when the first period of disturbance ceased.

On the 19th and 20th there were local showers in South Madras.

On the 20th the second period of rainfall commenced. This disturbed period like the preceding one was due to a complicated disturbance, a shallow primary depression passing from Persia through Afghanistan and Baluchistan into Sind and thence passing east-ward through Rajputana and the Central Provinces, at the same time that a secondary depression travelled slowly along the line of the hills from the North Punjab to the east of the North-Western Provinces. Snow commenced in Baluchistan and the North-West Himalayas and rain in the West Punjab on the 20th; thence rain extended to the Punjab plains (except the South), Western Rajputana and the central districts of the North-Western Provinces on the 21st; and to Bihar, Chota Nagpur and the north of the Central Provinces on the 22nd. This fall, of rain on the plains and of snow on the hills, continued until the 24th when both ceased abruptly.

These were the only general falls of rain, but snow was again received in Baluchistan on the 28th and showers of rain were reported from the North-Western Provinces and Bengal between the 28th and the 31st.

The above summary shows that up to the 13th the weather was fine and practically rainless over India. This is interesting when compared with the progress of rainfall in Equatorial regions where the opposite conditions prevailed. Thus at Singapore there was daily rain up to the 14th, during which period 7·46 inches of rain fell out of a total of 7·98 inches for the whole month, and at Zanzibar almost daily rain was obtained up to the 14th during which 4·36 inches of rain fell out of the 4·45 inches which made the total of the month. On the other hand nearly all the rain in the northern part of the monsoon area, from Baghdad in the west to Yatung in the east, was received between the 14th or 15th and the end of the month.

The following table gives comparative rainfall data for the 55 meteorological districts into which India is divided:—

Provinces.	Division.	Number of rainy days. Average actual, January 1900.	Number of rainy days. Average normal, January.	Rainfall. Average actual, January 1900.	Rainfall. Average normal, January.	Rainfall. Variation of actual from normal, January 1900.
				Inches	Inches.	Inches.
Burma	Tenasserim*	...	...	0·01	0·02	− 0·01
	Lower Burma (Deltaic)*	...	...	0	0·13	− 0·13
	Central do.*	...	...	0	0·09	− 0·09
	Upper do.*	...	...	0·03	0·16	− 0·13
	Arakan*	...	...	0	0·09	− 0·09
Bengal and Assam	Eastern Bengal	0·1	0·9	0·04	0·44	− 0·40
	Assam (Surma)	0	1·2	0·07	0·60	− 0·53
	Do. (Hills)	0·7	1·3	0·24	0·61	− 0·37
	Do. (Brahmaputra)	1·3	2·2	0·47	0·88	− 0·41
	Deltaic Bengal	0·1	0·8	0·03	0·40	− 0·37
	Central do.	1·8	0·8	0·80	0·43	+ 0·37
	North do.	0·8	1·0	0·27	0·50	− 0·23
	Bengal Hills	2·0	1·4	0·58	0·86	− 0·28
	Orissa	0·1	0·6	0·04	0·35	− 0·31
	Chota Nagpur	4·0	1·2	2·36	0·57	+ 1·79
	Bihar (South)	5·7	1·2	3·04	0·65	+ 2·39
	Do. (North)	3·9	1·2	1·99	0·71	+ 1·28

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Province.	Division.	Number of rainy days. Average actual, January 1900.	Number of rainy days. Average normal, January.	Rainfall. Average actual, January 1900.	Rainfall. Average normal, January.	Rainfall. Variation of actual from normal, January 1900.
				Inches.	Inches.	Inches.
North-Western Provinces and Oudh.	North-Western Provinces (East)	5·9	1·4	3·44	0·65	+ 2·79
	Oudh (South)	4·3	1·4	2·74	0·72	+ 2·02
	Do. (North)	4·0	1·3	2·23	0·78	+ 1·45
	North-Western Provinces (Central)	3·2	1·3	1·31	0·54	+ 0·77
	Do. do. (West)	1·6	1·4	0·49	0·56	— 0·07
	Do. do. (Submontane, East)	4·8	1·2	3·95	0·57	+ 3·38
	Do. do. (Do. West)	4·1	2·5	2·49	1·46	+ 1·03
	Do. do. (Hills)	7·1	4·1	4·87	2·56	+ 2·31
Punjab	Punjab (South-East)	1·6	1·5	0·43	0·72	— 0·29
	Do. (South)	1·0	1·3	0·35	0·65	— 0·30
	Do. (Central)	2·5	2·1	0·73	1·11	— 0·38
	Do. (Submontane)	4·0	2·5	2·43	1·56	+ 0·87
	Do. (Hills)	7·0	4·2	4·51	3·36	+ 1·15
	Do. (North)	4·3	2·8	2·26	1·81	+ 0·45
	Do. (West)	1·3	1·3	0·39	0·55	— 0·10
Bombay and Malabar Coast Districts (Madras).	Malabar	0	0	0·08	0·16	— 0·08
	Travancore	1·0	...	0·67	...	...
	Madras (South Central)	1·0	0	0·88	0·12	+ 0·76
	Coorg	0·5	...	0·14	...	...
	Mysore	0·2	0·2	0·10	0·11	— 0·01
	Konkan	0	0·2	0·01	0·14	— 0·13
	Bombay Deccan	0·1	0·2	0·05	0·07	— 0·02
	Hyderabad, North*	...	...	0	...	...
	Khandesh	0·1	0·2	0·02	0·10	— 0·08
Central Provinces and Berar.	Berar	0·4	...	0·10	0·43	— 0·33
	Central Provinces (West)	0·9	0·9	0·28	0·56	— 0·28
	Do. do. (Central)	2·5	1·1	1·19	0·53	+ 0·66
	Do. do. (East)	2·6	1·1	1·13	0·49	+ 0·04
Bombay (North)	Gujarat	0	0·2	0	0·06	— 0·06
	Kathiawar and Cutch	0	0·2	0·01	0·05	— 0·04
	Sind	0	...	0·02	0·40	— 0·38
	Baluchistan Hills	1·8	...	1·22	1·67	— 0·45
Rajputana and Central India.	Central India (East)	1·6	...	0·66	0·57	+ 0·09
	Rajputana (East) and Central India (West)	0	...	0·06	0·46	— 0·40
	Do (West)	0·1	...	0·02	0·32	— 0·30
Madras	East Coast (North)	0	0	0·01	0·14	— 0·13
	Do. (do.) (a)	0	0	0	0·09	— 0·09
	Hyderabad (South)*	...	...	0	...	...
	Madras (Central)	0	0	0	0·07	— 0·07
	East Coast (Central)	0	1·0	0·09	0·39	— 0·30
	Do. (South)	0·8	1·0	0·20	0·49	— 0·29
	Madras (South)	2·0	1·0	1·18	0·61	+ 0·57

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

The above shows that actually or practically no rain was received during the month over Burma, Cachar, Eastern and Deltaic Bengal and Orissa, North Bombay, Rajputana and part of the Peninsula, but that over the remainder of the country rain was received, the average amount ranging from 0·28″ in the west of the Central Provinces, 0·21″ in the Assam Hills, and 0·20″ in the East Coast South) to 4·87″ in the Hill division of the North-Western Provinces.

The total actual rainfall of the month was less than the normal in 24 divisions, normal in 12 divisions and more than the normal in 18 divisions. The region of excessive rain included the following divisions:—

Central Bengal (+86 per cent), Chota Nagpur (+314 per cent), South Bihar (+368 per cent), North Bihar (+180 per cent), North-Western Provinces, East (+429 per cent), South Oudh (+281 per cent), North Oudh (+186 per cent), North-Western Provinces, Central

(+143 per cent), North-Western Provinces, East Submontane (+593 per cent), North-Western Provinces, West Submontane (+71 per cent), North-Western Provinces Hills (+90 per cent), Punjab Submontane (+56 per cent), Punjab Hills (+34 per cent), Punjab North (+24 per cent), Madras, South-Central (+633 per cent), Central Provinces, Central (+125 per cent), Central Provinces, East (+131 per cent), and Madras, South (+93 per cent).

The greater part of Burma was rainless during the month. The districts of Mergui and Amherst in Tenasserim and of Katha, Bhamo and Myitkyina in Upper Burma received, however, light showers, in the former district about the 4th or 5th and in the latter division between the 4th and the 9th.

There were three periods of disturbed rainy weather in Assam, very feebly marked in the case of the Surma valley and of the Hill division, but more strongly marked in the case of the Brahmaputra division. The first rainfall period extended, at least in the case of the Brahmaputra Valley, from the 2nd to the 8th; the second from the 16th to the 20th; and the third from the 26th to the 29th. In the other two divisions the rainfall occurred about the above dates, but lasted for only a short time. The following gives comparative data for the eight districts of the province:—

District.	Rainfall.			
	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch	
Cachar	0·11	0·57	—0·46	— 81
Sylhet	0·03	0·63	—0·60	— 95
Goalpara	0·02	0·71	—0·69	— 97
Kamrup	0·01	0·49	—0·48	— 98
Darrang	0·08	0·83	—0·75	— 90
Nowgong	0·02	0·51	—0·49	— 96
Sibsagar	0·69	0·96	—0·27	— 28
Lakhimpur	1·84	1·60	+0 24	+ 15

All the divisions of Bengal received rain during the month, the average actual amount ranging from 0·03″ in Deltaic Bengal, and 0·04″ in Eastern Bengal and Orissa to 3·04″ in South Bihar. Deltaic Bengal received showers between the 16th and the 18th, and again on the 29th and 30th, but the amounts were nowhere large, while East Bengal received showers on the 16th and on the 29th, the amounts being exceedingly small. North Bengal had moderately general showers on the 16th and scattered showers from that date till the close of the month. Orissa was rainless except for a few showers on the 16th and 17th. West Bengal on the contrary had frequent and heavy rain during the latter half of the month. In Bihar there were three periods of rainfall. The first was between the 15th and the 19th. The amounts were not large, only exceeding 1″ in the case of one station in the Monghyr district. The second period ran from the 22nd to the 24th, and was heavier and more general than the first fall. The following gives the falls of 2″ or more in 24 hours recorded during this period:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Shahabad	Mohanea	22nd Jan.	6·50
	Sikraul	23rd "	3·07
	Bassawan	" "	2·23
	Monaharpur	" "	2·10
	Ageaon	" "	2·00
Champaran	Bagaha	24th "	2·81
	Motihari	" "	2·15
	Ramnagar	" "	2·11

The third rainfall period lasted from the 29th to the 31st. This fall was heavier and more general than the first fall and lighter and less general than the second. The following amounts exceeding 1″ in 24 hours were recorded during this period:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sonthal Parganas	Deoghur	29th Jan.	1·75
Monghyr	Chakai Bamda	" "	1·54
	Gidhaur	" "	1·50
Patna	Hilsa	" "	1·50
Gaya	Aurungabad	" "	1·43
Sonthal Parganas	Sarwan	" "	1·37
	Barharwa	" "	1·35
Bhagalpur	Bansil	" "	1·30
Sonthal Parganas	Godda	" "	1·26
	Pakaur	" "	1·23
Bhagalpur	Banka	" "	1 15
Monghyr	Shaikhpura	" "	1·15
Gaya	Gaya	" "	1·12
Sonthal Parganas	Barkope	" "	1·12
Shahabad	Sasaram	" "	1·10
Malda	Sibganj	" "	1·06
Monghyr	Jamui	" "	1·05
Gaya	Sherghati	" "	1·04
Shahabad	Mohanea	31st "	1·20

In Chota Nagpur there was a general and moderate fall of rain between the 15th and the 19th, when the following falls exceeding 1" in 24 hours were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PALAMAU	Balumath	15th Jan.	2·10
	Husainabad	" "	1·60
RANCHI	Sirguja	" "	1·20
MANBHUM	Chas	" "	1·09
HAZARIBAGH	Ramgar	16th "	1·20
	Hazaribagh	" "	1·17
RANCHI	Lohardaga	" "	1·09
	Chainpur	18th "	1·50
PALAMAU	Mahuadand	" "	1·35
RANCHI	Ramgar	" "	1·16
PALAMAU	Balumath	" "	1·10
	Do.	19th "	2·00
	Latehar	" "	1·16
	Panki	" "	1·02

On the 22nd and 23rd there were a few light showers, and between the 29th and 31st another moderately general fall, during which the following amounts exceeding 1" in 24 hours were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
HAZARIBAGH	Barhi	29th Jan.	3·12
	Chatra	" "	2·71
	Karagdeha	" "	2·50
PALAMAU	Panki	" "	1·50
	Husainabad	" "	1·47
HAZARIBAGH	Pachamba	" "	1·12
PALAMAU	Balumath	" "	1·05
	Husainabad	30th "	1·10

In Central and West Bengal the total rainfall of the month was in considerable to large excess, but in all the remaining divisions was much below the normal. The following gives data for the nine divisions of the province :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.	Average actual, January 1900.	Average normal, January.
	Inches.	Inch.	Inches.			
Eastern Bengal	0·04	0·44	−0·40	− 91	0·1	0·9
Deltaic "	0·03	0·40	−0·37	− 93	0·1	0·8
Central "	0·80	0·43	+0·37	+ 86	1·8	0·8
North "	0·27	0·50	−0·23	− 46	0·8	1·0
Bengal Hills	0·58	0·86	−0·28	− 33	2·0	1·4
Orissa	0·04	0·35	−0·31	− 89	0·1	0·6
Chota Nagpur	2·36	0·57	+1·79	+314	4·0	1·2
South Bihar	3·04	0·65	+2·39	+368	5·7	1·2
North "	1·99	0·71	+1·28	+180	3·9	1·2

The North-Western Provinces received rain during three disturbed periods—the first running from the 15th to the 18th, the second from the 21st to the 24th, and the third from the 28th to the 31st. Of these, the first two were the more important. The rainfall of the first period accompanied the eastward movement of the first double disturbance of the month, and was heaviest and most general on the 15th, when the following amounts exceeding 1" in 24 hours were measured :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NAINI TAL	Haldwani	15th Jan.	2·54
	Naini Tal	" "	2·25
MORADABAD	Moradabad	" "	1·96
DEHRA DUN	Chakrata	" "	1·94
	Kalsi	" "	1·80
JHANSI	Pachwara	" "	1·72
DEHRA DUN	Raipur	" "	1·70
ALMORA	Almora	" "	1·66
GARHWAL	Joshimath	" "	1·62
ALMORA	Pithoragarh	" "	1·61
	Chaukuri	" "	1·60
BANDA	Pailani	" "	1·56
NAINI TAL	Ramnagar	" "	1·55
MORADABAD	Thakurdwara	" "	1·52
ALMORA	Champawat	" "	1·50
NAINI TAL	Satarganj	" "	1·50

During the second period of rainfall, which it may be noted, also accompanied the easterly movement of a double disturbance, rain fell generally over the North-Western Provinces on the 22nd, 23rd and 24th and moderately generally on the 21st. The precipitation was heaviest on the 22nd and 23rd and on and near the hills, as is shown by the following table, which gives falls exceeding 1″ during this period:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Unao	Mohan	22nd Jan.	1·53
Jaunpur	Jaunpur	" "	1·52
Dehra Dun	Chakrata	23rd "	2·11
Allahabad	Phulpur	" "	1·91
Dehra Dun	Raipur	" "	1·70
	Kalsi	" "	1·65
Gorakhpur	Deoria	" "	1·50
Garhwal	Kotdwara	24th "	3·90
Jaunpur	Mariahu	" "	3·41
Gorakhpur	Mahrajganj	" "	3·19
Azamgarh	Deogaon	" "	6·11
Bijnor	Najibabad	" "	3·01
Garhwal	Lansdowne	" "	3·00
Sultanpur	Kadipur	" "	2·98
Azamgarh	Jewanpur (Sagri)	" "	2·90
Kheri	Nighasan	" "	2·78
Ghazipur	Muhammadabad	" "	2·76
Azamgarh	Azamgarh	" "	2·75
Jaunpur	Kerakat	" "	2·56
Allahabad	Allahabad	" "	2·53
Basti	Domariaganj	" "	2·41
Allahabad	Phulpur	" "	2·24
Gorakhpur	Bansgaon	" "	2·20
Basti	Bansi	" "	2·19
Banda	Pailani	" "	2·00
Pilibhit	Amarai	" "	2·00
Bareilly	Pandhera	" "	2·00

During the third disturbed period the rainfall was much lighter than during the two preceding periods, and occurred principally as scattered local showers. The following were the only falls exceeding 1″ in 24 hours between the 28th and the 31st:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Mirzapur	Robertsganj	29th Jan.	1·10
Dehra Dun	Mussoorie	31st	1·30

The rainfall of the month was normal in the west division, but was in more or less large excess in the remaining divisions. In the East Submontane division the actual average rainfall was seven times the normal amount. The following gives comparative data for the eight divisions of the North-Western Provinces:—

Division.	Number of rainy days.		Rainfall.			
	Average actual, January 1900.	Average normal, January.	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.
			Inches.	Inches.	Inches.	
North-Western Provinces (East).	5·9	1·4	3·44	0·65	+2·79	+429
Oudh South	4·3	1·4	2·74	0·72	+2·02	+281
do. North	4·0	1·3	2·23	0·78	+1·45	+186
North-Western Provinces (Central).	3·2	1·3	1·31	0·54	+0·77	+143
North-Western Provinces (West).	1·6	1·4	0·49	0·56	—0·07	— 13
North-Western Provinces (East Submontane).	4·8	1·8	3·95	0·57	+3·38	+593
North-Western Provinces (West Submontane).	4·1	2·5	2·49	1·46	+1·03	+ 71
North-Western Provinces (Hills).	7·1	4·1	4·87	2·56	+2·31	+ 90

The Punjab received rain at about the same dates as the North-Western Provinces. There were three periods of rainfall, *viz.*, from the 15th to the 18th, the 21st to the 23rd, and the 28th and 29th; of these periods, the most important and general was that of the 21st to the 23rd.

During the first period the following falls exceeding 1″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Umballa	Naraingarh	15th Jan.	1·29
Kangra	Plach	" "	1·27
	Kulu	" "	1·25
Rawalpindi	Murree	" "	1·20
Peshawar	Nowshera	16th "	1·60

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KOHAT	Kohat	16th Jan.	1·40
PESHAWAR	Swabi	" "	1·24
RAWALPINDI	Murree	" "	1·20
KOHAT	Hangu	17th "	1·95
SIALKOT	Pasrur	" "	1·72
GURDASPUR	Dalhousie	" "	1·62
SIALKOT	Sialkot	" "	1·50
	Raya	" "	1·25
SHAHPUR	Sahiwal	" "	1·24
HOSHIARPUR	Dasuya	" "	1·22
RAWALPINDI	Murree	" "	1·20
	"	18th "	1·80
KANGRA	Nagar	" "	1·50
	Nurpur	" "	1·45
GURDASPUR	Madhopur	" "	1·35
KANGRA	Plach	" "	1·30
HOSHIARPUR	Sadr Station	" "	1·20

During the second and more important disturbed period the rainfall was very heavy on the 22nd in the submontane and north-western divisions. The following gives the falls exceeding 1″ in 24 hours during this period :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KANGRA	Kulu	21st Jan.	1·60
RAWALPINDI	Murree	" "	1·40
KANGRA	Palampur	" "	1·35
	Dharmsala	" "	1·25
GURDASPUR	Pathankot	22nd "	3·82
	Madhopur	" "	3·15
	Tibri	" "	3·00
KANGRA	Nurpur	" "	3·00
GURDASPUR	Gurdaspur	" "	2·84
KANGRA	Nagar	" "	2·50
GURDASPUR	Dalhousie	" "	2·16
KANGRA	Dera	" "	1·80
HOSHIARPUR	Hoshiarpur	" "	1·75
	Dasuya	" "	1·54
KANGRA	Dharmsala	" "	1·40
HOSHIARPUR	Sadr Station	" "	1·38
KANGRA	Kangra	22nd Jan.	1·35
GURDASPUR	Dalhousie	23rd "	1·62
HOSHIARPUR	Unao	" "	1·56
KANGRA	Palampur	" "	1·38
	Dharmsala	" "	1·35
UMBALLA	Dadupur	" "	1·30

During the last period the rainfall was light and confined to the hill and submontane divisions.

At some places in the Hissar and Ferozepore districts and at all places in the Montgomery district the month was rainless. The total rainfall of the month was less than usual, except in the North, Hill and Submontane divisions The following gives comparative data for the seven divisions of the Punjab :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.	Average actual, January 1900.	Average normal, January.
	Inches.	Inches.	Inches.			
South-East Punjab	0·43	0·72	—0·29	—40	1·6	1·5
South Punjab	0·35	0·65	—0·30	—46	1·0	1·3
Central do	0·73	1·11	—0·38	—34	2·5	2·1
Punjab, Submontane	2·43	1·56	+0·87	+56	4·0	2·5
Do. Hills	4·51	3·36	+1·15	+34	7·0	4·2
North Punjab	2·26	1·81	+0·45	+24	4·3	2·8
West do	0·39	0·55	—0·16	—29	1·3	1·3

In Baluchistan there were four periods of rainfall, *viz.*, on the 4th and 5th, on the 14th and 15th, on the 19th to 21st, and on the 27th and 28th ; of these, the first, second and fourth periods were unimportant, but during the third the precipitation was heavy and general. The following gives the falls exceeding 1″ in 24 hours on this occasion :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BALUCHISTAN	Pishin	19th Jan.	1·80
	Kuchlak	" "	1·50
	Kolepur	" "	1·40
	Do.	20th "	2·80

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Baluchistan	Shalabagh	20th Jan.	2·80
	Kachh	" "	2·40
	Killa Abdulla	" "	2·30
	Syad Hamid	" "	2·20
	Gulistan	" "	1·80
	Quetta Railway Station	" "	1·60
	Beleli	" "	1·50
	Yarookarez	" "	1·50
	Sarawan	" "	1·50
	Bostan	" "	1·40
	Mudgorge	" "	1·20
	Sangal	" "	1·20
	Do.	21st "	1·20

On the whole the rainfall of the month was somewhat below the normal for the whole province, but there were several stations at which the fall was in large excess. The following gives the more noteworthy examples:—

District.	Station.	Rainfall.			
		Actual, January 1900.	Normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Baluchistan	Kolepur	4·92	1·58	+3·34	+211
	Kachh	4·55	2·19	+2·36	+108
	Shalabagh	4·50	3·24	+1·26	+ 39
	Sangal	2·85	1·99	+0·86	+ 43
	Killa Abdulla	3·11	2·38	+0·73	+ 31
	Gulistan	2·71	2·02	+0·69	+ 34
	Syad Hamid	2·72	2·24	+0·48	+ 21

In Kashmir showery periods occurred during the first week and again during the last three days of the month, while during the middle of the month, from the 14th to the 23rd, the weather was very disturbed. The following falls exceeding 2" in 24 hours were recorded during this period:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kashmir	Sri Ranbir Singh Pora	14th Jan.	3·13
	Pattan	" "	2·45
	Sri Ranbir Singh Pora	20th "	3·72
	Pattan	" "	3·56
	Sri Ranbir Singh Pora	21st "	3·49
	Pattan	" "	2·78
	Kathua	" "	2·12
	Sri Ranbir Singh Pora	22nd "	2·01
	Ramban	" "	3·12

Actually or practically no rain fell in Rajputana during this month, though a few light unimportant showers were recorded between the 20th and the 23rd and the 26th and the 28th. In Central India rainfall conditions were slightly more favourable. Showers were received between the 12th and the 15th, between the 21st and the 24th, and between the 28th and the 31st. The showers were generally light, but amounted to 1" or more in 24 hours at the following places during the first disturbed period. This is shown below:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Rewah	Sohagpur	13th Jan.	1·31
	Ramnagar	14th "	1·05
	Sutna	" "	1·00
	Rewah	15th "	1·10

The following gives comparative data for some of the larger States and shows that in several places the fall was heavier than usual:—

State.	Rainfall.			
	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.
	Inches.	Inch.	Inches.	
Bhopal Agency	0·31	0·45	—0·14	— 31
Gwalior	0·11	0·31	—0·20	— 65
Rewah	3·10	0·92	+2·18	+237
Bundelkhand	1·04	0·60	+0·44	+73
Nagode	2·14	0·84	+1·30	+155
Maihar	2·10	0·68	+1·42	+209
Indore	0	0·28	—0·28	—100
Rutlam	0·03	0·19	—0·16	— 84

The Central Provinces obtained general showers in all the divisions between the 14th and 18th and scattered showers in the central division between the 21st and 23rd. These showers exceeded 1″ in 24 hours in the following cases :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JUBBULPORE . . .	Bijeraghogarh . .	14th Jan.	1·40
BALAGHAT . . .	Behir . . .	15th " .	2·41
SAUGOR . . .	Khurai . . .	" " .	1·74
MANDLA . . .	Dindori (Ramgarh) .	" " .	1·12
BILASPUR . . .	Mungeli . . .	18th " .	1·41
Do. . . .	Janjgir . . .	" " .	1·18
MANDLA . . .	Dindori (Ramgarh) .	" " .	1·17

Both in the central and east divisions the month's rainfall exceeded the normal. The following gives comparative data :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.	Average actual, January 1900.	Average normal, January.
	Inches.	Inch.	Inch.			
Central Provinces (West)	0·28	0·56	—0·28	—50	0·9	0·9
Do. (Central)	1·19	0·53	+0·66	+125	2·5	1·1
Do. (East)	1·13	0·49	+0·64	+131	2·6	1·1

Practically no rain fell over the Bombay Presidency, but light showers were reported between the 11th and 15th in North Kanara, Dharwar, Belgaum, Satara, Sholapur, Ahmednagar, Nasik and Khandesh and between the 20th and 28th in Sind. The following gives comparative data for the six divisions of the Presidency :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.	Average actual, January 1900.	Average normal, January.
	Inch.	Inch.	Inch.			
Konkan . .	0·01	0·14	—0·13	—93	0	0·2
Bombay Deccan .	0·05	0·07	—0·02	—29	0·1	0·2
Khandesh . .	0·02	0·10	—0·08	—80	0·1	0·2
Gujarat . .	0	0·06	—0·06	—100	0	0·2
Kathiawar and Cutch.	0·01	0·05	—0·04	—80	0	0·2
Sind . . .	0·02	0·40	—0·38	—95	0	—

In the Nizam's dominions there were a few light showers on the 14th and 15th, but at no station did the total rainfall of the month amount to as much as 0·50 inch.

Over the greater part of Madras the month was actually or practically rainless, and the only divisions in which there was any excess of rain was South and South-Central Madras. The following gives data for the eight divisions of th e Madras Presidency :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal.	Average actual, January 1900.	Average normal, January.
	Inches.	Inch.	Inch.			
Malabar . . .	0·08	0·16	—0·08	— 50	0	0
Madras (South Central)	0·88	0·12	+0·76	+633	1·0	0
Madras (East Coast, North).	0·01	0·14	—0·13	— 93	0	0
Madras (East Coast, North) (a).	0	0·09	—0·09	—100	0	0
Madras (Central) .	0	0·97	—0·07	—100	0	0
Madras (East Coast, Central).	0·09	0·39	—0·30	— 77	0	1·0
Madras (East Coast, South).	0·20	0·49	—0·29	— 55	0·8	1·0
Madras (South) . .	1·18	0·61	+0·57	+ 93	2·0	1·0

In the north and centre of the East Coast there was practically no rain though there were a few very light showers on the 17th and 20th. In the south division of the East Coast the only rainfall of the month was on the 19th and 20th, but the fall was both more general and heavier than in the central and north divisions, amounting to nearly half the normal amount. In South Madras there were two periods of rainfall—the first from the 7th to the 11th, the second on the 19th and 20th. The former was the heavier and on that occasion the following amounts exceeding 1″ in 24 hours were recorded :—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TINNEVELLY .	Tuticorin . . .	9th January .	2·52
	Arasadi . . .	" " .	2·50
	Kayalpatnam . .	" " .	1·30
	Keeranur . . .	" " .	1·05
	Do. . . .	10th " .	1·75
	Ottapidaram . .	" " .	1·50
	Tenkasi . . .	11th " .	2·45
MADURA . .	Periyakulam . .	" " .	1·60
TINNEVELLY .	Keeranur . . .	" " .	1·43
	Varttirayiruppu . .	" " .	1·25
	Kayalpatnam . .	" " .	1·19
MADURA . .	Mudukulattur . .	" " .	1·10
	Nelakkottai . .	" " .	1·16

In South-Central Madras similar conditions were recorded. Two periods of rainfall were experienced—the first between the 8th and the 10th, the second between the 18th and the 20th. In the first period the rainfall was heavy, more particularly in the Coimbatore district. The following gives the falls exceeding 2″ in 24 hours during the first period:—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
COIMBATORE	Coimbatore	8th January	5·57
	Avanashi	" "	3·60
	Mettupalaiyam	" "	2·90
	Satyamangolam	" "	2·70
	Gopichettipalayam	" "	2·57
SALEM	Yercaud	10th "	2·20

On the West Coast there was a little rain between the 8th and 11th, more particularly in Travancore, but both in Malabar and Travancore the rainfall was below the normal.

In Central Madras there was no rain.

The following gives a summary of the rainfall data of the month in the different collectorates of the Madras Presidency as published in the *Madras Gazette*:—

DISTRICT.	NUMBER OF RAINY DAYS.		RAINFALL.			
	Average actual, January 1900.	Average normal, January.	Average actual, January 1900.	Average normal, January.	Variation of actual from normal, January 1900.	Percentage variation from normal
			Inches.	Inch.	Inches.	
Ganjam	0	0	0·05	0·18	—0·13	— 72
Vizagapatam	0	0	0	0·20	—0·20	— 100
Godavari	0	0	0	0·11	—0·11	— 100
Kistna	0	0	0	0·15	—0·15	— 100
Nellore	0	1·0	0·09	0·39	—0·30	— 77
Chingleput	0	1·0	0·06	0·39	—0·33	— 85
Madras	1·0	1·0	0·33	0·89	—0·56	— 63
North Arcot	1·0	1·0	0·16	0·26	—0·10	— 38
South Arcot	1·0	1·0	0·13	0·46	—0·33	— 72
Tanjore	1·0	1·0	0·38	0·71	—0·33	— 46
Trichinopoly	1·0	1·0	0·16	0·24	—0·08	— 33
Madura	2·0	1·0	0·71	0·45	+0·26	+ 58
Tinnevelly	2·0	1·0	1·64	0·76	+0·88	+ 116
Malabar	0	0	0·16	0·17	—0·01	— 6
South Canara	0	0	0	0·15	—0·15	— 100
Salem	1·0	0	0·41	0·13	+0·28	+ 215
Coimbatore	1·0	0	1·34	0·11	+1·23	+1,118
Nilgiris	3·0	1·0	1·42	0·37	+1·05	+ 284
Cuddapah	0	0	0·01	0·14	—0·13	— 93
Anantapur	0	0	0	0·03	—0·03	— 100
Bellary	0	0	0	0·04	—0·04	— 100
Kurnool	0	0	0	0·07	—0·07	— 100

Table

Abstract of Observations taken at 8 A.M. at 221

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	I.—Burma Coast and Bay Islands.				—·004								87·9	+1·3	69·3	+2·9	78·6	+2·1	18·5					28·5
	Tenasserim and Bay Islands.	Car Nicobar	25	29·916*		29·868*	30·038	19th	29·808	1st	·230	80·8*	85·7*		79·1*		82·4*		6·6	88·0	30th	75·0	5th	13·0
		Port Blair	61	29·961	+·021	29·953	30·029	20th	29·905	8th & 26th	·124	78·6	87·2		76·3‡		81·9		10·9	90·9	31st	70·0	2nd	20·9
		Mergui	96	29·905	−·002	29·933	29·985	20th	29·845	8th	·140	76·0	88·4	+0·2	72·0	+6·2	80·2	+3·2	16·4	91·6	2 days	66·4	2nd	25·2
		Tavoy	26	29·988	−·001	29·945	30·062	20th	29·934	8th	·128	71·3	90·8	+1·5	68·4	+4·0	79·6	+2·8	22·4	95·2	22nd	59·5	1st	35·7
		Moulmein	94	29·934	−·018	29·967	30·020	20th	29·867	8th	·153	70·0	90·1	+1·8	66·3	+0·7	78·2	+1·3	23·8	94·0	2 days	60·4	2nd	33·6
2	Lower Burma	Rangoon	41	29·937	−·015	29·966	30·072	20th	29·912	8th	·160	68·4	90·8	+2·1	64·9	+1·0	77·9	+1·6	25·9	95·6	21st	59·5	5th	36·1
		Bassein	27	30·006	−·009	29·968	30·087	20th	29·917	8th	·170	67·4	87·3	+1·9	65·4	+4·4	76·4	+3·2	21·9	91·7	31st	58·8	3rd	32·9
		Diamond Island	41	29·996	+·003	29·972	30·076	20th	29·920	8th	·156	76·4	84·9	+1·0	73·4	+3·1	79·2	+2·1	11·5	88·6	23rd	67·2	7th	21·4
5	Arakan	Akyab	20	30·027	−·014	29·988	30·104	20th	29·942	7th	·162	64·8	83·1	+1·7						89·9	29th			
3	Central Burma	Toungoo	183	29·846	−·005	29·979	29·928	18th	29·764	7th	·164	62·8	85·5	+0·2	58·3	+0·7	71·9	+0·5	27·2	90·7	2 days	52·1	2nd	37·6
	II.—Burma Inland				+·029								82·0	+0·3	56·0	+3·1	69·0	+1·8	26·0					39·1
3	Central Burma	Thayetmyo	134	29·912	−·013	29·993	30·015	18th	29·798	7th	·217	64·5												
4	Upper Burma	Minbu	165	29·892	+·014	30·007	30·016	18th	29·733	7th	·283	65·0	86·0	+0·7	59·4	+4·4	72·7	+2·6	26·6	94·1	28th	53·0	3rd	41·1
		Yamethin	657	29·373	+·018	30·010	29·485	18th	29·242	7th	·243	62·3	87·7	+1·5	56·2	+3·2	72·0	+2·4	31·5	100·0	28th	52·2	22nd	47·8
		Mandalay	250	29·831	+·052	30·039	29·966	18th	29·643	7th	·323	63·4	84·6	+0·8	58·9	+3·4	71·8	+2·1	25·7	90·5	3 days	55·5	23rd	35·0
		Kindat	377	29·715	+·040	30·069	29·852	18th	29·505	7th	·347	57·7	76·0	+0·4	55·1	+2·8	65·6	+1·6	20·9	82·8	30th	51·8	9th & 15th,	31·0
		Bhamo	381	29·715	+·064	30·077	29·850	18th	29·507	7th	·343	54·3	75·7	−1·7	50·3	+1·8	63·0	+0·1	25·4	84·6	28th	44·2	13th	40·4
4 (a)	Burma Hill Stations.	Maymyo				Not	record	ed.				49·8	69·6		34·9		52·3		34·7	80·0	31st	33·0	5 days	47·0
		Taunggyi				Not	record	ed.				57·0	70·6	−2·9	44·1	+1·7	57·4	−0·6	26·5	75·2	23rd	37·1	1st	38·1
		Lashio		27·187	−·031		27·292	18th	27·066	8th	·226	51·9	77·0	+2·9	46·4	+2·4	61·7	+2·7	30·6	82·6	30th	42·0	2nd	40·6
	III.—Assam				−·004								74·4	+0·8	53·7	+1·8	64·0	+1·3	20·7					31·4
7	Surma	Silchar	104	29·990	+·007	30·052	30·117	20th	29·813	7th	·304	60·3	79·4	+2·2	54·8	+2·5	67·1	+2·4	24·6	85·4	19th & 25th	49·5	3 days	35·9
6	Brahmaputra	Sibsagar	333	29·758	−·014	30·076	29·892	18th	29·542	7th	·350	54·5	69·9	0	52·0	+2·2	61·0	+1·1	17·9	74·3	4 days	46·4	9th	27·9
		Dhubri	115	29·959	−·005	30·038	30·072	18th	29·759	7th	·313	57·3	73·8	+0·3	54·2	+0·6	64·0	+0·5	19·6	80·1	25th	49·8	2 days	30·3
	IV.—Bengal and Orissa				—·003								78·7	+1·5	57·3	+3·1	68·0	+2·3	21·4					34·5
6	East Bengal	Chittagong	87	29·970	−·013	30·009	30·083	20th	29·842	7th	·241	63·4	80·8	+3·0	58·3	+2·9	69·6	+3·0	22·5	85·9	2 days	49·1	13th	36·8
		Noakhali	43	30·015		30·007	30·132	20th	29·884	7th	·248	63·6	80·9		55·5		68·2		25·4	85·6	24th	46·0	13th	39·6
		Comilla	36	30·050		30·036	30·151	20th	29·907	7th	·244	62·0	80·8		56·6		68·7		24·2	85·4	25th & 26th.	50·1	12th & 13th.	35·3
		Sirajganj	49	30·016		30·017	30·123	20th	29·825	7th	·298	57·9	76·7		54·2		65·5		22·5	85·7	25th	48·3	12th	37·4
		Narayanganj	26	30·046	−·010	30·021	30·164	20th	29·891	7th	·273	62·4	78·8	+0·6	57·9	+2·9	68·4	+1·8	20·9	85·1	25th	50·7	14th	34·4
		Barisal	13	30·057	−·001	30·016	30·170	20th	29·907	7th	·263	64·3	80·4	+3·9	59·0	+4·0	69·8	+4·0	21·4	86·3	25th	48·7	14th	37·6
		Mymensingh	59	30·008	−·013	30·022	30·124	20th	29·833	7th	·291	58·4	74·7	+0·2	54·7	+2·3	64·7	+1·3	20·0	82·7	25th	49·7	8th	33·0
10	Deltaic Bengal	Faridpur	46	30·033		30·029	30·149	20th	29·863	7th	·286	59·8	78·3		54·8		66·4		23·5	85·8	25th	46·5	13th & 14th.	39·3
		Jessore	33	30·048	+·001	30·029	30·153	20th	29·892	7th	·261	61·0	79·0	+1·0	56·0	+2·8	67·5	+1·9	23·0	85·1	25th	45·1	14th	40·0
		Calcutta	21	30·064	−·006	30·032	30·181	20th	29·889	7th	·292	64·0	80·6	+3·7	59·2	+3·8	70·0	+3·8	21·4	86·4	25th	50·7	14th	35·7
		Saugor Island	25	30·049	−·009	30·019	30·165	20th	29·876	7th	·289	66·0	79·5	+2·9	61·9	+2·5	70·7	+2·7	17·6	83·0	18th	55·0	14th	28·0
		Krishnagar	47	30·049		30·048	30·161	20th	29·872	7th	·289	60·9	79·7		54·4		67·1		25·3	87·5	25th	45·3	13th & 14th.	42·2
		Midnapore	149	29·930		30·034	30·039	20th	29·763	7th	·276	64·6	83·5		59·7		71·6		22·8	89·3	25th	53·2	13th	36·1

* Mean of 27 days.

tions in India, Burma, etc., in January, 1900.

Wind Direction, Number of winds from N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st January 1900.	Normal rainfall for period, 1st to 31st January.	Variation from normal of period, 1st to 31st January.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																			0·37	0·35	−0·23					I.—Burma Coast and Bay Islands.		
9	20							N 31° E	4·8	4·8			77°	·815°	5·7†	1			2·60			2·60			2·48	Car Nicobar.	Tenasserim and Bay Islands.	1
9	16	1					4	N 23° E	4·8				85	·840	4·5	0			0·03	0·81	− 0·78	0·03	0·81	− 0·78	0·03	Port Blair .		
2							1	N 15° W	2·6	2·3	2·0	+15	90	·794	3·7	1			0·89	0·84	+ 0·05	0·89	0·84	+ 0·05	0·81	Mergui.		
								Calm	1·0				92	·720	0	0			0	0·25	− 0·25	0	0·25	− 0·25	0	Tavoy.		
2	18	8	1		1		1	N 55° E	1·8	2·0	2·4	−17	90	·660	0·8	0	0·09	− 0·09	0·02	0·51	− 0·49	0·02	0·51	− 0·49	0·02	Moulmein.		
7	13	1	2		4	3	1	N 22° E	3·3		4·3	−23	88	·607	0·5	1	0·27	+ 0·73	0·12	0·17	− 0·05	0·12	0·17	− 0·05	0·12	Rangoon .	Lower Burma.	2
2	5						6	N 4° W	3·7		2·9	+28	90	·613	0·5	0	0	0	0	0·17	− 0·17	0	0·17	− 0·17	0	Bassein.		
1	12	2					2	N 23° W	7·2		6·6	+ 9	79	·723	1·7	0	0·44	− 0·44	0	0·18	− 0·18	0	0·18	− 0·18	0	Diamond Island.		
5	13	3						N 27° E	2·5		2·6	− 4	90	·556	2·5	0	0·18	− 0·18	0	0·08	− 0·08	0	0·08	− 0·08	0	Akyab .	Arakan.	5
6	1							N 5° E	1·6	1·6	1·9	−16	87	·505	2·7	0	0·27	− 0·27	0	0·12	− 0·12	0	0·12	− 0·12	0	Toungoo .	Central Burma.	3
																			0·10	0·22	−0·12					II.—Burma Inland.		
6	5	9	1	2	4	4		N 50° E	3·1		2·4	+29	74	·449	?	0	0	0	0	0·02	− 0·02	0	0·02	− 0·02	0	Thayetmyo.	Central Burma.	3
2			2	1	2	3	16	N 56° W	4·8	5·7			77	·481	2·4	0			0	0	0	0	0	0	0	Minbu .	Upper Burma.	4
6			2	2			10	N 31° W	2·8	2·9			89	·500	0·9	0			0	0	0	0	0	0	0	Yamethin.		
5	4	1	2	2	2			N 51° E	2·3	2·3			91	·534	0·7	0			0	0·07	− 0·07	0	0·07	− 0·07	0	Mandalay.		
4							2	N 15° W	0·7	0·7			98	·472	0·2	0			0	0·40	− 0·40	0	0·40	− 0·40	0	Kindat.		
	3				1		2	N	1·3	1·5			87	·414	2·9	1			0·60	0·84	− 0·24	0·60	0·84	− 0·24	0·56	Bhamo.		
				2	19	5	5	S 61° W					94†	·337‡												Maymyo .	Burma Hill Stations.	4(a)
1				9	21			S 33° W					58	·272	2·4	0			0	0	0	0	0	0	0	Taunggyi.		
													91	·350	3·4	0			0	0·07	− 0·07	0	0·07	− 0·07	0	Lashio.		
																			0·57	0·86	−0·29					III.—Assam.		
		2						E	1·1	1·9	2·0	− 5	89	·474	0·5	1	1·79	− 0·79	0·59	0·72	− 0·13	0·59	0·72	− 0·13	0·59	Silchar .	Surma.	7
5	6			1				N 27° E	3·1	2·8	1·8	+55	99	·424	9·1	3	4·30	− 1·30	1·10	1·47	− 0·37	1·10	1·47	− 0·37	0·37	Sibsagar .	Brahmaputra.	9
1	6	12		1	2	1		N 79° E	3·0	3·5	3·9	−10	93	·438	4·1	0	0·93	− 0·93	0·03	0·40	− 0·37	0·03	0·40	− 0·37	0·03	Dhubri.		
																			0·24	0·44	−0·20					IV.—Bengal and Orissa.		
2	11	1	2	1			1	N 31° E	3·1	3·0	3·7	−23	86	·506	3·5	0	0·73	− 0·73	0	0·49	− 0·49	0	0·49	− 0·49	0	Chittagong .	East Bengal.	6
5	7	1	2	2	1	1	2	N 13° E	1·9	1·8			85	·508	3·7	0	0·96	− 0·96	0	0·47	− 0·47	0	0·47	− 0·47	0	Noakhali.		
4								N	2·2				78	·434	1·6§	0	1·30	− 1·30	0	0·53	− 0·53	0	0·53	− 0·53	0	Comilla.		
2		1		2	1		4	N 56° W	1·5	1·5			93	·453	3·3§	1	1·04	− 0·04	0·25	0·45	− 0·20	0·25	0·45	− 0·20	0·13	Sirajganj.		
5	8	2	1		3	1	6	N 5° E	3·1		2·1	+48	87	·495	4·7	0	0·91	− 0·91	0·01	0·24	− 0·23	0·01	0·24	− 0·23	0·01	Narayanganj.		
9	7				2		2	N 8° E	2·0	2·3		−13	85	·518	3·0§	0	1·04	− 1·04	0	0·61	− 0·61	0	0·61	− 0·61	0	Barisal.		
						1	1	N 63° W	0·1	0·1			92	·448	?	1	0·85	+ 0·15	0·24	0·39	− 0·15	0·24	0·39	− 0·15	0·10	Mymensingh.		
4								N	0·9	1·0			92	·477	2·7‡	0	0·77	− 0·77	0	0·36	− 0·36	0	0·36	− 0·36	0	Faridpur .	Deltaic Bengal.	10
1		1					1	N 10° E	1·1	1·1	1·6	−31	85	·465	2·7	0	0·88	− 0·88	0	0·55	− 0·55	0	0·55	− 0·55	0	Jessore.		
6	5	4						N 39° E	1·8		3·0	−40	84	·504	3·9	0	0·72	− 0·72	0	0·60	− 0·60	0	0·60	− 0·60	0	Calcutta.		
7	1	2	1	2	2	1		N 41° E	3·0		6·3	+27	90	·584	4·1‡	0	0·77	− 0·77	0	0·32	− 0·32	0	0·32	− 0·32	0	Saugor Island.		
4	3	4	5	1	1	4	8	N 8° W	2·7				82	·445	3·6†	0	0·73	− 0·73	0·02	0·30	− 0·28	0·02	0·30	− 0·28	0·02	Krishnagar.		
5	5	1			1		1	N 9° E	1·7	2·2			77	·475	2·4	0	0·85	− 0·85	0·07	0·52	− 0·45	0·07	0·52	− 0·45	0·07	Midnapore.		

† Mean of 30 days. ‡ Mean of 28 days. § Mean of 25 days.

Table

Abstract of Observations taken at 8 A.M. at 221

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
11	Central Bengal	Bankura	298	29·759		30·026	29·872	20th	29·586	7th	·286	61·6	80·1		58·1		69·2		22·0	85·4	2th	51·4	13th	34·0
		Raniganj	334	29·746		30·050	29·861	19th	29·573	7th	·288	60·0	79·3		56·4		67·9		22·9	85·6	25th	49·3	6th & 13th.	36·3
		Burdwan	99	29·987	−·004	30·040	30·097	20th	29·815	7th	·282	61·3	80·9	+2·4	58·1	+3·4	69·5	+2·9	22·8	87·4	25th	52·0	13th	35·4
		Naya Dumka	489	29·580		30·058	29·692	18 h	29·480	3rd	·212													
		Berhampore	67	30·017	−·006	30·036	30·124	23th	29·828	7th	·296	59·4	77·1	+0·3	55·2	?	66·2	?	21·9	84·7	25th	46·9	13th	37·8
		Rampur Boalia.	70	29·977?		30·000?	30·083	20th	29·787	7th	·296	59·3	76·1		54·4		65·3		21·7	83·7	25th	46·1	13th	37·6
		Malda	72	30·002		30·030	30·104	17th	29·786	7th	·318	56·8	74·2		51·8		63·0		22·4	81·9	25th	40·2	6th	41·7
		Bogra	61	30·012		30·029	30·128	20th	29·825	7th	·301	58·4	76·1	+0·4	54·0	+2·4	65·1	+1·4	22·1	86·2	25th	48·2	12th	38·0
12	North Bengal	Dinajpur	123	29·963	+·020	30·049	30·077	18th	29·740	7th	·337	56·5	75·5	+0·2	50·3	+1·1	62·9	+0·7	25·2	84·3	25th	42·0	8th	42·3
		Rangpur	123	29·951		30·037	30·062	18th	29·748	7th	·314	57·2	75·4		52·6		64·2		22·8	83·4	25th	46·8	8th	36·6
		Jalpaiguri	284	29·790	+·015	30·050	29·918	18th	29·581	7th	·337	55·9	72·7	−0·4	53·3	+2·6	63·0	+1·1	19·4	77·9	20th	50·1	28th	27·8
		Cooch Behar	156	29·927		30·049	30·058	18th	29·717	7th	·341	56·0	73·1		55·0		64·0		18·1	79·3	25th	50·4	14th	28·9
17	North Bihar	Purnea	125	29·976	+·022	30·065	30·092	18th	29·765	7th	·327	54·4	72·2	−2·5	51·3	+2·4	61·8	+0·5	20·9	77·2	31st	43·3	12th	33·9
14	Orissa	Balasore	46	30·040	+·001	30·035	30·161	20th	29·877	7th	·284	63·9	82·5	+2·4	59·9	+4·2	71·2	+3·3	22·6	87·4	8th	54·5	13th	32·9
		False Point.	21	30·047	−·019	30·010	30·160	20th	29·899	7th	·261	68·6	81·1	+2·3	62·7	+3·8	72·0	+3·1	18·4	84·4	8th	58·0	20th	26·4
		Cuttack	80	29·987	−·019	30·013	30·096	20th	29·843	7th	·253	67·1	87·2	+2·6	64·5	+4·6	75·9	+3·6	22·7	90·4	31st	59·1	1st	31·3
		Shortt's Island.	25	30·051		30·020	30·164	20th	29·911	7th	·253	73·7	80·0		70·4		75·2		9·6	82·2	31st	67·2	1st & 15th.	15·0
		Puri	20	30·053		30·016	30·164	20th	29·916	7th	·248	71·5	83·4		67·2		75·3		16·2	88·2	8th	63·6	19th & 20th.	24·6
	V.—Gangetic Plain and Chota Nagpur.				−·008								73·2	−0·8	52·6	+3·3	63·0	+1·3	20·6					37·7
15	Chota Nagpur	Hazaribagh.	2,007	28·009	−·004	30·057	28·121	20th	27·858	7th	·253	57·9	73·2	+0·4	53·7	+3·2	63·5	+1·8	19·5	80·2	1st & 4th.	46·9	13th	33·3
		Ranchi	2,128	27·829	?	30·057	28·009	20th	27·747	7th	·262	59·0	74·8	+1·1	54·7	+4·6	64·8	+2·9	20·1	81·0	1st	48·8	13th	32·2
		Daltonganj	730?	29·323		30·056	29·440	20th	29·191	7th	·249	56·3	75·9		50·5		63·2		25·4	86·0	1st	36·5	13th	49·5
		Purulia		29·247		30·051	29·350	18th	29·090	7th	·260	61·2	78·8		56·9		67·9		21·9	85·3	1st & 2nd.	51·3	13th	34·0
		Chaibassa	760	29·230		30·038	29·397	20th	29·132	7th	·265	61·4	82·7	+2·5	57·7	+4·2	70·2	+3·4	25·0	87·6	2nd & 8th.	51·8	1st	35·8
16	South Bihar	Gaya	375	29·702	−·004	30·055	29·812	20th	29·540	7th	·272	58·4	74·1	−1·6	52·8	?	63·4	?	21·3	81·8	2nd	44·9	2 days	36·9
		Dehri	351	29·720		30·048	29·834	20th	29·555	7th	·279	59·5	73·7		55·4		64·5		18·3	82·9	1st	46·3	13th	36·6
		Patna	183	29·896	−·015	30·043	30·003	20th	29·702	7th	·301	57·3	71·4	−1·3	53·4	+3·5	62·4	+1·1	18·0	78·0	4th	44·4	12th	33·6
		Arrah	190	29·895		30·050	30·002	20th	29·706	7th	·296	56·3	72·3		52·2		62·6		20·1	79·2	2nd	42·0	13th	37·2
		Buxar	239	29·843		30·053	29·951	20th	29·663	7th	·288	57·9	72·8		52·7		62·8		20·1	80·6	2nd	42·9	12th	37·7
17	North Bihar	Bhagalpur	160	29·924		30·046	30·039	18th	29·817	3rd	·222	59·2	73·1		53·6		63·4		19·5	80·5	4th	43·0	13th	37·5
		Darbhanga	166	29·909	−·005	30·041	30·022	18th	29·691	7th	·331	56·3	71·0	−1·2	54·0	+1·9	62·5	+0·4	17·0	76·1	31st	46·5	12th	29·6
		Muzaffarpur	178	29·904		30·049	30·015	20th	29·694	7th	·321	56·5	71·0		52·3		61·7		18·7	76·2	31st	43·5	12th	32·7
		Motihari	224	29·865?		30·061?	29·972	18th	29·658	7th	·314	57·9	70·9		49·4		60·2		21·5	76·0	4th & 21st.	39·0	11th	37·0
		Chapra	181	29·898		30·041	30·002	20th	29·697	7th	·305	55·6	71·7		52·0		61·8		19·7	79·3	4th	43·4	13th	35·9
18	N.-W. Provinces (East).	Benares	267	29·797	−·015	30·038	29·918	20th	29·647	7th	·271	56·4	72·4	−2·0	52·8	+4·8	62·6	+1·4	19·6	82·1	1st	39·9	12th & 13th.	42·2
		Allahabad	309	29·757	−·015	30·043	29·879	20th	29·619	7th	·260	55·7	72·5	−1·5	51·5	+3·8	62·0	+1·2	21·0	82·6	1st	38·9	12th	43·7
23	N.-W. Provinces (East Sub-montane).	Gorakhpur	256	29·816	+·004	30·048	29·917	21st	29·609	7th	·308	55·2	70·3	−2·9	51·7	+2·8	61·0	−0·1	18·6	76·8	4th	42·6	11th & 12th.	34·2
19	South Oudh	Lucknow	368	29·686	−·022	30·039	29·795	19th	29·538	7th	·257	53·8	72·4	−1·4	49·3	+2·9	60·9	+0·8	23·1	84·8	1st	40·1	12th & 13th.	44·7
20	North Oudh	Bahraich	403	29·651	+·004	30·044	29·764	18th	29·471	7th	·293	54·0			49·9	+3·1						39·5	8th	
21	N.-W. Provinces (Central).	Cawnpore	416	29·635	−·007	30·036	29·753	20th	29·502	7th	·251	54·3	72·0	−1·3	49·5	+2·0	60·8	+0·4	22·5	83·8	1st	37·5	12th	46·3
		Mainpuri	516	29·532	−·006	30·046	29·657	20th	29·309	8th	·348	53·5	71·2	−0·9	49·4	+2·5	60·3	+0·8	21·8	81·3	1st	40·0	11th & 12th.	41·3

* Mean of 26 days.

† Mean of 30 days.

I—*continued.*

Stations in India, Burma, etc., in January 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st January 1900.	Normal rainfall for period 1st to 31st January.	Variation from normal of period, 1st to 31st January.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
14	2	3	1				8	3	N 49° W	2·4	2·8			75	·418	3·3	1	0·96	+0·04	0·16	0·34	−0·18	0·16	0·34	−0·18	0·15	Bankura	Central Bengal.	
23	1			1			1	5	N 45° W	1·1				74	·393	3·8	2	0·96	+1·04	0·59	0·40	+0·19	0·59	0·40	+0·19	0·38	Raniganj.		
27	2	1	1						N 34° E	1·1	1·1	1·8	−39	79	·435	4·1*	0	0·77	−0·77	0·08	0·36	−0·28	0·08	0·36	−0·28	0·08	Burdwan.		
22	2	1				1	1	4	N 27° W	0·5	0·6					5·6	3	1·17	+1·83	1·61	0·60	+1·01	1·61	0·60	+1·01	0·78	Naya Dumka.		
28	1						1	1	N 45° W	0·9	0·9	1·8	−50	87	·444	3·5	2	1·04	+0·96	0·95	0·52	+0·43	0·95	0·52	+0·43	0·75	Berhampore.		
21	6	1					1	2	N 14° W	2·1	2·2			86	·438	3·3†	2	0·81	+1·19	0·79	0·41	+0·38	0·79	0·41	+0·38	0·45	Rampur Boalia.		
	5			1		2	7	16	N 54° W	1·2	1·1			90	·424	1·4*	2	0·81	+1·19	1·06	0·52	+0·54	1·06	0·52	+0·54	0·88	Malda.		
														84	·424	?	3	0·88	+2·12	0·67	0·47	+0·20	0·67	0·47	+0·20	0·30	Bogra.		
	5	4	2		2	5	5	8	N 48° W	2·8	3·2			90	·416	4·9†	0	0·88	−0·88	0·14	0·45	−0·31	0·14	0·45	−0·31	0·05	Dinajpur	North Bengal.	12
15		5	7		1		2	1	N 69° E	1·7	1·8			93	·444	?	0	0·85	−0·85	0	0·61	−0·61	0	0·61	−0·61	0	Rangpur.		
2	7	9	2	3	1	1	3	3	N 23° E	1·2	1·5			93	·415	1·9	0	0·85	−0·85	0·07	0·53	−0·46	0·07	0·53	−0·46	0·07	Jalpaiguri.		
16		7	4	3			1		N 73° E	1·0	1·0			94	·436	3·8‡	0			0	0·38	−0·38	0	0·38	−0·38	0	Cooch Behar.		
11	1	1			1	3	8	6	N 78° W	1·8	2·8	1·7	+65	94	·410	4·7	3	0·80	+2·20	0·47	0·49	−0·02	0·47	0·49	−0·02	0·16	Purnea	North Bihar.	17
4	13	2				2	1	9	N 20° W	2·5§				85	·503	4·3§	1	0·65	+0·35	0·15	0·39	−0·24	0·15	0·39	−0·24	0·15	Balasore	Orissa.	14
4	13	1	2				3	8	N 18° W	5·6	5·4	6·0	−10	82	·643	5·4‖	0	0·81	−0·81	0	0·57	−0·57	0	0·57	−0·57	0	False Point.		
20		7	3				1		N 54° E	1·4		1·4	0	84	·559	3·4¶	0	0·65	−0·65	0	0·32	−0·32	0	0·32	−0·32	0	Cuttack.		
	9	10	2			3	3	4	N 3° E	6·8	8·3			81	·672	3·3§	0			0	0·11	−0·11	0	0·11	−0·11	0	Shortt's Island,		
16	5	6	1			2		1	N 18° E	8·0	8·0			87	·671	2·3§	0	0·50	−0·50	0	0·28	−0·28	0	0·28	−0·28	0	Puri.		
																				2·43	0·71	+1·81					**V.—Gangetic Plain and Chota Nagpur.**		
4	2		2	4	7	1	6	5	S 45° W	8·0	7·0	4·9	+43	67	·328	7·8	5	1·38	+3·62	3·43	0·56	+2·87	3·43	0·56	+2·87	1·17	Hazaribagh	Chota Nagpur.	15
8	3	2	2	4	1		2	9	N 16° W	4·4	5·2			72	·366	6·5	5	1·28	+3·72	1·77	0·52	+1·25	1·77	0·52	+1·25	0·63	Ranchi.		
9	2	2	4	11	1	1	1		S 63° E	2·2	2·7			86	·416	3·9‡	7	1·52	+5·48	3·58	0·72	+2·86	3·58	0·72	+2·86	0·88	Daltonganj.		
23		1	2					5	N 14° W	0·9	1·1			72	·393	2·7	2			0·69			0·69			0·51	Purulia.		
23	2	2	1			2	1		N	0·9	0·8			78	·427	3·3	1	1·35	−0·35	0·31	0·58	−0·27	0·31	0·58	−0·27	0·24	Chaibassa.		
7		6	2	2	4	6	4		S 11° W	6·4¶	5·8¶	1·6	+263	82	·408	4·6	4	1·31	+2·69	2·05	0·58	+1·47	2·05	0·58	+1·47	1·12	Gaya	South Bihar.	16
2	1	2	3	3	8	8	4		S 13° W	4·7	5·4			72	·377	5·7	4	0·12	+3·88	1·71	0·62	+1·09	1·71	0·62	+1·09	0·87	Dehri.		
1	1	4	5	4	2	5	6	3	S 27° W	3·0	3·6	2·0	+80	83	·405	4·7	6	1·23	+4·77	3·50	0·65	+2·85	3·50	0·65	+2·85	0·84	Patna.		
4	1	3	7	3		4	9		S 27° W	1·8	1·8			85	·396	3·8‡	6	1·50	+4·50	3·80	0·73	+3·07	3·80	0·73	+3·07	1·49	Arrah.		
1			7	4	2	2	15		S 49° W	4·8	4·4			76	·375	4·9§	7	1·62	+5·38	2·96	0·72	+2·24	2·96	0·72	+2·24	0·92	Buxar.		
7	2	2	1	3	4	7	2	3	S 40° W	2·4	2·2			81	·417	5·7‡	5	1·12	+3·88	2·35	0·48	+1·87	2·35	0·48	+1·87	0·95	Bhagalpur	North Bihar.	17
2	3	2	4	3	3	4	7	3	S 76° W	2·7		2·3	+17	91	·418	3·4§	3	1·24	+1·76	1·34	0·66	+0·68	1·34	0·66	+0·68	0·62	Darbhanga.		
29			1				1		Calm	1·2	1·1			92	·423	2·9*	4	1·36	+2·64	1·61	0·84	+0·77	1·61	0·84	+0·77	0·65	Muzaffarpur.		
	1	4	10	5	2	2	7		S 69° E	2·8				94	·453	2·1§	4	1·35	+2·65	3·42	0·71	+2·71	3·42	0·71	+2·71	2·15	Motihari.		
9			5	2	1	7	5	2	S 40° W	2·2	2·7			86	·391	3·1‡	5	1·46	+3·54	3·57	0·68	+2·89	3·57	0·68	+2·89	1·42	Chapra.		
17		2	7	1		1	3		E	2·2	2·5	2·9	−14	83	·384	6·3	4	1·55		1·55	0·79	+0·76	1·55	0·79	+0·76	0·48	Benares	N.-W. Provinces (East).	18
4		5	10			3	6	3	N 43° E	5·3	6·0	3·4	+76	83	·375	5·7	7	2·09	+4·91	4·96	0·85	+4·11	4·96	0·85	+4·11	2·79	Allahabad.		
1	1	5	7	1		1	12	3	N 35° W	1·3		1·7	−24	85	·369	4·9	6	1·18	+4·82	3·95	0·84	+3·11	3·95	0·84	+3·11	2·39	Gorakhpur	N.-W. Provinces (East Submontane).	23
6		1	8		2		13	1	S 83° W	2·5	2·7	2·4	+13	79	·233	7·0	4	1·64	+2·36	2·51	1·10	+1·41	2·51	1·10	+1·41	1·48	Lucknow	South Oudh.	19
6	6		10		3		5	1	N 50° E	2·5	2·4			82	·357	3·5	4			1·55	0·86	+0·69	1·55	0·86	+0·69	0·67	Bahraich	North Oudh.	
23			2	1			2	3	N 45° W	1·5				77	·332	5·0	3	1·40	+1·60	1·64	0·72	+0·92	1·64	0·72	+0·92	0·78	Cawnpore	N.-W. Provinces (Central).	20
12	1		3	1	3		9	2	S 82° W	2·3	2·3			71	·302	7·1	3			1·18	0·61	+0·57	1·18	0·61	+0·57	0·53	Mainpuri.		

‡ Mean of 29 days. § Mean of 28 days. ‖ Mean of 19 days. ¶ Mean of 25 days.

Tabl

Abstract of Observations taken at 8 A.M. at 22

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	VI.—Upper Sub-Himalayas				−·012								67·1	−1·1	44·3	+0·6	55·7	−0·2	22·7					40·
24	N.-W. Provinces (West Submontane).	Bareilly	568	29·463	−·018	30·037	29·590	19th	29·302	7th	·288	52·1	69·9	−0·4	49·4	+3·3	59·7	+1·5	20·5	79·3	1st	38·7	12th	40·
		Dehra Dun	2,233	27·745	−·023	30·062	27·896	19th	27·566	8th	·330	48·2	65·4	−0·2	45·5	+0·8	55·5	+0·3	19·9	73·5	2nd	33·0	9th & 10th.	35·
		Roorkee	887	29·127	−·017	30·050	29·278	19th	28·950	8th	·328	48·8	69·5	0	45·3	+1·0	57·4	+0·5	24·2	77·3	1st & 2nd.	34·8	8th	42·
22	N.-W. P. (West)	Meerut	738	29·290	−·017	30·053	29·447	19th	29·131	8th	·316	49·5	69·8	−0·3	46·7	+2·1	58·3	+0·9	23·1	79·0	1st	38·2	9th	40·
26	South-East Punjab.	Delhi	718	29·312	−·024	30·049	29·478	19th	29·152	8th	·326	50·9	68·5	−2·5	47·9	−0·1	58·2	−1·3	20·6	78·2	1st & 2nd,	42·2	9th	36·
28	Central Punjab.	Lahore	702	29·333	−·017	30·074	29·546	18th	29·148	8th	·398	43·6	67·0	−0·4	41·4	0	54·2	−0·2	25·6	75·2	1st	34·0	3 days	41·
27	South Punjab	Sirsa	662	29·385	−·011	30·073	29·564	18th	29·195	14th	·369	45·3	68·7	−2·2	41·2	−1·3	55·0	−1·8	27·5	78·2	1st	33·5	26th	44·
		Patiala	18	29·209		30·060	29·368	19th	29·047	8th	·321	48·3	66·3		44·8		55·6		21·5	75·8	1st & 2nd.	37·0	8th & 9th.	38·
29	Punjab (Submontane).	Ludhiana	812	29·210	−·019	30·059	29·410	18th	29·035	8th	·375	47·3	65·5	−2·1	44·8	+1·1	55·2	−0·5	20·7	74·1	1st	36·6	8th	37·
		Sialkot	830	29·202	+·002	30·075	29·395	18th	29·011	8th	·384	46·4	65·1	−1·5	42·7	−0·1	53·9	−0·8	22·4	77·5	1st	35·0	4th	42
		Umballa	892	29·120	+·001	30·047	29·297	19th	28·956	8th	·341	48·0	67·3	−0·7	43·9	−0·3	55·6	−0·5	23·4	77·0	1st & 31st.	34·0	12th	43·
31	North Punjab	Rawalpindi	1,676	28·338	+·010	30·128	28·544	18th	28·127	8th	·417	41·2	61·6	−1·7	38·5	+0·6	50·1	−0·6	23·1	71·5	1st	31·9	8th	39·
	VII.—Indus Valley and North-West Rajputana.				+·002								69·2	−2·7	43·1	−2·6	56·2	−2·7	26·1					44·
31	North Punjab	Peshawar	1,110	28·956	−·018	30·148	29·197	18th	28·722	8th	·475	41·4	61·3	−2·6	38·5	−0·9	49·9	−1·8	22·8	70·8	1st	30·9	24th	39·
32	West Punjab	Khushab	612	29·450	+·004	30·094	29·677	18th	29·235	8th	·442	43·7	66·5	−0·8	39·4	−2·8	53·0	−1·8	27·1	76·2	12th	33·0	24th	43·
		Montgomery	558	29·501	−·011	30·079	29·718	18th	29·313	8th	·405	44·2	66·7	−1·2	38·5	−4·4	52·6	−2·8	28·2	73·5	1st & 29th.	31·0	25th	42·
		D. I. Khan	594	29·503	−·010	30·100	29·767	18th	29·271	8th	·496	43·5	66·4	−3·2	38·9	−2·4	52·7	−2·8	27·5	74·8	1st	34·0	13th & 26th.	40·
		Mooltan	420	29·666	−·015	30·096	29·916	18th	29·441	8th	·475	44·3	67·5	−2·3	40·9	−1·8	54·2	−2·1	26·6	75·8	1st	34·0	24th	41·
47	Sind	Jacobabad	186	29·931	+·021	30·096	30·158	18th	29·689	8th	·469	46·3	70·7	−2·6	41·2	−1·9	56·0	−2·3	29·5	81·4	1st	34·0	26th	47
		Hyderabad	96	30·024	+·017	30·081	30·201	19th	29·785	8th	·416	52·1	72·0	−4·5	47·2	−4·0	59·6	−4·3	24·8	80·5	1st	36·0	24th	44
		Kurrachee	30	30·103	+·029	30·086	30·259	19th	29·891	8th	·368	56·5	75·2	−3·1	52·1	−3·2	63·6	−3·2	23·1	82·9	1st	40·1	18th	42
51	West Rajputana	Bikaner	771	29·280	+·001	30·081	29·460	18th	29·115	8th	·345	49·7	68·1	−3·7	45·3	−2·1	57·0	−2·9	22·3	79·1	1st	36·1	23rd	43
		Pachpadra	380	29·697		30·069	29·881	19th	29·524	8th	·357	48·3	74·7		42·8		58·8		31·9	85·4	1st	26·6	24th	58
		Jodhpur	782	29·259		30·081	29·454	19th	29·090	8th	·364	52·3	72·4		48·9		60·7		23·5	83·1	1st	40·1	17th	43
	VIII.—East Rajputana, Central India, and Gujarat.				−·010								76·9	1·8	51·2	−0·4	64·1	−1·1	25·6					45
50	East Rajputana	Jaipur	1,431	28·600	−·018	30·088	28·747	19th	28·454	8th	·293	51·3	72·4	−1·3	47·8	−0·6	60·1	−1·0	24·6	81·7	1st	33·0	24th	48
		Kotah	819	29·214			29·381	19th	29·072	8th	·309	56·2	77·0		52·3		64·7		24·7	85·5	14th	46·0	18th & 25th.	39
		Sambhar	1,254	28·782	−·003	30·094	28·939	19th	28·638	8th	·301	47·4	70·8	−1·6	45·1	−1·0	58·0	−1·3	25·7	80·4	2nd	33·5	24th	46
		Ajmer	1,611	28·419	?	30·109	28·582	19th	28·269	8th	·313	48·5	71·0	−3·0	45·0	+0·1	58·1	−1·5	26·0	81·4	14th	38·9	24th	47
		Udaipur	1,925	28·098		30·084	28·245	19th	27·956	8th	·289	54·9	73·5		49·8		61·7		23·7	83·5	1st & 14th.	40·2	24th	42
		Deesa	466	29·587	−·011	30·040	29·742	18th	29·432	8th	·310	57·0	80·2	−2·5	51·9	+0·5	66·1	−1·0	28·3	89·1	13th	41·0	24th	48
46	Kathiawar and Cutch.	Bhuj	395	29·688	−·003	30·062	29·838	18th	29·536	8th	·302	57·8	76·9	−3·2	51·7	−3·1	64·3	−3·2	25·2	86·3	6th	40·5	24th	45
		Jamnagar	61	30·034		30·041	30·182	18th	29·923	8th	·259	58·5	77·1		52·8		65·0		24·3	84·5	6th	43·2	24th	41
		Rajkot	429	29·629	+·001	30·037	29·749	18th	29·498	8th	·251	57·4	80·9	−3·3	49·2	−2·0	65·1	−2·7	31·7	89·9	6th & 13th.	40·1	3 days	49
		Veraval		30·039	+·001	29·999	30·177	18th	29·928	8th	·249	62·2	80·7	−0·9	57·5	−1·6	69·1	−1·3	23·2	88·2	13th	48·3	23rd & 24th.	38
		Bhavnagar Para.	35	30·025	−·012	30·008	30·156	18th	29·892	8th	·264	59·2	83·8	+1·2	52·3	−5·1	68·1	−2·0	31·5	92·6	13th	41·7	24th & 25th.	50
49	Central India	Nowgong	757	29·290	−·029	30·059	29·413	19th	29·174	8th	·239	53·4	70·7	−4·6	49·4	+2·5	60·1	−1·1	21·3	83·0	1st	37·0	11th	46
		Indore	1,823	28·192	−·008	30·053	28·305	19th	28·051	8th	·254	57·5			49·7	−0·6						36·1	25th	
		Neemuch	1,630	28·409	−·013	30·089	28·545	19th	28·265	8th	·280	54·9	76·0	−1·4	49·4	+0·5	62·8	−0·5	26·6	85·5	14th	38·6	17th	46
45	Gujarat	Surat	39	30·011	−·013	29·993	30·131	18th	29·892	8th	·239	62·2	86·7	+0·4	56·7	+0·3	71·7	+0·4	30·0	94·7	5th	47·2	25th	47
		Ahmedabad*	164	29·914	+·003	30·035	30·057	18th	29·769	8th	·288	62·2	83·5	−0·7	55·7	−2·1	69·6	−1·4	27·8	90·7	13th	42·2	25th	41

* Mean of 30 days.

—continued.

tations in India, Burma, etc., in January, 1900—continued.

Wind Direction. Number of winds from: Calms.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st January 1900.	Normal rainfall for period, 1st to 31st January.	Variation from normal of period, 1st to 31st January.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				1·89	1·67	+0·21					VI.—Upper Sub-Himalayas.		
8			4	2		2		4	E	2·2	2.1	2·8	− 25	77	·301	6·6	4	2·36	+ 1·64	3·36	1·10	+2·26	3·36	1·10	+ 2·26	1·48	Bareilly .	N.-W. Provinces (West, Sub-Montane).	24
7		3	3		2	5		1	S 18° E	1·4		1·8	− 22	71	·237	6·2	5	3·73	+ 1·27	4 58	2·54	+2·04	4·58	2·54	+ 2·04	1·66	Dehra Dun.		
8				4	1		2	6	N 82° W	3·3	3·0	2·2	+ 50	74	·260	5·0	4	2·75	+ 1·27	1·61	1·76	−0·15	1·61	1·76	− 0·15	0·47	Roorkee.		
6			1	2		4	8		S 63° W	2·6	3·7	2·1	+ 43	74	·268	5·4	2	2·45	− 0·45	0·39	1·27	−0·88	0·39	1·27	− 0·88	0·26	Meerut. .	N.-W. P. (West).	22
4			2	5		1	12	7	N 87° W	4·0		3·0	+ 23	58	·218	5·0	3	1·82	+ 1·18	0·84	1·24	−0·40	0·84	1·24	− 0·40	0·33	Delhi . .	South-East Punjab.	26
5			1	4	1		3	2	S 15° W	2·2	4·6	1·9	+ 16	77	·224	3·6	2	2·00	0	0·45	1·06	−0·61	0·45	1·06	− 0·61	0·31	Lahore .	Central Punjab	28
		4		7		9		11	S 84° W	3·9		2·6	+ 77	61	·182	2·6	0	1·36	− 1·36	0	0·90	−0·90	0	0·90	− 0·90	0	Sirsa .	South Punjab.	27
9	6	2	3	3	1			7	N 10° E	5·2	2·8			76	·263	4·6	4			2·08			2 08			1·26	Patiala.		
9	1			1	4		8	2	S 75° W	3·1		1·1	+155	73	·243	4·6	2	3·00	− 1·00	1·33	1·97	−0·64	1·33	1·97	− 0·64	0·67	Ludhiana .	Punjab (Sub-Montane).	29
9	1	3	4	1		1	1	1	N 61° E	1·2		1·4	− 14	70	·223	3·7	3	2·36	+ 0·64	2·37	2·49	−0·12	2 37	2·49	− 0·12	1·50	Sialkot.		
4		1	1	5				10	N 24° W	2·6	2·8			78	·261	4·6	6			2·17	1·15	+1·02	2·17	1·15	+ 1·02	0·74	Umballa.		
7	3	1					4	6	N 43° W	3·0		1·9	+ 47	73	·193	2·7	6	4·00	+2·00	3·49	2·84	+0·65	3·49	2·84	+ 0·65	0·86	Rawalpindi .	North Punjab.	31
																				0·30	0·55	−0·26					VII.—Indus Valley and North-West Rajputana.		
2				1	5	2	1		S 14° W	1 8	2·0	2·5	− 20	72	·184	4·6	5	2·73	+ 2·27	1·57	1·77	−0·20	1·57	1·77	− 0·20	0·70	Peshawar .	North Punjab	31
6	1	1				2	1	1	N 67° W	3·9	4·5			56	·162	2·6	3	1·30	+ 1·70	0·71	0·52	+0·19	0·71	0·52	+ 0·19	0·35	Khushab .	West Punjab	32
5	6	3	3	1	1	1	4	7	N 20° W	4·7	4·4			57	·168	3·7	0	0·90	− 0·90	0·01	0·56	−0·57	0·01	0·58	− 0·57	0·01	Montgomery.		
5	1	1					4	9	N 50° W	2·1	2·2	1·4	+ 57	67	·188	3·5	3	1·45	+ 1·55	0·58	0·53	+0·05	0·58	0·53	+ 0·05	0 58	D. I. Khan.		
5	3	12		1					N 40° E	1·3	1·6	1·7	− 6	66	·195	2·9	1	1·27	− 0·27	0·21	0·48	−0·27	0·21	0·48	− 0·27	0·18	Mooltan.		
8	2			2			1	8	N 40° W	2·9	3·0	2·1	+ 43	51	·162	4·2	0	0 73	− 0·73	0·08	0·25	−0·17	0·08	0·25	−0·17	0·08	Jacobabad .	Sind.	47
5	10							6	N 17° W	6·3	6·5	7·2	− 10	38	·151	3·5	0	0·90	− 0 90	0	0·31	−0·31	0	0·31	−0·31	0	Hyderabad.		
2	4	12	7	2				4	N 46° E	5·5	6·9	10·0	− 31	40	·186	2·4	0	1·18	− 1·18	0	0·72	−0·72	0	0·72	−0 72	0	Kurrachee.		
4	7	5	3		2	2	5	3	N 13° W	4·6		2·9	+ 59	52	·193	3·2	1			0·10	0·30	−0·20	0·10	0·30	− 0·20	0·10	Bikaner .	West Rajputana	5
4	5	7	6	4	1		2	2	N 54° E	4·8	5·5	2·8	+ 96	46	·161	3·5	0			0	0·37	−0·37	0	0·37	− 0·37	0	Pachpadra.		
7	8	14	1					1	N 25° E	6·2	5·6			37	·145	4·5	0			0·03	0·27	−0·24	0·03	0·27	− 0·24	0·03	Jodhpur.		
																				0·16	0·30	−0·10					VIII.—East Rajputana Central India and Gujarat		
5	7	6	2				2	9	N 7° W	3·5		3·9	− 10	53	·207	4·6	0	1·60	− 1·60	0·04	0·69	−0·65	0·04	0·69	− 0·65	0 04	Jaipur .	East Rajputana.	50
1	1	2	3	4			5	5	N 38° W	2·9	3·4			42	·198	2·6	0			0	0·15	−0·15	0	0·15	−0·15	0	Kotah.		
3	6	5	2	2	1			2	N 19° W	3·8		4·5	− 16	52	·178	4·0	0	1·10	− 1·10	0·02	0·47	−0·45	0·02	0·47	− 0·45	0·02	Sambhar.		
5	6	8						1	N 22° E	2·7		1·9	+ 42	63	·220	3·4	1	1·45	− 0·45	0·12	0·52	−0·40	0·12	0·52	− 0·40	0·10	Ajmer.		
2	2	1		1				3	N 10° W	2·8	2·8			36	·161	2·5	0			0			0			0	Udaipur.		
7	1	16	8	1	1		2		N 59° E	10·3		8·6	+ 20	61	·137	2·6	0	0·36	− 0·36	0	0·17	− 0·17	0	0·17	− 0·17	0	Deesa.		
8	8	3	3	1			8	8	N 27° W	9·6		6·0	+ 60	66	·324	4·0	0			0	0·11	−0·11	0	0·11	− 0·11	0	Bhuj . .	Kathiawar and Cutch.	46
3	3	11	4		2	4	2	5	N 20° E	0·5	0·5			47	·242	1·3	0			0			0			0	Jamnagar.		
8	12	2	4		1		2		N 15° E	6·1	6·0	5·2	+ 15	36	·177	1·2	0	0·20	− 0·20	0	0·04	− 0·04	0	0·04	− 0·04	0	Rajkot.		
7	14	14	1					2	N 21° E	6·4	7·6			45	·260	2·0	0			0·01	0	+ 0·01	0·01	0	+ 0·01	0	Veraval.		
8	3		1			3	15	9	N 72° W	5·9	6·1			32	·169	2·0	0			0			0			0	Bhavnagar Para.		
8	8	3	3		1	4	6	2	N 34° W	2·0	2·0	1·4	+ 43	78	·339	6·5	4	1·73	+ 2·27	1·17	0·65	+0·52	1·17	0·65	+ 0·52	0·42	Nowgong .	Central India.	49
5	5	3		1		1	4		S 21° W	3·2		2·5	+ 28	45	·223	2·9	0	0·36	− 0·36	0	0·18	−0·18	0	0·18	− 0·18	0	Indore.		
1	1	22	1	1		1			N 48° E	6·9	6·2	8·1	− 23	45	·201	2·5	0	0·45	−0·45	0	0·30	− 0·30	0	0·30	− 0·30	0	Neemuch.		
6	6	15		3	2			3	N 36° E	4·4	7·2	5·2	+ 38	51	·303	1·2	0	0·18	−0·18	0	0·05	− 0·05	0	0·05	− 0·05	0	Surat . .	Gujarat.	45
7	7	13	2			2		6	N 16° E	3·1				36	·206	1·7	0			0	0·03	− 0·03	0	0 03	− 0·03	0	Ahmedabad*		

Tab

Abstract of Observations taken at 8 A.M. at 22

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
22	N.-W. P. (West)	Agra	555	29·497	−·022	30·054	29·634	19th	29·358	8th	·276	53·3	72·1	−1·4	50·8	+2·3	61·5	+0·5	21·3	83·0	1st	44·4	12th	38
21	N.-W.P. (Central)	Jhansi	858	29·195	−·018?	30·062?	29·320	20th	29·065	8th	·255	57·6	73·3	−2·7	53·8	+3·2	63·6	+0·3	19·5	85·2	1st & 3rd	47·7	12th	3
	[X.—Deccan				−·015								86·9	+3·7	59·4	+4·1	73·2	+3·9	27·4					41
38	Bombay Deccan	Belgaum	2,539	27·466	−·003	29·979	27·531	6th	27·361	8th	·170	67·2	85·3	+2·2	58·0	+0·6	71·7	+2·4	27·3	88·8	27th	49·9	17th	38
		Sholapur	1,590	28·427	−·019	30·004	28·494	6th	28·295	8th	·199	69·3	91·1	+3·8	62·5	+4·8	76·8	+4·3	28·6	96·2	29th	55·6	17th	40
		Poona	1,840	28·181	−·012	30·039	28·250	6th	28·065	8th	·185	60·9	89·2	+4·1	55·2	+0·2	72·2	+2·2	34·0	93·5	27th	48·0	24th	45
		Bijapur	1,946	28·067	+·009	30·016	28·150	6th	27·983	8th	·167	69·5	90·2	+4·9	62·2	+2·9	76·2	+3·9	28·0	93·2	28th	56·6	2nd	36
40	Khandesh	Malegaon	1,430	28·589	−·019	30·036	28·682	19th	28·451	8th	·231	61·4	88·6	+3·5	52·5	+0·5	70·5	+2·0	36·1	94·4	6th & 28th.	40·3	17th	53
		Ahmednagar	2,152	27·883	+·004	30·039	27·956	20th	27·765	8th	·191	64·6	86·9	+2·8	54·0	+3·0	70·5	+2·9	32·9	91·9	28th	48·4	5 days	43
41	Berar	Akola	930	29·088	−·025	30·007	29·170	20th	28·958	8th	·212	64·6	90·8	+6·4	58·2	+4·9	74·5	+5·7	32·6	95·9	6th	46·2	25th	49
		Amraoti	1,215	28·802	P	30·009	28·906	20th	28·637	8th	·219	67·8	89·8	+5·6	62·6	+5·3	76·2	+5·5	27·2	94·2	3 days	52·9	25th	41
42	Central Provinces (West).	Khandwa	1,044	28·988	−·010	30·037	29·088	18th	28·839	8th	·249	61·5	86·5	+3·1	54·9	+3·0	70·7	+3·1	31·6	93·2	14th & 30th.	38·2	25th	53
		Hoshangabad	1,006	29·038	−·001	30·055	29·145	19th	28·882	8th	·263	59·2	81·8	+1·6	54·1	+1·7	68·0	+1·7	27·7	90·7	31st	41·2	25th	49
		Nagpur	1,025	28·991	−·031	30·008	29·100	20th	28·862	8th	·238	66·5	89·1	+6·1	61·8	+6·4	75·5	+6·3	27·3	95·1	29th	52·2	25th	42
43	Central Provinces (Central)	Chanda	634	29·403	P	30·007	29·496	20th	29·285	8th	·211	67·4	91·0	+6·1	62·4	+7·8	76·7	+7·0	28·6	95·7	29th	52·7	2nd	41
		Seoni	2,033	27·979	−·022	30·025	28·079	20th	27·851	8th	·228	62·7	82·6	+3·6	56·5	+5·2	69·6	+4·4	26·1	89·8	1st	47·5	3 days	42
		Jubbulpore	1,327	28·676	P	30·028	28·798	20th	28·539	8th	·259	57·6	78·9	+1·7	53·8	+5·5	66·4	+3·6	25·1	85·9	6th	44·4	12th	4
		Saugor	1,807	28·211	−·020	30·057	28·322	20th	28·076	8th	·246	57·3	77·2	+0·6	53·2	+1·8	65·2	+1·2	24·0	88·3	13th	42·6	25th	4
49	Central India	Sutna	1,040	28·988	−·026	30·052	29·107	20th	28·876	8th	·231	55·6	72·3	−2·3	52·1	+4·8	62·2	+1·3	20·2	83·4	1st	38·1	12th	4
44	Central Provinces (East).	Raipur	970	29·053	−·026	30·013	29·160	20th	28·936	8th	·224	65·5	86·4	+5·4	61·3	+6·1	73·9	+5·8	25·1	91·3	1st	56·8	13th	3
		Sambalpur	486	29·560	−·026	30·016	29·682	20th	29·442	7th	·240	65·9	86·3	+4·3	62·2	+7·2	74·2	+5·8	24·1	90·6	29th	52·2	1st & 2nd	3
39	Hyderabad (North).	Indur				Not	record	ed.				69·7	89·2		61·1		75·2		28·1	92·8	29th & 31st.	52·1	3rd	4
		Bidar	2,165	27·855	P	29·981?	27·927	20th	27·786	9th	·141	73·2	88·2		63·0		75·7		25·2	92·3	27th	59·2	17th	3
53	Hyderabad (South).	Gulbarga	1,503	28·544	P	30·030?	28·616	20th	28·464	8th	·152	70·2	91·3		64·3		77·8		27·0	94·3	27th	56·8	8th	3
		Raichur	1,309	28·712	+·002	29·997	28·771	21st	28·625	8th	·146	71·9	90·3	+3·6	66·9	+3·2	78·6	+3·4	23·4	93·1	3 days	60·2	3rd	3
		Hyderabad (Dn.)	1,690	28·334	P	30·015	28·419	20th	28·205	8th	·214	67·9	89·2	+5·1	63·1	+5·2	76·2	+5·2	26·1	92·4	8th	55·8	4th	3
		Secunderabad	1,787	28·231	−·024	30·013	28·315	20th	28·112	8th	·203	66·7	89·6	+5·5	63·2	+5·3	76·4	+5·4	26·4	94·1	8th	56·7	1st	3
		Hanamconda		29·151			29·258	20th	29·007	8th	·251	71·7	89·8		66·3		78·1		23·5	95·0	8th	60·2	1st & 2nd	3
	X.—West Coast				0								84·8	−1·5	69·0	+0·3	76·9	−0·6	15·8					2
37	Konkan	Bombay	37	30·005	+·005	29·983	30·097	18th	29·898	8th	·199	70·1	81·3	−1·0	67·3	−0·6	74·3	−0·8	14·0	87·0	12th	61·0	25th	2
		Ratnagiri	110	29·907	+·003	29·958	29·978	16th	29·806	8th	·172	70·7	83·8	−3·6	66·1	0	75·0	−1·8	17·7	83·4	4th	60·0	18th	2
		Mormugao	60	29·953	−·006	29·949	30·021	24th	29·867	8th	·154	70·8	88·7	−3·3	69·4	+0·2	76·6	−1·1	14·3	87·5	21st	65·8	2nd & 18th.	2
		Goa	199	29·813	−·009	29·954	29·878	17th	29·719	8th	·159	71·2	81·8	−5·4	67·5	−0·5	74·7	−3·0	14·3	86·0	21st	62·0	18th	2
		Karwar	44	29·981	+·004	29·958	30·047	16th	29·885	8th	·162	67·2	84·6	−1·9	64·7	−1·1	74·7	−1·5	19·9	91·8	21st	59·5	4 days	3
33	Malabar	Cochin	10	30·000	+·004	29·938	30·049	5th	29·933	8th	·116	75·6	90·0	+1·4	72·7	+1·4	81·4	+1·4	17·3	93·0	21st	66·8	2nd	2
		Calicut	27	29·983	−·011	29·938	30·033	18th	29·909	8th	·124	75·4	87·3	−0·2	70·4	+1·2	78·9	+0·5	16·9	89·3	22nd & 23rd.	63·5	1st & 2nd	2
		Mangalore	65	29·956	−·002	29·954	30·018	16th	29·868	8th	·150	74·5	86·2	−1·6	70·3	+1·1	78·3	−0·3	15·9	91·3	22nd	64·0	2nd	2
		Trivandrum	198	29·793	+·016	29·925	29·846	6th	29·726	26th	·120	75·8	84·1	+0·7	72·3	+1·1	78·2	+0·9	11·8	86·5	22nd	66·0	1st	2
	XI.—South India				−·002								87·3	+2·9	66·3	+2·3	76·8	+2·6	21·1					3
57	Madras (South)	Pamban	37	29·998		29·962	30·042	16th	29·921	28th	·121	77·2	83·4		72·2		77·8		11·2	85·3	17th & 28th.	71·2	4 days	1
		Tinnevelly	168	29·877	+·006	29·978	29·924	21st	29·781	8th	·140	76·2	89·8	+1·9	72·5	+0·7	81·2	+1·3	17·3	94·2	31st	66·9	1st	2
		Madura	447	29·585	+·004	29·977	29·630	20th & 21st.	29·500	8th	·130	75·6	89·5	+1·6	69·6	+1·1	79·5	+1·4	19·9	93·8	8th	63·2	1st	3
		Periyakulam		29·098			29·141	20th	29·008	8th	·133	71·9	89·7*		64·1		77·1*		12·6	94·1	8th	52·1	1st	4

* Mean of 30 days.

I—*continued.*

Stations in India, Burma, etc., in January, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	No rmal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st January 1900.	Normal rainfall for period, 1st to 31st January.	Variation from normal of period, 1st to 31st January.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
2		5		7		3		14	N 29° W	4·4	4·1	3·5	+ 17	66	·278	3·9	2	1·27	+0·73	0·56	0·53	+0·03	0·56	0·53	+0·03	0·36	Agra	N.-W. P. (West).	22
12		3	3		1	3	5	4	N 68° W	2·6		2·2	+ 18	53	·256	2·5	2	1·18	+0·82	1·00	0·59	+0·41	1·00	0·59	+0·41	0·47	Jhansi	N.-W.P. (Central).	21
																				0·31	0·29	+0·03						IX.—Deccan.	
8	2	5	6	4	2		1	3	N 73° E	8·4*		10·9	−23	55	·372	2·7	0	0·27	−0·27	0	0·06	−0·06	0	0·06	−0·06	0	Belgaum	Bombay Deccan.	38
2	2	3	4	11	1	3		5	S 69° E	9·3	7·0	7·1	−1	33	·250	2·5	0	0·36	−0·36	0	0·11	−0·11	0	0·11	−0·11	0	Sholapur.		
5	1	1	1	2	1	4	8	8	N 81° W	7·7	8·7	5·7	+53	53	·288	2·6	0	0·36	−0·36	0	0·06	−0·06	0	0·06	−0·06	0	Poona.		
3	1		5	5	2	3	8	4	S 49° W	4·0	3·9			58	·425	2·4	0	0·20	−0·20	0	0·04	−0·04	0	0·04	−0·04	0	Bijapur.		
1	3	1	1	1		1	19	4	N 76° W	4·9	5·6	3·9	+44	40	·220	0·4	0	0·27	−0·27	0	0·16	−0·16	0	0·16	−0·16	0	Malegaon	Khandesh.	40
9	3	3	1	3	1		2	9	S 21° W	5·2	6·3			50	·307	1·4	0			0	0·30	−0·30	0	0·30	−0·30	0	Ahmednagar.		
8	1		3	6	5	2	5	1	S 1° E	5·0	4·8	3·4	+41	43	·265	4·7	0	0·45	−0·45	0·03	0·43	−0·40	0·03	0·43	−0·40	0·03	Akola	Berar.	41
	4	3	6	4	5	5	2	2	S 47° E	5·8	5·2	3.2	+63	46	·319	4·0	0	0·55	−0·55	0·04	0·39	−0·35	0·04	0·39	−0·35	0·04	Amraoti.		
14	1	3	3		2	2	3	3	N 38° W	4·8		2·8	+71	39	·218	2·9	1	0·45	+·055	0·26	0·31	−0·05	0·26	0·31	−0·05	0·26	Khandwa	Central Provinces (West).	42
9		19		2		1			N 51° E	0·8		2·5	−68	71	·361	2·5	1	0·82	+0·18	0·36	0·25	+0·11	0·36	0·25	+0·11	0·31	Hoshangabad		
13	4	4		2	1	1	1	5	N 8° W	6·3		3·9	+62	53	·358	4·4	0	0·64	−0·64	0	0·55	−0·55	0	0·55	−0·55	0	Nagpur.		
11	3	2	6	2	2	1	3	1	N 77° E	2·4		2·1	+14	61	·424	3·8	0			0·11	0·37	−0·26	0·11	0·37	−0·26	0·09	Chanda	Central Provinces (Central)	43
	7	8	3	4	4	3	1	1	N 53° E	1·8		2·7	−33	63	·365	4·5	2	1·18	+0·82	0·54	0·63	−0·09	0·54	0·63	−0·09	0·26	Seoni.		
6	1	5	1	7	8	1		2	S 43° E	2·5		2·2	+14	74	·361	5·5	3	1·73	+1·27	2·31	0·76	+1·55	2·31	0·76	+1·55	0·88	Jubbulpore.		
	4	5	7	5	2	3	2	3	N 76° E	4·8	5·4	2·8	+93	58	·279	3·5	2	1·36	+0·64	0·52	0·70	−0·18	0·52	0·70	−0·18	0·22	Saugor.		
7	4	1	5	5	1		4	4	S 38° E	3·7	4·0	4·0	0	74	·343	3·5	5	1·73	+3·27	2·68	1·05	+1·63	2·68	1·05	+1·63	1·00	Sutna	Central India.	49
17		3	4	3	1	1	1	1	S 81° E	1·4	1·3	2·6	−50	60	·379	4·7	3	0·45	+2·55	0·56	0·20	+0·36	0·56	0·20	+0·36	0·30	Raipur	Central Provinces (East).	44
	11	6	6	4				4	N 34° E	2·6	2·5	1·6	+56	73	·476	5·1	2			0·38	0·30	+0·08	0·38	0·30	+0·08	0·27	Sambalpur.		
24	3				1			3	N 27° W	3·2	3·1			69	·509	2·5	0			0	0·05	−0·05	0	0·05	−0·05	0	Indur.	Hyderabad (North).	
	1	3	3	1	2	17	4		S 40° W	8·0	9·6			68	·562	1·6	0			0	0	0	0	0	0	0	Bidar.		39
10	2	5	4	3	6		1		S 73° E	8·5	8·1			53	·403	1·8	0			0	0·08	−0·08	0	0·08	−0·08	0	Gulbarga	Hyderabad (South).	
9		1		12	4	2	1	2	S 25° E	6·6	6·5			66	·520	1·5	0			0	0·04	−0·04	0	0·04	−0·04	0	Raichur.		53
14			4	12			1		S 54° E	3·9	3·7			68	·472	3·0	0			0	0·09	−0·09	0	0·09	−0·09	0	Hyderabad (Du.).		
8		1	9	11	1			1	S 67° E	5·1		2·8	+34	70	·457	2·5	0			0	0·09	−0·09	0	0·09	−0·09	0	Secunderabad		
1			4	14	11		1		S 32° E	9·5	8·1			71	·552	4·3	0			0			0			0	Hanamconda		
																				0·31	0·24	+0·07						X.—West Coast.	
	5	14	11	1					N 57° E	9·4		10·1	−7	69	·525	1·4	0	0·27	−0·27	0	0·13	−0·13	0	0·13	−0·13	0	Bombay	Konkan.	
10	5	5	5	6					N 71° E	4·7	4·6	9·8	−53	67	·507	1·4	0	0·45	−0·45	0	0·22	−0·22	0	0·22	−0·22	0	Ratnagiri.		37
1	10	3	4	12				1	N 72° E	8·5*				86	·679	1·7	0	0		0	0	0	0	0	0	0	Mormugao.		
	2	10	18						N 70° E	6·2				79	·607	2·1	1			1·07	0·25	+0·82	1·07	0·25	+0·82	1·07	Goa.		
1	7	13	9	1					N 51° E	4·3				84	·562	1·6	0	0·27	−0·27	0	0·12	−0·12	0	0·12	−0·12	0	Karwar.		
1	17	13							N 19° E	5·0				78	·698	2·5	1	0·82	+0·18	1·40	0·59	+0·81	1·40	0·59	+0·81	1·37	Cochin	Malabar.	
[illegible]	2	6	9	4					N 78° E	5·5	6·9			82	·714	1·6	0	0·38	−0·38	0	0·08	−0·08	0	0·08	−0·08	0	Calicut.		32
[illegible]		1	10	6					S 77° E	1·9		3·9	−51	77	·668	5·3	0	0·10	−0·10	0	0·09	−0·09	0	0·09	−0·09	0	Mangalore.		
[illegible]	2	2	9	1				7	N 39° E	4·1				77	·685	2·7	1			0·30	0·64	−0·34	0·30	0·64	−0·34	0·29	Trivandrum.		
																				0·50	0·49	−0·04						XI.—South India.	
	7	14	9					1	N 45° E	8·9	9·4			91	·849	2·5	1	1·50	−0·50	0·34	1·80	−1·46	0·34	1·80	−1·46	0·30	Pamban	Madras (South)	
	19	4					1	7	N 6° W	4·8	4·6			79	·721	5·9	1	2·20	−1·20	0·41	1·26	−0·85	0·41	1·26	−0·85	0·37	Tinnevelly.		57
5	9	13	1					3	N 22° E	3·7	3·7	5·4	−31	78	·706	3·1	1	1·008	0	0·23	0·33	−0·10	0·23	0·33	−0·10	0·15	Madura.		
[illegible]		1	4	1		2	1	1	S 68° E	1·9	2·1			80	·634	3·4	2			1·94						1·60	Periyakulam.		

Table

Abstract of Observations taken at 8 A.M. at 221

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
24	Madras, (South Central).	Salem	940	29·121	−·006	30·023	29·181	21st	29·043	8th	·138	72·8	91·1	+2·9	65·6	+2·3	78·4	+2·6	25·5	94·4	26th	55·5	1st	38·9
		Coimbatore	1,348	28·682	0	30·002	28·729	21st	28·606	8th	·123	70·9	87·3	+1·2	65·9	+1·9	76·9	+1·6	21·9	91·4	9th	57·2	1st	34·2
35	Coorg	Mercara	3,781	28·295	−·015		26·337	21st	26·241	8th	·096	64·0	81·0	+4·6	59·3	+3·4	70·2	+4·0	21·7	85·0	27th	54·7	17th	30·3
36	Mysore	Chitaldroog	2,405	27·618	0	29·963	27·700	6th	27·520	8th	·180	73·0	88·6	+4·6	64·3	+2·8	76·5	+3·7	24·3	93·1	29th	56·9	4th	36·2
		Bangalore	3,021	27·031	−·008	30·004	27·088	21st	26·941	8th	·147	65·2	84·5	+5·2	59·1	+2·5	71·8	+3·9	25·4	87·3	17th	51·9	5th	35·4
		Hassan	3,091	26·968		30·006	27·022	21st	26·876	8th	·146	67·5	85·7		55·3		70·5		30·4	88·5	27th	46·0	4th	42·5
		Mysore	2,518	27·524	+·002	29·993	27·585	21st	27·441	8th	·144	69·8	87·1	+2·9	61·8	+2·0	74·5	+2·5	25·3	90·1	27th	53·4	1st	36·7
56	Madras, East Coast, South.	Negapatam	31	30·010	+·005	29·970	30·062	20th	29·917	8th	·145	78·4	83·3	+1·5	72·7	+2·1	78·0	+1·8	10·3	87·0	10th	66·9	16th	20·1
		Cuddalore	12	30·044	+·012	29·985	30·100	20th & 21st	29·956	8th	·144	75·0	84·1	+0·8	65·4	?	74·7	?	18·7	86·8	31st	59·3	2nd	27·5
		Trichinopoly	255	29·792	+·001	29·986	29·845	20th	29·721	26th	·124	73·6	90·1	+2·9	68·9	+2·0	79·5	+2·5	21·2	93·5	26th & 31st	60·4	1st	33·1
		Madras	22	30·044	−·005	29·997	30·101	20th	29·943	8th	·158	74·1	84·9	+0·3	67·3	+0·2	76·1	+0·1	17·6	87·5	3 days	62·0	2nd	25·5
55	Madras, East Coast, Central.	Nellore	71	29·981	−·002	29·987	30·054	20th	29·860	8th	·194	73·1	89·2	+3·3	68·0	+1·7	78·6	+2·5	21·2	93·4	8th	62·1	5th & 6th.	31·3
		Masulipatam	15	30·056	+·003	30·006	30·144	20th	29·937	8th	·207	73·3	85·8	+2·5	67·0	+1·3	76·4	+1·9	18·8	91·6	8th	59·2	6th	32·4
54	Madras, Central	Cuddapah	433	29·607	−·010	29·990	29·684	21st	29·477	8th	·207	74·3	93·3	+5·7	67·1	+2·9	80·2	+4·3	26·2	97·1	9th	57·8	6th	39·3
		Kurnool	923	29·099	−·016	29·998	29·169	21st	28·945	8th	·224	68·0	92·1	+3·8	62·3	+3·5	77·2	+3·7	29·8	95·2	3 days	51·2	4th	44·0
		Bellary	1,475	28·543	−·014	29·996	28·622	21st	28·434	8th	·188	70·4	91·7	+4·2	64·3	+3·8	78·0	+4·0	27·4	95·2	8th & 28th	55·1	4th	40·1
52	Madras, East Coast, North.	Cocanada	26	30·038	−·001	29·999	30·126	20th	29·911	8th	·215	73·4	84·6	+3·7	68·6	+3·2	76·6	+3·5	16·0	91·6	8th	64·0	6th	27·6
		Waltair	226	29·833	−·009	30·005	29·932	20th	29·703	7th	·229	74·2	82·8	+1·7	68·9	+2·9	76·4	+2·3	12·9	90·4	8th	66·9	4th	23·5
		Gopalpur	21	30·044	−·004	30·005	30·155	20th	29·900	7th	·255	70·3	82·4	+1·9	65·9	+4·4	74·2	+3·2	16·5	86·3	8th	59·1	1st	27·2
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·865			26·010	18th	25·690	8th	·320	39·4	54·5		27·3†		41·7†		27·2	67·0	1st	15·0	23rd	52·0
		Pishin											47·2		21·5		34·4		25·7	63·0	12th	3·0	24th & 25th	60·0
		Quetta	5,502	24·687	+·006		24·818	6th	24·557	16th	·261	27·1	43·0	−8·5	24·8	−4·5	33·9	−6·5	18·2	58·7	12th	3·3	24th	55·4
		Kalat										25·3	45·3		17·9		31·6		27·4	62·8	12th	0	22nd	62·8
		Chaman	4,311	25·795	+·028		25·959	6th	25·669	16th	·290	34·0	46·4	−6·6	29·3	−6·1	37·9	−6·4	17·1	61·3	12th & 13th.	18·1	22nd	43·2
3	Punjab	Leh	11,503	19·595	−·066		19·815	19th	19·297	22nd	·518	10·2	26·3	−7·4	7·4	−2·2	16·9	−4·8	18·9	36·5	1st	−6·0	27th	42·5
		Srinagar	5,204	24·950	−·041		25·191	19th	24·727	22nd	·464	26·2	40·3	+1·0	23·6	−3·1	32·0	−1·1	16·7	51·5	10th	14·1	27th	37·4
		Astor (Kashmir.)		22·595			22·851	19th	22·371	22nd	·480	22·0	34·2		20·1		27·2		14·1	52·4	16th	9·5	8th	42·9
		Minimarg		21·266			21·493	19th	21·077	24th	·416	13·7	36·2		8·4		22·2		27·8	50·5	10th	0	9th	50·5
		Skardu		22·884			23·163	19th	22·604	22nd	·559	24·5	35·9		22·2		29·1		13·7	41·4	7th	14·2	24th	27·2
		Dras		20·740			21·005	19th	20·430	22nd	·575	6·0	20·1		−7·3		6·4		27·4	40·3	1st	−29·4	8th	69·7
		Gilgit		25·224			25·511	19th	24·961	1st	·550	36·3	46·9		32·6		39·8		14·3	52·1	10th	26·7	23rd & 24th.	25·4
		Chitral		24·739			24·955	19th	24·545	1st & 15th	·410	30·8	43·2		29·3		36·3		13·9	50·1	7th	25·0	22nd	25·1
		Killa Drosh										32·0	44·1		29·4		36·8		14·7	51·7	1st	23·6	22nd	28·1
		Para Chinar	6,000									31·3	47·0		26·1		36·6		20·9	56·5	12th	11·8	24th	44·7
		Cherat		25·748	−·017		25·935	19th	25·551	8th	·384	39·5	46·7	−2·0	36·7	−1·2	41·7	−1·6	10·0	57·2	13th & 14th.	27·0	18th & 24th.	30·2
		Murree	8,333	23·859	+·006		23·982	19th	23·744	17th	·238	35·5	42·8	−5·1	31·7	−3·7	37·3	−4·4	11·1	57·2	12th	21·5	23rd & 24th.	35·7
		Poo											39·6		22·5		31·1		17·1	49·3	5th	12·6	25th	36·7
		Simla	7,224	23·097	−·025		23·222	19th	22·949	8th	·273	37·0	43·9	−2·5	33·9	−2·6	38·9	−2·6	10·0	55·8	13th	22·2	18th	33·6
25	N.-W. Provinces.	Chakrata*	7,022	23·273	−·017		23·396	20th	23·132	8th	·264	37·4	46·7	−3·9	33·8	−2·2	40·3	−3·1	12·9	61·3	14th	26·8	16th	34·5
		Mussoorie	6,705	23·571	−·007		23·696	19th	23·418	8th	·278	39·2	46·3		36·2		41·3		10·1	56·2	13th	30·0	24th	26·2
		Ranikhet	6,069	24·138	+·003		24·261	18th & 19th.	23·976	8th	·285	41·6	51·7	−2·5	39·2	−0·5	45·5	−1·5	12·5	61·7	1st & 13th	30·0	24th	31·7
		Muktesar		22·854			22·959	20th	22·708	8th	·251	38·5	47·5		31·4		41·0		13·1	60·4	13th	25·4	16th	35·0

* Mean of 28 days.

† Mean of 25 days.

—continued.

Stations in India, Burma, etc., in January, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st January 1900.	Normal rainfall for period, 1st to 31st January.	Variation from normal of period, 1st to 31st January.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Districts.
17		8	5	1					N 67° E	5·7	5·1	5·0	+ 2	76	·619	3·2	1	0·36	+0·64	0·91	0·31	+0·60	0·91	0·31	+0·60	0·90	Salem	Madras (South Central).	31
		12	19						N 73° E	1·6		3·1	−48	90	·688	6·2	2	0·64	+1·36	5·72	0·19	+5·54	5·73	0·19	+5·54	5·57	Coimbatore.		
11	3	5	11	1					N 69° E	4·7	4·4	4·3	+2	73	·443	3·6	0	0·30	−0·30	0·02	0·04	−0·02	0·02	0·04	−0·02	0·02	Mercara	Coorg.	35
3			8	11	1	2	4	2	S 45° E	7·3	6·4			50	·438	2·2	0			0	0·24	−0·24	0	0·24	−0·24	0	Chitaldroog	Mysore.	36
		5	19	5	1		1		S 88° E	9·1	7·9	3·8	+108	77	·478	3·7	0	0·50	−0·50	0·03	0·19	−0·16	0·03	0·19	−0·16	0·08	Bangalore.		
3		4	11	11	1			1	S 77° E	2·8	2·4			66	·450	3·6	0			0	0·70	−0·70	0	0·70	−0·70	0	Hassan.		
1	3	8	11	4	1	2		1	N 77° E	7·4	8·0			64	·467	3·8	0			0	0·08	−0·08	0	0·08	−0·08	0	Mysore.		
3	8	13	1					6	N 16° E	13·7	14·9	5·4	+176	77	·756	3·9	1	2·82	−1·82	0·50	1·46	−0·96	0·50	1·46	−0·96	0·50	Negapatam	Madras, East Coast, South.	56
	8	3	2				2	16	N 23° W	2·3	2·9			91	·793	1·9	1	1·40	−0·40	0·13	1·05	−0·92	0·13	1·05	−0·92	0·13	Cuddalore.		
0	6	4						1	N 12° E	3·5		4·7	−26	86	·711	3·8	1	0·91	+0·09	0·21	0·26	−0·05	0·21	0·26	−0·05	0·21	Trichinopoly.		
	11	6	4	4	3			3	N 38° E	4·0		6·1	−34	86	·732	4·6	1	1·36	−0·36	0·33	0·89	−0·56	0·33	0·89	−0·56	0·33	Madras.		
7			1	3	2		9	9	N 80° W	3·5				88	·726	5·3	1	0·60	+0·40	0·18	0·44	−0·26	0·18	0·44	−0·26	0·18	Nellore	Madras, East Coast, Central.	55
7	11	5	2	4	2				N 41° E	5·0		5·2	−4	86	·703	3·5	0	0·27	−0·27	0	0·12	−0·12	0	0·12	−0·12	0	Masulipatam.		
		5	8	15	1	2			S 65° E					77	·660	2·1	0	0·20	−0·20	0	0·02	−0·02	0	0·02	−0·02	0	Cuddapah	Madras, Central	54
8			1	1				1	E					64	·455	2·1	0	0·60	−0·60	0	0·08	−0·08	0	0·08	−0·08	0	Kurnool.		
1			1	13	2			4	S 41° E	4·2	4·5	3·3	+36	54	·412	4·1	0	0·18	−0·18	0	0·13	−0·13	0	0·13	−0·13	0	Bellary.		
	12	6	2	1	1	2	5	2	N 3° W	8·9	8·2			74	·600	4·3	0	0·50	−0·50	0	0·14	−0·14	0	0·14	−0·14	0	Cocanada.	Madras, East Coast, North.	52
4	2	9	1	1	1	1	10	2	N 30° W	7·8				79	·665	3·7	0			0			0			0	Waltair.		
1	13						1	16	N 27° W	8·8	8·6	6·5	+32	88	·647	0·7	0	0·38	−0·38	0	0·16	−0·16	0	0·16	−0·16	0	Gopalpur.		
																											XII.—Hill Stations.		
3	3					10		5	S 87° W	3·6				53‡	·131‡	2·7	1			0·73	2·51	−1·78	0·73	2·51	−1·78	0·65	Shahrig	Baluchistan.	48
																	2			0·76	2·84	−2·08	0·76	2·84	−2·08	0·56	Pishin.		
6			1	1	2	1			S 16° E	2·0	2·1	3·8	−45	91	·136	4·4	5	4·36	+0·64	2·04	2·11	−0·07	2·04	2·11	−0·07	0·76	Quetta.		
	10		1		17		3		S 16° W					89	·130		1			0·68	1·90	−1·22	0·68	1·90	−1·22	0·56	Kalat.		
	3		8	9	5	5	1		S 40° E	5·1	5·4			83	·168	3·4	4			2·25	1·65	+0·60	2·25	1·65	+0·60	1·00	Chaman.		
		1	2		2	17	9		S 56° W	1·7				56	·042	6·8	2			0·66	0·33	+0·33	0·66	0·33	+0·33	0·24	Leh	Punjab.	30
9	1	1	2	4	2		1	1	S 57° E	2·2	2·4			87	·128	5·7	7			3·38	2·59	+0·79	3·38	2·59	+0·79	1·35	Srinagar.		
1					10	8	1	1	S 25° W	4·9				69	·085	6·9	4			0·78			0·78			0·25	Astor (Kashmir.)		
8		1	4			1	3	4	N 34° W	5·4				81	·067	5·5	12			6·10			6·10			0·95	Minimarg.		
4						3	3	1	S 76° W	4·4	5·2			88	·116	7·8	2			0·53	2·28	−1·75	0·53	2·28	−1·75	0·23	Skardu.		
1		1	1		1	1	4	2	N 84° W	1·6	1·6			98	·065	7·0	6			2·39			2·39			0·60	Dras.		
0						4	7		S 73° W	1·7	1·7			65	·138	7·9	0			0·04	0·14	−0·10	0·04	0·14	−0·10	0·02	Gilgit.		
3					2	1			S 14° W	0·8	0·7			79	·136		7			2·60			2·60			0·90	Chitral.		
1	1		12		3		4		S 76° E					87	·158	6·2											Killa Drosh.		
	10	4	1	1		1	3	11	N 20° W	3·3				78	·134	4·1	5			1·87			1·87			0·66	Para Chinar.		
	17	2		1	3			8	N 10° W	15·6	14·5			59	·132	4·4	8			3·45	2·94	+0·51	3·45	2·94	+0·51	1·02	Cherat.		
5	2		3	18	2			1	S 51° E	9·4	11·6	8·1	+43	60	·118	3·8	8	3·18	+4·82	5·19	3·52	+1·67	5·19	3·52	+1·67	1·12	Murree.		
																6·4	7			3·83	3·20	+0·63	3·83	3·20	+0·63	0·98	Poo.		
3		5	5	22	7			1	S 65° E	5·5		2·0	+175	63	·131	6·4	7	4·27	+2·73	3·38	2·35	+1·03	3·38	2·35	+1·03	0·90	Simla.		35
0	14			1				2	N 3° W	8·9		4·8	+ 85	68	·149	6·8	10			9·29	3·53	+5·76	9·29	5·33	+5·76	2·11	Chakrata*	North-Western Provinces.	
	2	3	16	4	2		1	3	N 85° E					61	·149	5·8	8	3·30	+4·70	6·53	2·83	+3·70	6·53	2·83	+3·70	1·55	Mussoorie.		
3	1	7	4	2	1	1		1	N 69° E	2·1	2·4	1·4	+71	59	·149	5·8	7	3·71	+3·29	3·88	2·94	+0·94	3·88	2·94	+ 0·94	1·20	Ranikhet.		
3	1	1	4	14	1		1	5	S 59° E	8·5	7·8			61	·132	7·0	7			3·38			3·38			0·72	Muktesar.		

‡ Mean of 23 days.

Tabl

Abstract of Observations taken at 8 A.M. at 22

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
13	Bengal	Yatung	10,480?										41·7		21·3		31·5		20·4	49·1	22nd	10·9	27th	38·2
		Darjeeling	7,409	23·025	+·047		23·138	18th	22·794	7th	·344	39·6	46·1	+1·1	34·6	0	40·4	+0·6	11·5	52·4	31st	31·0	9th	21·4
		Gantok	5,660	24·568			24·688	18th	24·457	7th	·231	46·4	55·3		26·4		40·9		28·9	61·7	20th	22·8	10th	38·9
	Central India	Mount Abu	3,945	26·090	−·048		26·172	19th	25·957	8th	·215	54·3	63·6	−3·4	49·7	−1·4	56·7	−2·4	13·9	71·1	3 days	37·0	24th	34·1
		Pachmarhi	3,528	26·536	−·024		26·638	20th	26·401	8th	·238	58·9	74·3	+3·4	51·3	+3·9	62·8	+3·7	23·0	80·2	6th	36·3	25th	43·9
	South India	Wellington	6,200	24·310	+·001		24·357	20th & 21st,	24·245	8th	·112	56·0	71·3	+4·8	45·7	+0·2	58·5	+2·5	25·6	76·2	8th	33·7	2nd	42·5
		Kodai Kanal	7,688	22·886			22·928	21st	22·838	3rd	·090	56·5	64·9		48·5		56·7		16·4	70·9	26th	44·6	23rd	26·2
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·996	+·006	29·934	30·047	18th	29·916	8th	·131	78·4	83·5	P	75·2	+0·7	79·3	P	8·3	87·0	29th	70·9	2nd	17·0
		Colombo	40	29·951	−·001	29·917	29·991	16th	29·881	26th	·110	78·1	89·7	+2·4	72·6	+0·6	81·1	+1·5	17·1	92·5	22nd	68·5	2nd & 3rd,	24·0
	Persia	Meshed	3,104									22·2			15·7							3·0	2nd	
		Teheran		†26·208 ‡25·400			26·500 25·620	25th 21st	25·750 25·200	24th 4th	·750 ·420	** 23·4	** 35·1		** 19·1		** 27·1		16·0	45·3	16th	12·0	23rd	33·3
		Ispahan		†24·389 †24·599			24·600 24·800	7th 7th	24·150 24·370	4th 4th	·450 ·430	27·0	44·0		22·6		33·3		21·4	57·1	30th	13·3	5th & 6th.	43·8
		Bushire	14	30·155	+·035	30·128	30·411	6th	29·943	13th	·468	54·5	62·6	−2·6	51·7	−0·3	57·2	−1·5	10·9	71·1	13th	45·8	3 days	25·3
		Jask*		30·087	−·030	30·039	30·288	22nd	29·916	4th	·372	61·4	71·8	−1·8	58·4	−1·9	65·1	−1·9	13·4	76·3	1st & 15th	45·3	23rd	31·0
	Arabia	Muscat	20	30·143		30·111	30·305	6th	29·984	19th	·321	68·5	71·5		66·7		69·2		4·8	78·2	20th	62·3	23rd	15·9
		Baghdad	220	30·050	+·024	30·266	30·378	6th	29·842	11th	·536	43·3	60·4	−2·9	39·5*	+1·8	49·9*	−0·6	20·9	67·2	10th	32·5	5th	34·7
		Bussorah		30·175			30·442	6th	29·991	18th	·451		58·4							66·2	18th			
		Aden	94	29·988	+·004	30·015	30·114	7th	29·865	4th	·249	7	79·1	−2·5	72·3	+0·1	75·7	−1·2	6·8	81·3	3 days	66·9	8th & 10th,	14·4
		Perim	201	29·845		29·983	29·972	7th	29·741	4th	·231	75·8	82·0		73·2		77·7		8·8	83·7	3 days	69·0	6th	14·7
	Afghanistan	Kabul			Not	recorded.						23·4	59·8		19·0		39·4		40·8	75·2	14th	2·4	24th	72·8
	Central Asia	Kashgar		25·718			26·030	4th	25·432	11th	·598	5·0	18·4		1·5		10·0		16·9	27·0	14th	−6·7	3 days	33·7
	Arabian Sea Islands.	Amiri Divi	13	30·023		29·964	30·071	6th	29·928	8th	·142	P	85·7		75·5		80·6		10·2	86·9	22nd	67·2	4th	19·7
		Minicoy	7	29·851		29·883	30·003	18th	29·877	8th	·126	81·0	84·9							86·0	13th			
	Africa	Zanzibar	73	29·923	+·016	29·923	30·000	7th	29·864	27th	·136	81·9	85·8		79·9		82·9		5·9	89·8	5th	76·8	9th	13·0
		Dunga (Zanzibar).		29·840			29·916	7th	29·786	27th	·130	81·5	91·7		74·5		83·0		17·2	97·0	28th	70·3	1st	26·7

† Aneroid uncorrected.
‡ Mountain barometer uncorrected.

* Mean of 30 days.
** Mean of 27 days.

NOTE.—When a query is inserted against any reading or in the variation returns for any station, the data fo

—concluded.

Stations in India, Burma, etc., in January, 1900—concluded.

Wind Direction. Number of winds from: N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind velocity: Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variations.	Hygrometry, 8 A.M.: Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall: Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st January 1900.	Normal rainfall for period, 1st to 31st January.	Variation from normal of period, 1st to 31st January.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Districts.
																7			2·63			2·63			1·10	Yatung	Bengal.	13
7	1	1	4	3	2	6	6	1	S 34° W	5·4	5·0	2·6	+92	82	·195	5·5	2	1·65	+0·35	0·90	0·67	+ 0·23	0·90	0·67	+ 0·23	0·38	Darjeeling.		
7		4							N 45° E		2·5			74	·232	3·6	4			1·64	0·69	+ 0·95	1·64	0·69	+ 0·95	0·70	Gantok.		
4	6	7	1	3	1	2	2	5	N 7° E	6·8	7·1	4·8	+48	34	·147	3·9	0	0·73	− 0·73	0	0·42	− 0·42	0	0·42	− 0·42	0	Mount Abu.	Central India.	
7			1		1	6	3	3	S 69° W	3·8	3·9	3·1	+26	57	·289	4·9	3	1·55	+ 1·45	0·75	0·51	+ 0·24	0·75	0·51	+ 0·24	0·39	Pachmarhi.		
7	1		1		1	1			S 22° E	2·3		2·4	− 4	59	·274	2·1	3	1·75	+ 1·25	1·48	1·04	+ 0·44	1·48	1·04	+ 0·44	0·80	Wellington.	South India.	
			3	28					S 49° E	10·7				46	·197	3·2	3			1·69			1·69			0·78	Kodai Kanal.		
																											XIII.—Extra India.		
9		20				1		1	N 42° E	1·4				84	·823	3·0	10			4·90	7·44	− 2·54	4·90	7·44	− 2·54	1·14	Trincomalee	Ceylon.	
1	8	14	5	3					N 47° E	7·4		8·4	−12	82	·793	1·8	5			4·56	2·92	+ 1·64	4·56	2·92	+ 1·64	2·34	Colombo.		
														79	·095	4·5	0			0	0·23	− 0·23	0	0·23	− 0·23	0	Meshed.	Persia.	
										1·3	1·7					5·5‖	1			0·50	1·16	− 0·66	0·50	1·16	− 0·66	0·50	Teheran		
8	1	1				7	4	2	S 79° W	1·5	2·0			87	·128	4·4	0			0	0·11	− 0·11	0	0·11	− 0·11	0	Ispahan.		
	5	10	4	9	1			2	N 69° E	6·7	8·2			82	·251	4·6	5			1·82	3·39	− 1·57	1·82	3·39	− 1·57	0·60	Bushire.		
	11	11	6					2	N 31° E	11·3	13·1			65	·365	3·9	4			1·54	0·71	+ 0·83	1·54	0·71	+ 0·83	0·58	Jask.*		
1	1	1		2	2	3	3	8	N 77° W	5·9	6·1			63	·446	5·4	4			2·53	2·36	+ 0·17	2·53	2·36	+ 0·17	1·16	Muscat.	Arabia.	
1	3			2	3		1	8	N 51° W		1·6			83	·237	2·9	2			0·43	1·59	− 1·16	0·43	1·59	− 1·16	0·13	Baghdad.		
	4				10			8	S 87° W								1			0·54			0·54		¶	0·25	Bussarah.		
		12	13	6					N 81° E	14·2		12·0	+18	72	·611	6·3	1			0·19	0·28	− 0·09	0·19	0·28	− 0·09	0·11	Aden.		
2		7	11	8	1		1	1	S 87° E	22·4	20·8			72	·641	5·2	3			1·11	0·50	+ 0·61	1·11	0·50	+ 0·61	0·54	Perim.		
3	1	1	1			7	7	1	S 77° W							2·9§	0			0						0	Kabul.	Afghanistan.	
2					2		7		S 74° W							7·5	4			0·56	0·42	+ 0·14	0·56	0·42	+ 0·14	0·10	Kashgar.	Central Asia.	
1	19	4						7	N 4° W							4·2	0			0			0			0	Amini Divi.	Arabian Sea Islands.	
1	12	15	2	1					N 31° E	5·1	5·5			76	·807	2·5	2			0·87			0·87			0·59	Minicoy.		
	13	14			1	1	2		N 18° E	7·5	7·1			82	·887	7·1	7			4·45	2·95	+ 1·50	4·45	2·95	+1·50	1·21	Zanzibar.	Africa.	
	4	21		2		1	1		N 41° E		7·3			84	·901	6·8	9			3·38			3·38			0·89	Dunga (Zanzibar).¶		

stations are not utilized in calculating the provincial variations. ‖ Mean of 29 days. § Mean of 24 days. ¶ Wind variable.

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.	Pressure. Mean of 16 hours.	Pressure. Mean daily range.	Pressure. Mean daily pressure.	Pressure. Variation from normal.	Pressure. Mean reduced to S. L. and for gravity 45° Lat.	Temperature of Air. Mean maximum.	Temperature of Air. Mean minimum.	Temperature of Air. Mean daily range.	Temperature of Air. Highest maximum.	Temperature of Air. Lowest minimum.	Temperature of Air. Absolute range.	Temperature of Air. Mean 10 hours.	Temperature of Air. Mean 16 hours.	Temperature of Air. Mean daily.	Temperature of Air. Variation from normal.	Temperature Wet Bulb. Mean minimum.	Temperature Wet Bulb. Mean 10 hours.	Temperature Wet Bulb. Mean 16 hours.	Temperature Wet Bulb. Mean daily.
Burma Coast and Bay Islands.	Port Blair		29·965	29·868	·097	29·912	+·023	29·903	87·3	76·3†	11·0	90·9	70·0	20·9	82·9	85·6	81·0†	+1·5	73·2	77·4	78·3	76·3
	Rangoon		30·003	·865	·138	·933	−·010	·911‡	91·4	64·9	26·5	95·9	59·5	36·4	78·0‡	90·0‡	76·0‡	+2·0	62·9	69·6	70·3	67·6
	Diamond Island		·017	·900	·117	·955	0	·930	85·1	73·4	11·7	89·6	67·2	22·4	80·9	81·8	78·0	+2·1	69·5	74·1	73·5	72·4
	Cocos Islands**	111	29·877	·781	·096	·825	−·032	·869	83·9	75·2	8·7	86·4	72·8	13·6	81·1	80·7	78·3	+3·4	70·3	74·2	74·1	72·9
	Akyab		30·047	·927	·120	·981	−·013	·944	83·3	?	?	89·7	?	?	73·0	79·5	?	?	?	66·1	70·2	?
Bengal and Upper.	Chittagong		29·992	·878	·114	·931	−·011	·968	81·2	58·3	22·9	86·1	49·1	37·0	71·8	78·4	69·5	+3·4	57·4	65·9	68·0	63·8
	Calcutta (Alipore)		30·091	·963	·128	30·015	+·001	·982	80·7	59·5	21·2	86·3	50·8	35·5	71·8	79·3	69·0	+3·8	57·9	64·1	66·6	62·8
	Saugor Island		·076	·954	·122	·005	0	·975	79·7	61·8	17·9	83·0	55·1	27·9	73·7	77·2	69·7	+2·6	60·4	67·2	68·5	65·4
	False Point		·072	·958	·114	·010	−·015	·972	81·2	62·7	18·5	84·4	58·0	26·4	76·9	78·4	70·8	+3·0	62·7	72·0	72·9	69·2
Gangetic Plain and Chota Nagpur.	Hazaribagh		28·042	27·938	·104	27·982	+·004	·991	72·9	53·6	19·3	80·2	46·9	33·3	64·5	69·9	62·0	+1·1	50·0	55·1	57·6	54·2
	Darbhanga		29·939	29·824	·115	29·873	0	30·000	70·9	54·0	16·9	76·1	46·5	29·6	63·9	69·5	61·9	−0·2	53·0	59·9	62·0	58·3
	Allahabad		·797	·678	·119	·725	−·004	·001	72·5	51·4	21·1	82·7	39·1	43·6	63·4	70·6	60·8	+0·2	49·7	57·0	60·3	55·6
Upper Sub-Himalayas.	Dehra Dun		27·792	27·706	·087	27·740	−·003	·020	65·3	45·5	19·8	73·5	37·8	35·7	56·5	61·3	53·9	−0·9	41·9	48·8	50·6	37·1
	Roorkee		29·166	29·072	·094	29·108	−·006	·007	69·4	45·3	24·1	77·4	34·6	42·8	57·8	65·9	56·0	+0·2	42·5	50·5	53·9	49·0
	Meerut		·322	·221	·101	·263	−·020	·004	70·1	46·7	23·4	78·7	38·2	40·5	57·3	66·7	57·1	+0·9	42·7	50·6	55·0	49·8
	Lahore		·372	·288	·084	·318	−·010	·032	65·0	42·7	22·3	71·8	35·2	36·6	53·4	64·3	52·6	+0·6	39·5	47·3	52·5	46·4
	Lahore (New shed)								67·0	41·4	25·6	74·5	34·0	40·5	55·1	64·6	52·5		39·0	48·3	52·7	46·6
	Ludhiana		·249	·170	·079	·198	−·004	·024	65·5	45·1	20·4	73·1	36·4	36·7	55·3	63·5	53·9	+1·1	41·8	48·3	52·0	47·4
Indus Valley and N.-W. Rajputana.	Peshawar		28·983	28·896	·087	28·928	−·016	·088	61·2	38·5	22·7	70·2	30·9	39·3	52·2	58·3	48·0	−1·5	35·4	44·7	47·7	42·6
	Jacobabad		29·968	29·852	·116	29·898	+·027	·054	70·7	41·2	29·5	78·6	34·0	44·6	59·3	67·9	54·1	−2·5	36·4	47·8	52·6	45·6
	Kurrachee		30·130	30·012	·118	30·062	+·031	·043	75·1	52·0	23·1	82·0	40·2	41·8	66·2	72·7	62·6	−2·4	42·5	51·7	56·2	50·1
N. Rajputana, Central India, and Gujarat.	Jaipur		28·635	28·535	·100	28·574	−·006	·016	72·3	47·8	24·5	80·2	32·8	47·4	62·5	69·7	58·1	−0·7	41·3	50·4	53·5	48·4
	Udaipur		·123	·003	·120	·063		29·996	73·8	49·5	24·3	83·6	40·2	43·4	64·3	72·5	61·3		41·4§	49·1	52·6	47·7
	Deesa		29·611	29·493	·118	29·540	+·004	·973	80·1	52·0	28·1	88·9	41·0	47·9	70·2	78·2	66·1	−1·5	41·2‡	51·7	54·9	49·2
	Jamnagar		30·052	·928	·124	·990		·997	77·2	52·9	24·3	84·6	43·3	41·3	69·2	76·1	64·7		46·4	53·4	55·9	51·9
Deccan.	Belgaum		27·478	27·353	·125	27·410	−·007	·852	85·4	58·1	27·3	89·1	49·9	39·2	76·9	83·6	71·3	+1·4	54·5	60·4	62·5	59·2
	Sholapur		28·440	28·285	·155	28·359	−·024	·886	91·3	62·6	28·7	96·0	55·7	40·3	78·9	89·4	76·1	+4·1	50·9	60·1	63·2	58·0
	Poona		·189	·057	·132	·121	−·009	·899	89·1	55·2	33·9	93·4	48·1	45·3	76·1	86·7	71·7	+2·4	50·0	58·5	61·9	56·8
	Akola		29·105	·948	·157	29·018	−·034	·904	90·9	58·2	32·7	96·0	46·0	50·0	78·3	89·4	73·4	+5·2	48·2	62·2	68·0	59·5
	Buldana	2,132	27·894	27·761	·133	27·819	−·020	·890	85·3	61·6	23·7	91·4	51·7	39·7	75·7	83·5	72·3	+3·8	48·5	55·7	59·0	54·4
	Khandwa		28·994	28·859	·135	28·919	−·014	·928	86·5	55·0	31·5	93·2	38·2	55·0	75·0	85·4	69·8	+2·9	46·4	57·8	61·8	55·3
	Nagpur		29·012	·864	·148	·930	−·026	·916	89·2	61·8	27·4	95·1	52·4	42·7	76·4	86·7	74·2	+6·0	53·0	62·8	67·3	61·0
	Do. (Sanitary Commr.'s Office).		·038	·892	·146	·957		·932	90·4	62·2	28·2	95·7	55·6	40·1	77·7	88·5	75·9		53·6	61·4	64·7	59·9
	Hyderabad (Deccan).		28·348	·218	·130	·277	−·012	·907	89·4	63·1	26·3	92·6	55·7	36·9	78·5	86·5	75·5	+5·2	58·8	65·1	65·4	63·1
West Coast.	Bombay		30·020	29·910	·110	29·956	+·005	·934	81·1	67·1	14·0	87·0	61·0	26·0	74·0	78·0	72·9	−0·3	59·1	65·5	68·4	64·3
	Karwar		29·597	·874	·123	·926	+·012	·902	84·7	64·7	20·0	92·0	59·4	32·6	76·5	82·5	73·8	−1·4	63·2	69·0	71·4	67·9

** Observations of 30 days. † Mean of 28 days. ‡ Mean of 30 days. § Mean of 29 days.

I.

6 Stations in India, Burma, etc., for January, 1900.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%						
·779†	·872	·873	·841	+·054	86†	77	71	78	+ 2	3·3	3·3	3·3	−0·1	1	19	37	2				3		N. 29° E.	N. 41° E.	87	76	142	162			Port Blair	Burma Coast and Bay Islands.
·552	·615‡	·480‡	·549	−·002	90	64‡	36‡	63	− 1	1·0	0·6	0·8	−1·2		19	21	10	2	2	4	3	1	N. 35° E.	N. 27° E.	55	36	82	95			Rangoon	
·663	·755	·717	·712	+·082	81	71	66	73	+ 3	1·2	1·5	1·4	−0·9	2	16	16	2	1	1		5	19	N. 6° W.	N. 1° W.	63	71	173*	176			Diamond Island.	
·677	·756	·759	·731	+·069	77	71	72	73	+ 2	1·6	2·2	1·9	−0·1		45	6	1					8	N. 1° W.	N. 18° E.	90	86	168	391	Nil	Nil	Cocos Island	
?	·552	·620	?	?	?	68	62	?	?	2·9	2·8	2·9	+1·6		2	14	15			2	21	8	N. 11° W.	N. 19° W.	26	42	64	67			Akyab	
·464	·563	·552	·526	+·059	94	72	57	74	+ 1	2·4	3·2	2·8	+1·4		2	29	1	2	1	6	4	17	N. 5° E.	N. 26° W.	45	47	72*	75			Chittagong	Bengal and Orissa.
·464	·501	·487	·484	+·082	90	64	48	68	− 1	3·3	2·9	3·1	+1·8	4	21	9	7	1		6	8	6	N. 5° W.	N. 36° W.	43	39	42	62			Calcutta (Alipore).	
·512	·588	·586	·562	+·043	92	70	63	75	0	3·7	3·2	3·5	+1·9		15	15	4	2	9	11	3	3	N. 18° E.	N. 6° W.	16	20	192	166			Saugor Island.	
·567‖	·722	·737	·675	+·138	98‖	78	76	84	+ 6	5·4§	4·1	4·8	+2·8		11	12	14	8	9	1	3	4	N. 72° E.	N. 57° E.	37	22	131*	147			False Point	
·323	·321	·330	·325	+·057	76	55	47	59	+ 8	7·3	7·6	7·5	+5·2	2	11	2	3	3	13	3	9	16	S. 86° W.	N. 53° W.	14	49	168*	135			Hazaribagh	Gangetic Plain and Chota Nagpur.
·396	·468	·461	·442	+·046	93	78	64	78	+ 7	3·4	4·0	3·7	+2·3	3	2	6	9	8	3	8	18	5	S. 61° W.	S. 80° W.	16	46	64	63			Darbhanga	
·341	·387	·395	·374	+·035	87	67	54	69	+ 3	6·5‡	6·5	6·5	+4·4	1	5	9	14	5		2	14	12	N	N. 40° W.	24	25	148*	81			Allahabad	
·223	·252	·239	·228	−·036	71	57	46	58	− 9	6·1	5·9	6·0	+1·8	3	1	5	6	4	5	3	16	2	S. 61° W.	S. 69° W.	13	18	50¶	40			Dehra Dun	Upper Sub-Himalayas.
·243	·276	·259	·259	−·030	77	57	42	59	− 7	5·2	5·1	5·2	+1·8	29	1	1	1	11	1	2	3	13	N. 81° W.	N. 76° W.	6	19	76	51			Roorkee	
·254	·287	·285	·275	−·015	77	59	44	60	− 5	4·6	4·5	4·6	+1·4	14			11	3		5	27	2	S. 78° W.	N. 56° W.	31	42	74*	49			Meerut	
·206	·249	·242	·232	−·040	74	61	41	59	− 4	4·0	3·9	4·0	+0·4	20	7		2	8	1		15	9	N. 64° W.	N. 27° W.	24	20	50	43			Lahore	
·210	·252	·243	·235		79	59	41	60																							Lahore (New shed).	
·228	·253	·237	·239	−·050	75	58	43	59	−10	4·0	5·0	4·5	+0·1	16	7	1	3	5	6	1	20	3	S. 89° W.	N. 54° W.	26	29	68*	35			Ludhiana	
·172	·208	·207	·196	−·029	73	55	46	58	− 4	4·3	4·6	4·5	−0·3	28	2	2	3	4	3	1	8	11	N. 64° W.	S. 2° W.	16	5	46*	64			Peshawar	Indus Valley and N.-W. Rajputana.
·158	·184	·193	·178	−·051	61	38	29	42	− 7	4·0	4·4	4·2	+1·2	25	7	1	1	2	1		5	20	N. 40° W.	N. 4° W.	41	24	75*	51			Jacobabad	
·153	·200	·242	·198	−·153	38	30	29	32	−24	2·4	2·7	2·6	0	2	6	15	11	3	3	6	6	10	N. 27° E.	N. 23° E.	25	23	176*	239			Kurrachee	
·192	·223	·218	·211	−·063	55	39	29	41	−12	4·0	4·9	4·5	+1·3	2	8	13	4	4	2	5	7	16	N. 17° W.	N. 8° E.	32	18	83	83			Jaipur	E. Rajputana, Central India, and Gujarat.
70§	·166	·156	·164		47§	27	19	31		2·8	3·2	3·0		18	3	11	10	5	1	3	6	5	N. 52° E.		19		67				Udaipur	
251	·147	·128	·132	−·120	32‡	2	13	21	−16	2·5	2·9	2·7	+0·5		10	19	10	2	1	3	5	12	N. 19° E.	N. 20° E.	47	38	250	208			Deesa	
37	·206	·184	·209		57	28	20	35		1·0	1·0	1·0			16	20	2			3	10	11	N. 6° W.		58		301*				Jamnagar	
87	·325	·309	·340	−·005	79	35	27	47	0	2·4	2·6	2·5	+1·0		3	6	6	14	8	11	10	2	S. 4° E.	S. 75° E.	28	43	196§	249			Belgaum	Deccan.
34	·291	·254	·260	−·090	40	29	18	29	−15	2·3	3·9	3·1	+1·3	4	2	3	2	23	12	10	1	5	S. 18° E.	S. 59° E.	47	55	156*	184			Sholapur	
01	·276	·248	·275	−·041	68	31	20	39	− 3	2·7	2·7	2·7	+1·2	2	4	4	7	6	4	14	12	9	S. 71° W.	N. 63° E.	24	9	215*	134			Poona	
14	·353	·406	·324	−·005	42	36	29	36	−12	4·6	4·8	4·7	+3·3	5	4	7	3	5	5	8	11	14	N. 73° W.	N. 50° E.	25	28	114*	88			Akola	
84	·206	·200	·197	−·113	33	23	17	24	−20	2·6	3·7	3·2	+1·2		10	3	6	5	7	8	8	15	N. 62° W.	N. 75° E.	23	13	190*	132	0·13	0·13	Buldana	
18	·269	·259	·249	−·076	49	31	21	34	−15	2·8	3·6	3·2	+1·7	5	6	11	5	5	3	7	10	10	N. 31° W.	N. 21° E.	18	21	120	74			Khandwa	
03	·409	·430	·381	+·022	53	45	34	44	− 8	3·8	5·3	4·6	+2·5	7	7	7	6	2	13	12	3	5	S. 20° W.	N. 71° E.	13	30	153	93			Nagpur	
12	·350	·318	·327		54	36	24	38		2·9	5·0	4·0		2		22	1	21	2	11	1	2	S. 71° E.		37		45*				Do. (Sanitary Commr.'s Office).	
52	·439	·366	·426	−·011	77	47	29	51	− 9	2·6	3·3	3·0	+1·4	28		1	4	22		4	3		S. 39° E.	S. 51° E.	37	60	88*	90			Hyderabad (Deccan).	
03	·521	·578	·499	−·078	60	61	59	60	− 9	1·3	1·6	1·5	+0·1		7	10	12	2			6	25	N. 6° W.	N. 6° E.	50	58	224	239			Bombay	West Coast.
86	·612	·620	·598	+·009	92	67	55	71	+ 2	1·1	1·6	1·4	+0·7	3	11	7	4	1		1	10	25	N. 31° W.	N. 19° W.	60	53	103	73			Karwar	

‖ Mean of 23 days. ¶ Mean of 21½ days. * Corrected.

Table

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

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 daily pressure.	Variation from normal.	Mean reduced to S.L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
South India.	Periyakulam		29·097	28·954	·143	29·026			89·9	64·5	25·4	94·3	52·0	42·3	79·0	87·9	76·7		62·4	70·8	72·5	68·6
	Salem		·123	·973	·150	·051	0	29·928	91·1	65·7	25·4	94·3	55·4	38·9	80·4	88·2	77·0	+2·5	63·6	69·8	71·2	68·2
	Chitaldroog		27·624	27·498	·126	27·557	+·005	·862	88·8	64·3	24·5	93·0	56·9	36·1	79·5	86·5	76·0	+4·0	56·7	64·0	63·7	61·5
	Bangalore		·046	26·926	·120	26·985	−·003	·888	84·7	59·1	25·6	87·3	52·0	35·3	74·3	82·4	71·3	+3·7	56·4	62·4	62·5	60·4
	Hassan		26·973	·857	·116	·914	+·015	·871	85·8	55·3	30·5	88·5	46·0	42·5	76·6	83·5	70·0	+2·2	52·8	61·7	61·4	58·6
	Mysore		27·529	27·390	·139	27·460	+·005	·878	87·3	61·8	25·5	90·0	53·3	36·7	76·7	85·2	74·0	+2·7	56·8	64·4	63·1	61·4
	Madras		30·056	29·938	·123	29·993	+·002	·946	85·2	67·8	17·4	87·9	62·2	25·7	80·9	81·6	75·9	+0·4		73·5	73·8	72·4
	Bellary		28·556	28·412	·144	28·480	−·021	·891	91·8	64·2	27·6	95·2	55·1	40·1	80·5	89·5	77·2	+4·0	57·2	63·3	65·8	62·1
	Waltair		29·853	29·732	·121	29·793		·962	82·9	70·0	12·9	90·6	67·1	23·5	79·6	79·6	75·6		65·9	71·3	72·5	69·9
Hill Stations, Baluchistan.	Quetta		24·713	24·642	·071	24·668	+·013		42·9	24·8	18·1	58·6	3·2	55·4	35·4	39·4	33·0	−6·6	22·8	31·7	34·8	29·8
Hill Stations, Northern India.	Leh		19·613	19·546	·067	19·581	−·044		25·8	7·4	18·4	34·5	− 6·0	40·5	18·2	23·4	15·7	−2·8	5·7	9·9	14·9	10·2
	Srinagar		24·988	24·904	·084	24·936	−·021		40·1	23·6	16·8	51·5	14·1	37·4	30·8	38·6	31·5	−1·5	23·1	29·3	36·2	29·5
	Kailang	10,087	20·898	20·826	·072	20·861	P		32·9	15·5	17·4	40·1	3·5	36·6	23·6	27·0	21·6	+0·2	14·4	19·9	22·4	18·9
	Simla (Ridge)		23·127	23·073	·054	23·090	−·013		43·5	33·7	9·8	55·8	22·2	33·6	40·1	40·3	37·3	−3·3	30·1	33·6	34·9	32·9
	Chakrata		·309†	**·254	·055	·270†	−·021		46·3†	33·9†	12·4	59·3	26·8	32·5	39·[illegible]	40·5†	38·1†	−3·5	30·4‖	34·7†	35·4†	33·5
	Ranikhet		24·176	24·106	·070	24·126	+·015		51·3	39·2	12·1	61·7	30·0	31·7	45·9	47·6	43·8	−2·2	35·0	39·2	40·1	38·1
	Muktesar		22·892	22·829	·063	22·861			46·8	34·4	12·4	60·4	25·4	35·0	42·6	42·4	39·5		29·5	35·8	35·7	33·7
	Katmandu	4,388	25·673	25·585	·088	25·624	P		61·7	37·8	23·9	68·7	27·2	41·5	47·8	57·8	48·8	−1·5	36·5	44·6	49·4	43·5
	Darjeeling		23·054	22·989	·065	23·016	+·049		46·4	34·6	11·8	52·4	31·0	21·4	41·1‡	43·1‡	39·8‡	+0·5	33·9	38·4‡	40·4‡	37·6
Hill Stations, Central India.	Mount Abu		26·118	26·042	·076	26·068	−·053		63·6	49·8	13·8	71·3	37·0	34·3	59·5	61·1	56·0	−1·6	39·5	45·3	46·6	43·8
	Pachmarhi		·564	·469	·095	·508	−·016		74·4	51·3	23·1	80·2	36·5	43·7	68·0	71·9	60·5	+3·5	46·0	54·8	56·2	52·3
	Chikalda	3,642	·446	·346	·100	·388	−·023		77·5	58·9	18·6	82·8	48·5	34·3	69·6	75·8	66·1	+3·7	48·9	54·2	57·1	53·4
Hill Stations, S. India.	Wellington		24·321	24·247	·074	24·284	+·014		71·4	45·7	25·7	76·0	33·8	42·2	67·0	67·3	57·5	+2·3	42·0	53·3	56·2	50·5
	Kodaikanal		22·905	22·834	·071	22·866			64·6	48·6	16·0	70·9	44·7	26·2	60·7	58·3	55·0		39·6	48·6	52·4	46·9
Extra India.	Aden		30·003	29·899	·104	29·942	+·015	·970	79·0	72·2	6·8	81·7	66·9	14·8	76·7	78·1	75·6	−0·4	66·6	69·0	68·3	68·0
	Perim		29·859	·747	·112	·795	+·029	·932	82·0	73·2	8·8	83·7	69·0	14·7	78·8	79·1	76·9	−0·5	67·4	70·5	70·3	69·4
	Minicoy		·961	·852	·109	·903		·835	85·0			86·0			83·2	82·7				76·1	75·9	
	Zanzibar		·918	·802	·116	·860	+·022	·859	86·1	79·9	6·2	89·8	76·8	13·0	83·1	85·7	82·9	+0·5	75·6	78·2	78·6	77·5
	Port Victoria (Seychelles)	15	·975	·884	·091	·930	+·005	·869	82·4	74·7	7·7	84·7	72·2	12·5	80·9	81·8	78·4	−1·3	72·9	76·4	76·7	75·2
	Mauritius (Pamplemousses)	181				·810	+·041	·937				92·7	64·8	27·9			79·8	+1·0				

† Mean of 24 days. ‡ Mean of 30 days. ** Mean of 28 days.

I—*concluded.*

6 Stations in India, Burma, etc., for January, 1900—concluded.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%	§					
·550	·641	·604	·598		89	63	45	66		2·6	3·9	3·3		9		5	17	15	7	5	2	2	S. 56° E.		47		42*				Periyakulam	South India.
·565	·596	·547	·569	+·005	89	57	39	62	−3	2·8	2·7	2·8	0	19		19	22	2					N. 72° E.	N. 82° E.	63	62	121*	117			Salem	
·372	·410	·310	·364	+·010	61	41	25	42	−4	2·3	3·0	2·7	+0·9		1	5	28	20	2	2	2	2	S. 74° E.	S. 88° E.	68	77	152*	175			Chitaldroog	
·431	·429	·338	·399	−·006	85	51	31	56	−5	1·9	1·9	1·9	−0·6	2		4	35	15	3	2	1		S. 75° E.	N. 88° E.	77	79	192*	111			Bangalore	
·380	·383	·287	·350	−·035	84	42	26	51	−6	3·2	3·6	3·4	+0·3			9	23	22	3	1	2	2	S. 74° E.	N. 87° E.	68	74	58*	75			Hassan	
·411	·457	·306	·391	−·056	73	50	26	50	−10	3·4	3·6	3·5	+0·7		2	10	23	18	3	2	1	3	S. 82° E.	N. 82° E.	63	83	192*	218			Mysore	
	·731	·733	·751	+·097		69	68	84	+9	5·8	3·2	4·5	+0·5		6	22	31	3					N. 68° E.	N. 49° E.	84	78	99	141			Madras	
·390	·375	·341	·369	−·057	63	36	24	41	−11	4·0	5·0	4·5	+2·3	6			14	30	5	1		6	S. 53° E.	S. 68° E.	61	64	106*	81			Bellary	
·585	·658	·707	·650		80	66	70	72		3·5	2·9	3·2					28	11	4	14	5		S. 44° E.		48		101				Waltair	
·108	·146	·159	·138	−·020	77	71	69	72	+5	4·4	4·3	4·4	+0·3	31					7	2	12	10	S. 86° W.	N. 85° W.	32	25	50*	74			Quetta	Hill Station, Baluchistan.
·046	·018	·043	·036	−·036	74	18	37	43	−24	5·9	7·6	6·8	+0·2			1	1	1	11	35	12	1	S. 45° W.	S. 10° W.	81	29	38	22			Leh.	Hill Station, Northern India.
·118	·146	·195	·153	−·001	93	84	80	86	+4	4·9	6·4	5·7	−2·2	22	9	6	4	9	4		4	4	N. 54° E.	S. 37° E.	16	10	56*	71			Srinagar.	
·078	·082	·086	·082	−·006	85	64	61	70	−1	6·9	7·9	7·4	+0·7		2	1	1	8	6	7	14	23	N 85° W	S 66° W	45	52	19	20	3·02	1·14	Kailang.	
·134	·129	·150	·137	−·010	73	56	64	64	+6	6·0	7·4	6·7	+1·1	15	1	5	2	4	25	9			S. 4° E.	S. 7° E.	48	31	132	128			Simla (Ridge)¶	
·138‖	·151†	·157†	·149	−·007	74‖	64†	65†	68‖	+6	6·1†	5·8†	6·0	+1·4	13	20	1		4	17			1	N. 62° E.	S. 84° W.	5	5	212‖	123			Chakrata.	
·162	·174	·173	·170	−·023	69	58	56	61	−2	5·8	5·3	5·6	+1·5	28	1	9	7	3	2	6	5	1	S. 82° E.	S. 51° W.	8	15	59*	44			Ranikhet.	
·117	·143	·143	·134		61	57	57	58		6·7	6·9	6·8		20	1	3	8	22	2	2		4	S. 59° E.		40		190*				Muktesar.	
·207	·261	·258	·233	−·016	89	78	56	74	+1	4·3	4·9	4·6	+1·3	1	1		10	9	2	3	29	7	S. 77° W.	N. 76° W.	32	49	22	21	4·88	3·25	Katmandu.	
·181§	·206‡	·225‡	·204	+·001	90§	80‡	81‡	84	+3	6·0‡	6·9†	6·5	+0·8	9	1		3	5	1	13	23	7	S. 76° W.	S. 89° W.	52	22	121*	88			Darjeeling	
·132	·147	·157	·145	−·062	36	29	28	31	−12	4·1	4·5	4·3	+1·9	2	6	8	2	7	6	13	8	10	S. 83° W.	N. 60° W.	19	11	168*	119			Mount Abu.	Hill Stations, C. India.
·256	·282	·272	·270	−·014	66	41	35	47	−8	4·5	5·3	4·9	+2·6	20	6	2	1	3	1	14	8	7	S. 88° W.	N. 79° W.	29	10	97*	78			Pachmarhi.	
·206	·249	·259	·248	−·061	47	34	29	37	−15	2·5	3·0	2·8	+0·6	35	7				6	10	2	2	S. 66° W.	S. 40° W.	18	24	‡ 162*	123	0·23	0·12	Chikalda.	
·239	·272	·342	·284	−·018	41	43	52	45	−23	2·5	2·6	2·6	−0·6	1	2	2	3	43	10				S. 43° E.	S. 27° E.	82	65	52	52			Wellington.¶	Hill Stations, S. India.
·167	·227	·338	·244		49	45	70	55		3·4	5·7	4·6			1	2	2	55	2				S 48° E.		92		258				Kodaikanal.	
·583	·609	·562	·585	−·055	73	66	58	66	−6	5·5	3·0	4·3	+0·5			15	21	23		3			S. 80° E.	N. 89° E.	74	70	338‡	319			Aden.	Extra India.
·599	·640	·630	·623	−·039	70	65	63	66	−4	4·8	2·2	3·5	+1·1	6		10	12	21	11			2	S. 62° E	S. 63° E.	60	78	498*	472			Perim.	
	·811	·808				71	72			2·7	2·3	2·5			25	28	7	1				1	N. 31° E.		84		131*				Minicoy.	
·828	·899	·883	·870	+·020	81	80	72	78	+1	6·6	5·4	6·0	+1·6		16	25	10	2	6	2	1		N. 47° E.	N. 35° E.	58	69	172*	196			Zanzibar.	
·789	·852	·857	·833	+·013	91	80	79	83	+3	6·8	6·5	6·7	−0·3	5	5	5	4	2	2	2	12	25	N. 46° W.	N. 43° W.	50	66	127	144	18·53	3·00	Port Victoria (Seychelles).	
			·721					74	−2																		211	266	3·35	1·22	Mauritius (Pamplemouses)	

§ Mean of 25 days ‖ Mean of 27 days. ¶ Wind variable 1. * Corrected.

G. I. C. P. O.—No. 145 Metea.—5-6-1900—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 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 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 variation of the mean 8 a.m. pressure of the month from the normal by means of lines drawn for equal amounts variation (of two hundredths of an inch or ·020″). The numbers are given in thousandths of an inch, 20 representing ·020″ or two ndredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to e lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines ar to each other, one continuous and the other broken or dotted, represent the line of no variation, the dotted line facing the area of ficient pressure or negative variations.

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

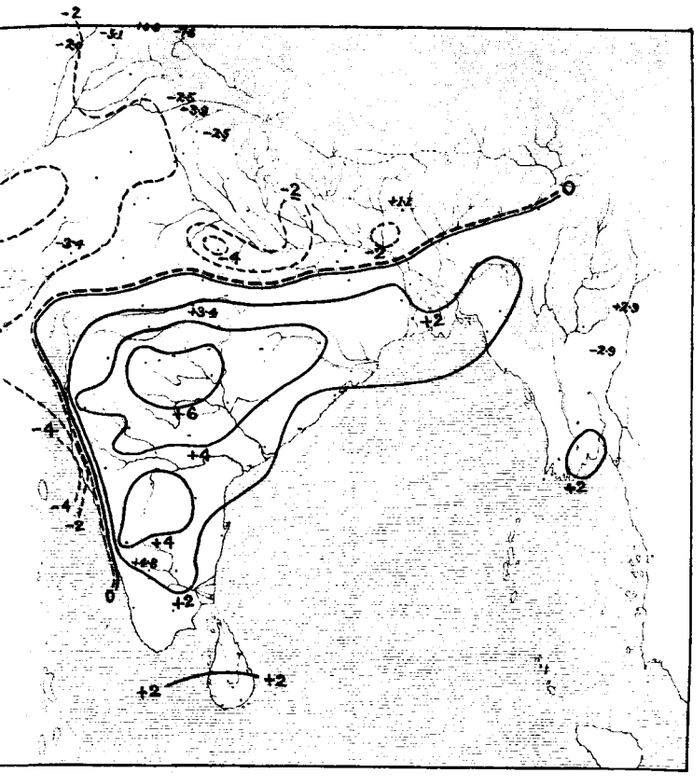
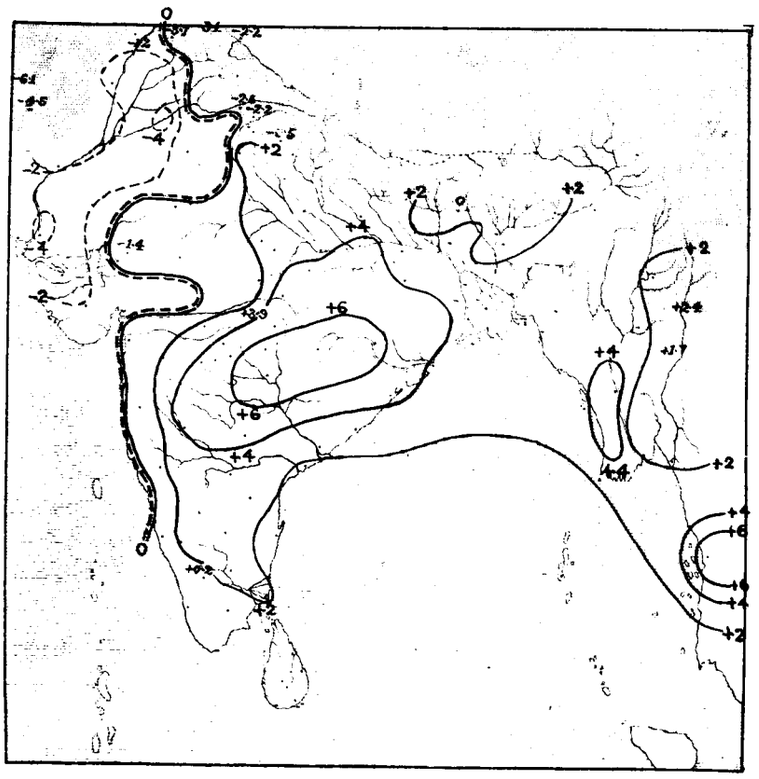


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

ntinuous lines indicate that the mean maximum of month was in cess by amounts indicated by the attached numbers. Broken or dotted es that it was in defect by the amounts indicated by the attached mbers. Double lines are the lines of no variation, the broken line facing e 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 the 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.

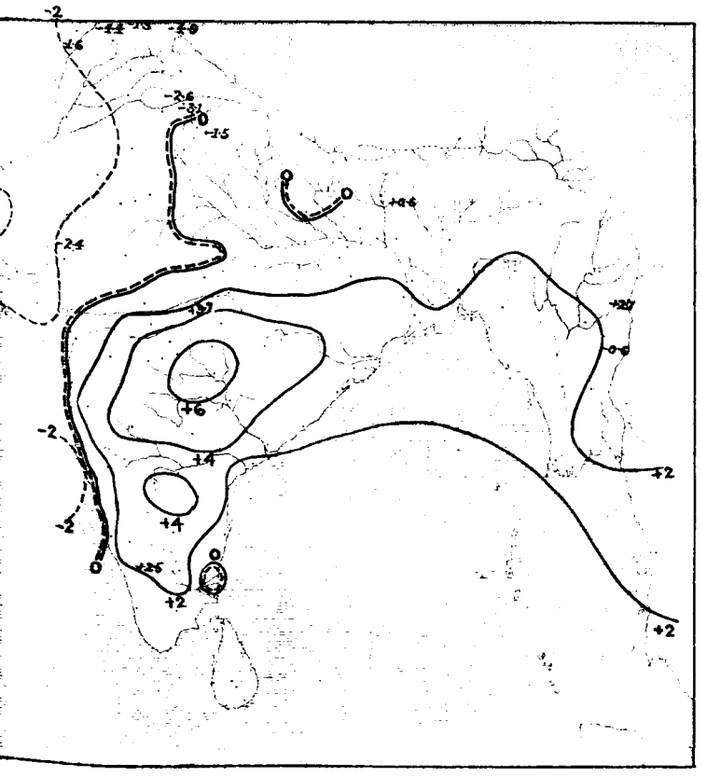
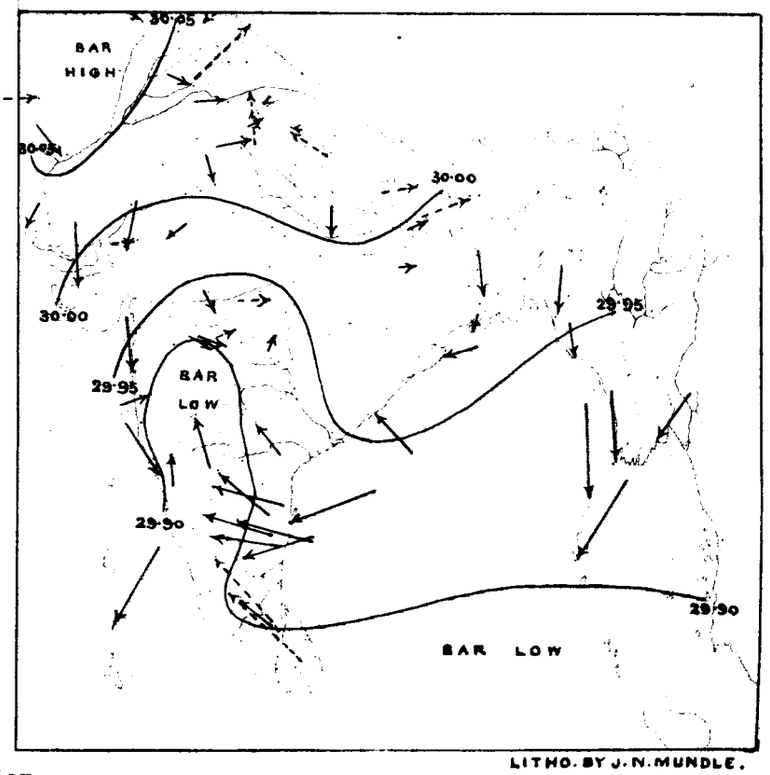


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF JANUARY 1900.

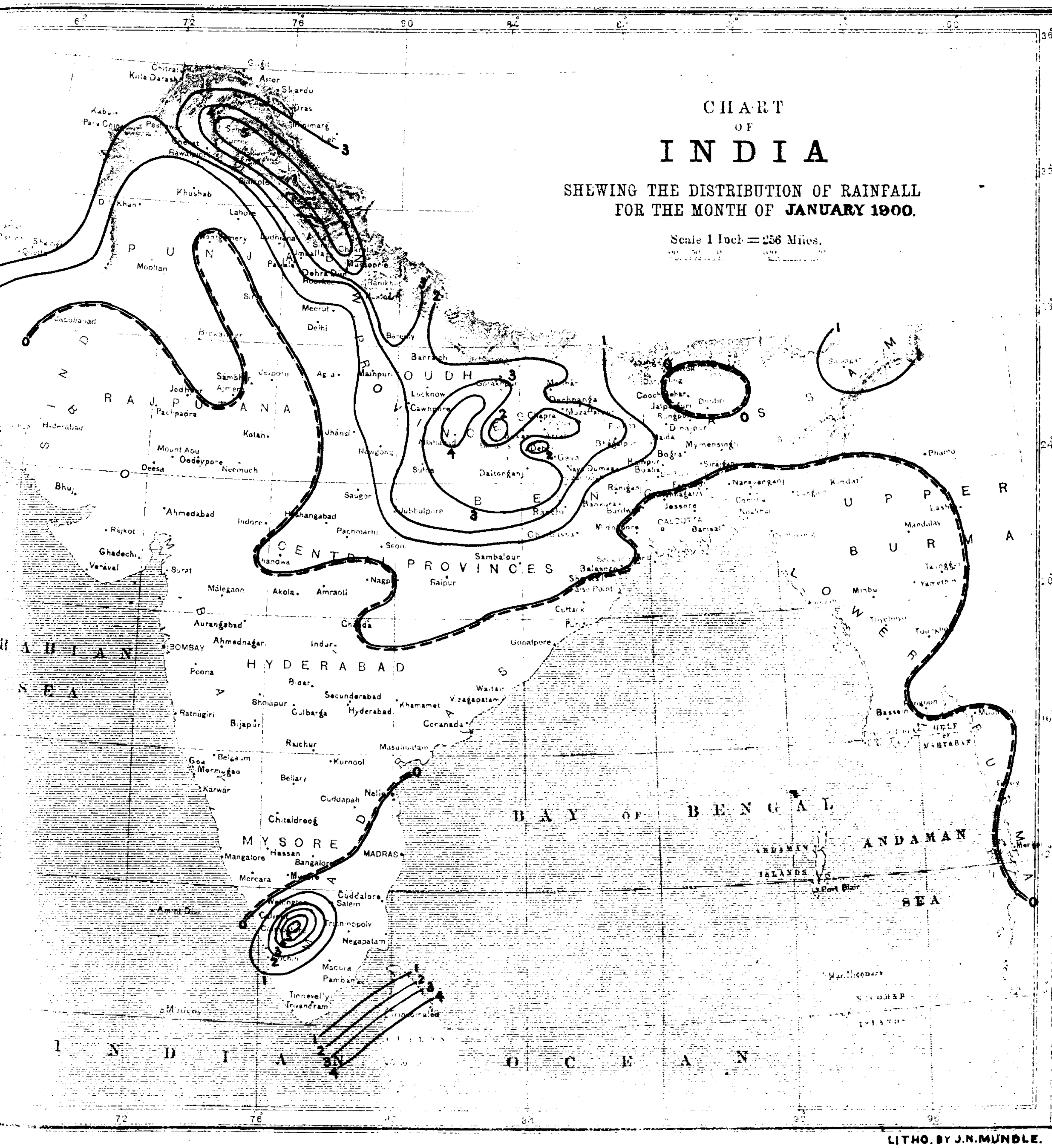


LITHO. BY J. N. MUNDLE.

Explanation.

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

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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



Explanation.

Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The ... in the preparation of this Chart are the rainfall returns of all the observatories in India (182 in number), except those at the ... over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall ... a tenth of ... from those 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 variations of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and rma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish able and useful means. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers en in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean fall 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 amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller res enclosed within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained eferring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

Tenasserim
Lower Burma Deltaic
Central do.
Upper do.
Arakan
East Bengal
Assam, Surma
Do., Hills
Do., Brahmaputra
Deltaic Bengal
Central do.
North do.
Bengal Hills
Orissa
Chota Nagpur
South Bihar

17. North Bihar
18 North Western Provinces, East
19. South Oudh
20. North do.
21. North Western 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. North Punjab
32. West do.

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
47. Sind

48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. East Coast, North
52(a). Do. do. (a)
53. Hyderabad, South
54. Madras, Central
55. East Coast, Central
56. East Coast, South
57. Madras, South

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

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CALCUTTA, FEBRUARY, 1900.

INTRODUCTION.

THIS review of the weather in India during the month of February 1900 is based on observations taken daily at 8 A.M. at 220 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 weekly rainfall telegrams received during the month from the District Officers throughout India, 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 given.

Summary of the chief features of the weather in India during the month of February, 1900.

During the first five days of the month anti-cyclonic conditions of pressure prevailed over India, the highest pressures having been reported from the extreme north-west of India and the lowest from the south of the Bay. During this time the winds were light from the northward (north-west and north-east) and the weather fine, except on the 1st, when some light showers of rain and snow were reported from the north-west frontier, Baluchistan, the eastern districts of the North-Western Provinces and Bihar. In consequence of these light showers the mean temperature was somewhat unsteady in the extreme north-west. The following gives the mean variations of temperature from the normal, day by day, from the 1st to the 5th, for Baluchistan, Sind, Rajputana and the Punjab and shows the advance of a feeble cold wave in consequence of these showers—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	1st February.	2nd February.	3rd February.	4th February.	5th February.
	°	°	°	°	°
Baluchistan . .	+0·3	−5·5	−10·2	−10·8	−10·7
Sind	−0·3	+3·0	− 1·5	− 2·4	− 2·5
Rajputana . .	+5·6	+4·5	+ 2·8	+ 3·1	+ 1·2
Punjab . . .	+3·6	+4·4	+ 3·0	+ 0·8	− 2·5

In other parts of India the excessive temperatures, which were a result, in part of the fine weather actually experienced during these five days, and in part of the

exceptionally fine weather of several preceding months, continued uninterruptedly and were particularly strongly marked across the head of the Peninsula. The following gives comparative data for Berar, the Central Provinces, Orissa and Chota Nagpur from the 1st to the 5th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	1st February.	2nd February.	3rd February.	4th February.	5th February.
	°	°	°	°	°
Berar	+8·2	+6·6	+5·7	+4·4	+6·0
Central Provinces	+9·3	+7·4	+6·7	+6·1	+6·1
Orissa	+4·2	+4·7	+6·8	+5·9	+4·5
Chota Nagpur	+4·2	+9·4	+7·3	+4·9	+5·3

The first disturbance of the month apparently originated in West Persia on the 5th and 6th, when rain, snow and strong squally winds were reported. The storm apparently entered South Baluchistan on the morning of the 7th, was shown over Sind and South Rajputana on the 8th, and filled up over the North-Western Provinces on the 9th. The storm gave rain to the submontane regions of Upper India and rain and snow to the North-West Himalayas and Baluchistan. It was throughout a feeble disturbance and the changes in temperature accomp anying it were insignificant.

Whilst this disturbance was disappearing or filling up the weather became cloudy and unsettled over Persia, Afghanistan and Baluchistan, though well marked anti-cyclonic conditions prevailed over North-West India. A depression apparently formed over Baluchistan on the 9th, entered Sind and Rajputana on the 10th, Central India and the North-Western Provinces on the 11th, and Bengal on the 12th. Baluchistan and the North-West Himalayas received light to moderate snow and the Punjab light rain on the 11th and Bengal light rain on the 12th. The storm was followed by a feeble cold wave. The following gives data from the 9th to the 14th for Baluchistan and North-West India in illustration.

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	9th Feb.	10th Feb.	11th Feb.	12th Feb.	13th Feb.	14th Feb.
	°	°	°	°	°	°
Baluchistan	+6·4	+8·3	+1·5	−2·7	−1·9	+1·0
Sind	+3·0	+5·2	+4·5	+2·0	−0·4	+1·7
Gujarat	+7·7	+7·1	+4·0	−0·4	−1·5	−2·0
Rajputana	+7·8	+7·5	+6·3	+3·5	+2·7	+1·2
Punjab	+1·7	+6·2	+1·5	−0·2	−0·5	−0·7
Central India	+5·6	+5·7	+7·8	+4·5	+3·2	+1·3

Another depression developed over Asiatic Turkey and West Persia on the 11th and 12th. The disturbance advanced slowly and was passing the entrance to the Persian Gulf on the 15th and entered Upper Sind on the 16th. Thence it advanced through the Southern Punjab into the North-Western Provinces and filled up on the 19th. Although the disturbance was only of moderate intensity it occasioned a fair fall of snow on the hills and of rain on the plains of Northern India. The following were the amounts exceeding one and a half inches:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kangra	Nagar	17th Feb.	2·15
Rawalpindi	Murree	,, ,,	1·80
Nadia	Ranaghat	18th Feb.	2·73
Murshidabad	Lalgola	,, ,,	2·00
Midnapore	Garhbeta	,, ,,	1·93
Bankura	Vishnupur	,, ,,	1·80
Nadia	Chuadangah	,, ,,	1·65
Khulna	Dumuria	,, ,,	1·56
Backergunge	Pirojpur	,, ,,	1·53
Purnea	Araria	19th ,,	2·13
Jalpaiguri	Debiganj	,, ,,	2·00
Khulna	Kaliganj	,, ,,	2·00
Chittagong	Mirsarai	,, ,,	1·65
Dacca	Jeydebpur	,, ,,	1·60

The depression was preceded by very high temperatures in Baluchistan, as is shown by the following variation data for Quetta and Chaman:—

Province or Division.	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
		14th February.	15th February.	16th February.	17th February.
		°	°	°	°
Baluchistan	Chaman	+1·4	+2·8	+5·4	−0·4
	Quetta	+0·6	+1·9	+10·2	+1·7

After the occurrence of snow the temperature fell and a slight reduction of temperature took place. The following variation data indicate the changes of temperature

which occurred in Northern India during the passage of the storm (16th to 19th):

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	16th February.	17th February.	18th February.	19th February.
	°	°		°
Bengal	+0·4	+2·5	+4·1	+2·0
Bihar	−0·8	−0·2	+2·0	+3·0
Chota Nagpur	+3·1	+3·8	+4·7	+4·4
N.-W. Provinces and Oudh	−0·2	+3·3	+4·0	+1·2
Punjab	+3·3	+0·8	+0·2	+0·6
Baluchistan	+7·8	+0·7	−2·3	+3·0
Sind	+3·5	+3·6	+0·7	+2·3
Rajputana	+2·3	+6·6	+3·6	+0·3
Gujarat	+0·8	+3·5	+0·6	−1·1
Central India	+1·0	+4·6	+3·2	+0·6

It will be observed that the reduction of temperature in North-West India was small, a result due to the general lightness of the snowfall.

On the 18th, before the former depression had disappeared, the barometer was falling again briskly to rapidly in Persia and on the following day (the 19th) a feeble disturbance had appeared over the Eastern Persian area. This depression entered Sind on the 20th, but it gave no rain and throughout its existence was of very slight importance. It disappeared on the 21st. It was accompanied with high temperatures in Baluchistan and North-Western India, as is shown by the following comparative data:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	20th February.	21st February.	22nd February.
	°	°	°
Baluchistan	+3·0	−1·9	+1·0
Sind	+4·0	+3·5	+3·0
Rajputana	+0·3	+2·1	+2·7
Punjab	+2·2	+3·9	+3·8

A depression appeared to be forming in Persia or Baluchistan on the 21st. It was passing through Southern Baluchistan on the 22nd and had entered Sind on the 23rd. Thence it advanced eastward into Eastern Rajputana, Central India and the west of the North-Western Provinces, afterwards passing into the eastern districts of the North-Western Provinces and disappearing over Bengal on the 26th. While this storm was passing through Rajputana on the 24th, a moderate secondary depression was developed over the Punjab. This secondary depression broke up among the Simla and Mussooree hills on the morning of the 25th, after giving very rough weather and a good deal of snow to the hill districts of Northern India. These storms and the accompanying rainy, snowy weather were followed by a reduction of temperature over Northern India and the passage of a fair cold wave across the northern districts. The following gives variation data from the 23rd to the 28th for the northern provinces:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M.					
	23rd February.	24th February.	25th February.	26th February.	27th February.	28th February.
	°	°	°	°	°	°
Bengal	−1·0	−0·4	+0·5	+0·6	+2·1	−1·9
Bihar	−0·9	+0·4	+2·3	−0·1	+0·6	−2·5
Chota Nagpur	−1·0	+3·3	+0·5	+2·8	−0·5	−2·5
North-Western Provinces and Oudh.	+0·1	+3·7	+2·9	+1·2	−0·5	−0·4
Punjab	+5·6	+2·6	−1·3	+0·2	+1·0	+4·2
Baluchistan	+2·6	−4·1	−6·2	−2·2	?	+7·9
Sind	+6·5	+1·5	−0·4	−0·1	+1·9	+1·7
Rajputana	+4·5	+4·3	−0·3	−2·0	−1·1	+1·1
Gujarat	+1·3	+1·7	−0·3	−1·2	−0·3	+0·2
Central India	+2·1	+5·3	+3·9	−1·5	−2·3	−0·9

A depression, which was the last of the month, developed over Eastern Persia on the 24th and 25th. It advanced slowly eastward passing through Baluchistan on the 27th, and entering Sind and the Southern Punjab on the 28th. The depression was of little importance and gave little or no rain either to the Persian area or to North-West India. As is shown by the preceding table the approach of the storm to North-West India was preceded and accompanied by excessive temperatures.

During the whole of the month, while the weather in Persia, Baluchistan and Northern India was feebly, but almost constantly, disturbed by the passage of the depressions described above, conditions over the central parts of the country, the Peninsula and Burma, were quiet and undisturbed. There was practically no rain in these areas throughout the month and, though the temperature has oscillated slightly, the heat was generally more or less excessive.

Pressure.—The variations of the mean pressure conditions of the month from the normal were, as was the case in the two preceding months, small and unimportant. The mean pressure of the Indian land area for February 1900 was 0.008″ below the normal. There was a slight deficiency of pressure over the north of the Indian land area and this deficiency extended westward as far as Bushire and Aden, while, on the contrary, there was a slight excess of pressure over the west and south of the Peninsula and this extended south-ward as far as Zanzibar. Pressure on the mean of the month was more or less above the normal at most of the hill stations, the excess having been greatest and more than 0.04″ at Leh and Darjeeling. The vertical anomalies were positive and considerable in the Himalayan hill regions while, on the contrary, they were small and generally negative in the central and southern hill districts. The following table gives the mean pressure variations and anomalies of the month for the eleven meteorological provinces of India:—

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A.M. pressure of February 1900.	Pressure anomaly, February 1900.
	″	″
Burma Coast and Bay Islands	—·007	+·001
Burma Inland	+·012	+·020
Assam	—·008	0
Bengal and Orissa	—·015	—·007
Gangetic Plain and Chota Nagpur	—·019	—·011
Upper Sub-Himalayas	—·008	0
Indus Valley and North-West Rajputana	—·006	+·002
East Rajputana, Central India and Gujarat	—·006	+·002
Deccan	—·013	—·005
West Coast	+·002	+·010
South India	—·007	+·001

Temperature was, during by far the greater part of the month, above the normal over Northern India and was almost uninterruptedly above the normal over the central parts of the country and the centre and east of the Peninsula. This was in part due to the absence of severe cold weather storms though there was a good deal of disturbed weather.

The mean day temperature was below the normal in Baluchistan and at Peshawar; along the West Coast; in the east of the North-Western Provinces and at the head of the Assam Valley and was above the normal over the whole of the remainder of India. The negative variations were small, but approached 2° at Chaman (—1·9°) and Ratnagiri (—1·8°). The positive variations on the contrary were considerable to large, and exceeded 5° at Chaibassa (+5·7°), Chanda (+5·6°), Cuddapah (+5·1°) and Seoni (+5·0°). Except at Srinagar, the mean day temperature of the month was generally lower than usual at the north-west hill stations, but in the north-east, centre and south the mean maximum temperature was greater than usual at the elevation of the hill stations.

The mean minimum or night temperature was below the normal average only at a few stations along the West Coast, and there the variation was very small. Over the whole of the remainder of India the mean minimum temperature was higher than usual. The excess was considerable to large over the areas defined by the stations for which comparative data are given below:

AREA.	STATION.	MEAN MINIMUM TEMPERATURE Actual, February	Normal, February	Variation of actual from norma, February 1900.
		°	°	°
1ST AREA	Jaipur	54·4	50·0	+4·4
	Ajmer	52·7	48·4	+4·3
2ND AREA	Jhansi	58·8	54·2	+4·6
	Sunta	55·1	51·0	+4·1
	Saugor	58·2	54·2	+4·0
3RD AREA	Mergui	73·4	68·6	+4·8
4TH AREA	Balasore	66·8	60·2	+6·6
	Sambalpur	65·8	59·5	+6·3
	Chanda	65·0	58·8	+6·2
	False Point	69·9	64·3	+5·6
	Saugor Island	70·4	65·1	+5·3
	Barisal	63·4	58·1	+5·3
	Cuttack	70·2	65·1	+5·1
	Bellary	69·7	64·8	+4·9
	Hyderabad (Deccan)	67·5	62·7	+4·8
	Calcutta	64·4	59·8	+4·6
	Secunderabad	67·2	62·7	+4·5
	Chaibassa	61·4	56·9	+4·5
	Sholapur	66·0	61·7	+4·3
	Narayanganj	62·0	57·8	+4·2
	Jessore	60·8	56·6	+4·2
	Mymensing	57·7	53·6	+4·1
	Chittagong	62·5	58·5	+4·0
	Raichur	72·2	68·2	+4·0

The variations of the mean night temperatures from the normal at the hill stations were generally small and unimportant except at Srinagar where on the mean of the month the night temperature was in considerable excess.

The variations of the mean temperature of the month showed excessive temperatures in all parts of the plains of India except at a few stations along the West Coast where there was a deficiency ranging from 0·2° at Karwar to 0·9° at Ratnagiri. Over the whole of the remainder of India the mean temperature exceeded the normal. The variations exceeded 2° over by far the greater part of the country and were more than 4° in amount at the stations for which comparative data are given below:—

STATION.	MEAN DAILY TEMPERATURE.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Chanda	81·1	75·2	+5·9
Chaibassa	75·4	70·3	+5·1
Balasore	76·7	71·8	+4·9
Sambalpur	78·3	73·7	+4·6
Saugor Island	77·5	73·0	+4·5
Barisal	73·6	69·1	+4·5
Secunderabad	81·3	76·9	+4·4
Cuddapah	85·7	81·3	+4·4
Bellary	83·7	79·5	+4·2
Hyderabad (Deccan)	80·9	76·8	+4·1
Raipur	77·5	73·4	+4·1

At the north-west Hill Stations the variations of the mean temperature of the month from the normal were generally small and negative, while on the contrary, at the North-Eastern, Central and Southern Hill Stations the variations were moderate and positive.

The following table gives temperature variation data of the month of February 1900 for the eleven meteorological provinces of India.

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, February 1900.	Mean minimum temperature, February 1900.	Mean daily temperature, February 1900.
	°	°	°
Burma Coast and Bay Islands	+1·2	+3·5	+2·4
Burma Inland	+1·6	+2·3	+2·0
Assam	+0·8	+2·1	+1.5
Bengal and Orissa	+2·2	+4·6	+3·4
Gangetic Plain and Chota Nagpur.	+1·2	+2·8	+2·0
Upper Sub-Himalayas	+1·2	+1·9	+1·6
Indus Valley and North-West Rajputana.	+2·1	+1·3	+1·7
East Rajputana, Central India and Gujarat.	+2·2	+2·5	+2·3
Deccan	+3·7	+3·2	+3·5
West Coast	—0·1	+1·2	+0·5
South India	+2·7	+2·4	+2·6

Winds.—The wind was stronger than usual at Diamond Island, but was generally weaker and less steady than usual over the east of the Bay. In the Gangetic Plain the air movement was very nearly normal, while over the Punjab, Sind and Rajputana the direction was more westerly than usual, while the steadiness was about the normal and the velocity was generally low.

On the west coast of the Peninsula the wind direction as over North-West India, was more westerly than usual, but in other parts of the Peninsula the variations from the normal were irregular.

The air movement over the Bay of Bengal and the Arabian Sea was on the mean of the month about the normal.

Humidity.—The air continued drier than usual over the greater part of the country and, as in the preceding three or four months, the deficiency in the humidity was largest and most pronounced within an area which covered the west of the Central Provinces, Berar and the Bombay Deccan. The air was damper than usual over Baluchistan, the greater part of the Punjab, West Bengal and the Bay area. In the Deccan the air was very dry, while there was a general and considerable excess of temperature. Consequently there was a large deficiency in the relative humidity, the variations amounting to —10 or more at the stations for which data are given below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal February 1900.
	"	"	"	%	%	
Buldana	·148	·277	—·129	17	34	—17
Khandwa	·198	·307	—·109	23	40	—17
Sholapur	·225	·320	—·095	22	35	—13
Nagpur	·287	·337	—·050	32	42	—10

In this area there was a period of very low humidity during the second week in the month when readings between 5% and 9% were recorded.

The following gives variation data of the mean aqueous vapour pressure, and mean humidity of nine meteorological provinces for the month of February 1900:—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, February. 1900.	Variation of actual from normal, February 1900.	Average actual, February 1900.	Variation of actual from normal, February 1900.
	"	"	%	
Burma Coast and Bay Islands	·722	+·035	70	0
Bengal and Orissa	·646	+·092	73	+1
Gangetic Plain and Chota Nagpur	·358	+·036	57	+3

Meteorological Province.	Mean Absolute Humidity.		Mean Relative Humidity.	
	Average actual, February 1900.	Variation of actual from normal, February 1900	Average actual, February 1900.	Variation of actual from normal, February 1900.
	"	"	%	
Upper-Sub-Himalayas	·280	—·011	57	—4
Indus Valley and North West Rajputana.	·293	+·002	51	—2
East Rajputana, Central India and Gujarat.	·204	—·039	29	—8
Deccan	·266	—·057	30	—9
West Coast	·606	—·020	69	—2
South India	·458	+·006	49	—3

Cloud.—There was slightly less cloud than usual over the South and East Punjab, the Western desert and North Bombay and considerably less than usual over parts of the West Coast and of the Bombay Deccan. The cloud amount was also slightly to moderately less than usual over South Madras and Lower Burma. Over nearly the whole of the remainder of India the cloud amount was in excess of the normal. The excess was considerable to large over Deltaic and South-West Bengal, and amounted to 2·8 at False Point, 2·5 at Saugor Island; 1·7 at Calcutta and 1·2 at Chittagong. At the Himalayan stations the amount of cloud was in slight or moderate excess.

The following table gives variation data of the mean cloud amount of nine meteorological provinces for the month of February 1900 :—

Meteorological Province.	Mean Cloud Amount.	
	Average actual, February, 1900.	Variation of actual from normal, February 1900.
Burma Coast and Bay Islands	1·8	—0·3
Bengal and Orissa	4·2	+2·1
Gangetic Plain and Chota Nagpur	2.2	+0·2
Upper Sub-Himalayas	3·8	0
Indus Valley and North-West Rajputana	3·5	—0·1
East Rajputana, Central India and Gujarat	2·8	+0·1
Deccan	1·6	0
West Coast	3·1	+0·2
South India	2·1	+0·1

Rainfall.—There were, in all, six periods of disturbed and rainy weather during the month under review, but the disturbed periods were slight both in intensity and extent, and the rainfall of the month was generally below the normal except in the North Punjab, the west and centre of the Central Provinces, part of North-East India and in the East Coast North (*a*) where there was some excess.

The periods of disturbance and of rainfall occurred:—On the 1st and 2nd; the 7th to the 9th; the 10th to the 12th; the 14th; the 16th to the 19th; and the 24th to the 27th.

The rainfall of the month was absolutely or practically *nil* over Burma, a large part of the Gangetic Plain, the South-East Punjab, Bombay, Berar, Rajputana, Gujarat, Sind, Central India and the greater part of Madras. The rainfall was in excess in nine divisions only, *viz.*, East Bengal (+ 72 %), Assam Hills (+ 23 %), Deltaic Bengal (+ 47 %), North Bengal (+ 50 %), North Bihar (+ 4 %), North Punjab (+ 11 %), the west of the Central Provinces (+ 33 %), the centre of the Central Provinces (+ 25 %) and the North (*a*) of the East Coast (+ 76 %), and was more or less in defect over all the remaining area of rainfall.

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

Meteorological Province.	Rainfall.			
	Mean actual for February 1900.	Mean normal for February.	Variation of actual from normal, February 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
Burma Coast and Bay Islands	0·49	0·54	—0·17*	— 31
Burma Inland	0·02	0·17	—0·15	— 88
Assam	1·05	1·59	—0·54	— 34
Bengal and Orissa	1·18	0·93	+0·25	+ 27
Gangetic Plain and Chota Nagpur	0·35	0·54	—0·23*	— 43
Upper Sub-Himalayas	0·58	1·17	—0·60	— 51
Indus Valley and North-West Rajputana.	0·24	0·42	—0·18	— 43
East Rajputana, Central India and Gujarat.	0	0·17	—0·17	—100
Deccan	0·07	0·19	—0·13*	—68
West Coast	0·01	0·15	—0·14	— 93
South India	0·02	0·28	—0·26	—93

* A reference to table I will show that the means in 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.

Atmospheric Pressure.

The small variations from the normal which had commenced in December 1899 and which were in such marked contrast to the large variations reported during the autumn months of 1899, continued during February 1900.

The mean pressure of the Indian land area for February 1900 was 0·008″ below the normal. The mean pressure of the month was hence very nearly normal. The slight deficiency of pressure which prevailed over the north of the Indian land area extended westward as far as Bushire and Aden, while the slight excess of pressure, which prevailed over the west and south of the Peninsula and the south of the Bay extended as far south as Zanzibar, but the principal characteristic of the pressure conditions was the generally small variations reported.

Relatively to the general condition pressure was in slight excess in the North Punjab. The principal anomalies were as follows:—

Station.	Variation from normal of mean 8 A. M. pressure of February 1900.	Pressure anomaly, February 1900.
	″	″
Rawalpindi	+·023	+·031
Sialkot	+·015	+·023
Khushab	+·014	+·022

Over the remainder of Northern India, as well as over the centre and east of the Peninsula and Burma, pressure was generally in defect. The anomalies were small except in Orissa and the east of the Central Provinces. The following gives comparative data for the stations in this area:—

Station.	Variation from normal of mean 8 A. M. pressure of February 1900.	Pressure anomaly, February 1900.
	″	″
Sambalpur	—·037	—·029
Cuttack	—·035	—·027
False Point	—·029	—·021

In Lower Sind, Gujarat, the west of the Central Provinces, the west and south of the Peninsula and the south and centre of the Bay, pressure was in excess, but the anomalies were small, in no case amounting to 0·02″.

Pressure on the mean of the month was more or less above the normal at most of the hill stations, but at Mount Abu, Pachmarhi and Wellington pressure was in slight defect. The amount of the excess varied considerably. It was greatest and amounted to 0·043″ at Darjeeling and Leh.

The vertical anomalies were positive except at the more central stations, as is shown by the following data for ten pairs of stations:—

Hill Station.	Variation of actual from normal pressure, February 1900.	Plain Station.	Variation of actual from normal pressure, February 1900.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Leh	+·043	Lahore	—·006	+·049
Quetta	+·017	Jacobabad	—·023?	+·040?
Murree	+·038	Peshawar	—·007	+·045
Simla	+·005	Ludhiana	—·006	+·011
Chakrata	+·016	Roorkee	—·014	+·030
Ranikhet	+·009	Bareilly	—·019	+·028
Darjeeling	+·043	Dhubri	—·013	+·056
Mount Abu	—·013	Deesa	—·010	—·003
Pachmarhi	—·010	Hoshangabad	+·003	—·013
Wellington	—·003	Coimbatore	—·005	+·002

The chief abnormal features in the pressure distribution were, the slight deficiency of pressure over the Gangetic Plain and South-West Bengal, and the slight excess of pressure along the West Coast.

The chief features of the pressure distribution of February 1900 were as follows:—

(1) Small variations from the normal in all parts of the monsoon area.

(2) Slight high pressure areas in the extreme north-west and extreme north-east, and a slight low pressure area over the extreme south-east of the Bay.

(3) More uniform pressures than usual except in the extreme north-west.

(4) Slight positive vertical pressure anomalies except in the central districts.

Barometric depressions and cyclonic storms of the month.

During the first five days of the month very quiet weather prevailed over the Indian region. The barometer read above the normal over North-West India and anti-cyclonic conditions with light winds, from between north-west and north-east, were shown over Northern India. From the 1st to the 3rd these anti-cyclonic conditions were accompanied with a large excess of temperature, but on the 3rd lower temperatures than usual appeared over Balu-

chistan, and these relatively low temperatures gradually spread eastward over Sind, the Punjab, and the west of Rajputana. On the 5th, conditions became unsettled over Asiatic Turkey and the west of Persia, and, from that date onward till the close of the month, the weather was uninterruptedly disturbed in some part of the Indian region, though in most cases the amount of the disturbance was small and the storm generally feeble. The following is an account of these disturbances and storms.

Disturbance of the 5th to the 8th.—On the 5th pressure was in considerable to large excess over North-West India and Baluchistan, with light winds, and fine cool weather, but in Persia the barometer was beginning to give way briskly to rapidly. The following gives data for 8 A.M. of 5th for the Persian stations :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Baghdad .	30·094	—·179	—·096	Calm	0	8	...	
Teheran .	—	—·008	—	—	2	9		Frosty
Ispahan .	—	—·040	—	W	3	10		
Bushire .	29·926	—·168	—·175	SE	6	10	...	Sea smooth
Jask .	...	—·106	+·069	NE	6	10	...	

On the following day, the 6th, the barometer was falling briskly to rapidly over North-West India and Baluchistan and the anti-cyclonic area had moved south-eastward and was central over Rajputana. The barometer had continued to fall briskly to rapidly over Asiatic Turkey and Persia. The following gives data for the stations in this area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Baghdad .	299·68	—·126	—·208	NNW	3	10	...	
Teheran .	—	? +·030	—	—	1	9		Snowing.
Ispahan .	—	—·220	—	ESE	4	10		
Bushire .	29·924	—·002	—·173	NW	16	8	2·61	Showery.
Jask . .	...	—·204	—·136	E	27	10	...	Gale of wind.

Strong winds were blowing, at Jask from east, and at Bushire from north-west, and a depression apparently occupied the Persian Gulf region. Light snow had fallen at Teheran and heavy rain (2½ inches) at Bushire.

February 7th.—The observations for this date showed that pressure had commenced to increase in Persia and the sky to clear, though rain and snow had been received at some stations. The following gives data for 8 A.M. for the Persian stations :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Baghdad .	30·111	+·143	—·056	ENE	3	8	...	Cloudy.
Teheran .	—	? —·300	—	—	1	2	...	
Ispahan .	—	+·070	—	Calm	0	8	...	
Bushire .	30·061	+·137	—·033	ENE	1	0	0·12	Showery and sea smooth.
Jask . .	...	+·082	—·052	NNE	12	7	1·24	Continuous rain.

On the other hand pressure had decreased briskly in Baluchistan and the Western desert and a depression was passing through South Baluchistan. The following gives 8 A.M. data for the area affected by the storm :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Chaman .	...	—·100	—·063	N	3	10	0·01	
Quetta .	...	—·078	—·067	ESE	1	10	0·09	Drizzling rain.
Jacobabad .	29·960	—·088	—·100	Calm	0	8	...	
Hyderabad (Sind).	29·998	—·053	—·061	Calm	0	10	...	
Mooltan .	30·025	—·008	—·055	Calm	2	10	...	
Pachpadra .	·010	—·058	...	ENE	4	10	...	

Very light rain had fallen in Baluchistan, but there had been no rain over India and the anti-cyclonic area had only moved as far east as the Eastern States of Central India.

February 8th.—Pressure had risen briskly to rapidly in Baluchistan, the Punjab, and Sind. The depression noticed in South Baluchistan on the 7th, had entered Sind and South Rajputana, but had almost filled up. The following gives 8 A.M. data for a few stations in the Punjab, Sind, Rajputana and Baluchistan showing the slightness of the disturbance :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Chaman .	...	+·098	+·026	ESE	10	8	0·01	Showery.
Quetta .	...	+·097	+·030	SSE	2	10	0·20	Snowing.
Peshawar .	30·241	+·139	+·107	Calm	2	9	...	
Rawalpindi	·213	+·112	+·146	Calm	1	5	0·03	Showery.
Khushab .	·187	+·106	+·111	Calm	4	2	...	
D. I. Khan.	·190	+·139	+·112	Calm	3	6	...	
Mooltan .	·188	+·163	+·105	NNE	2	10	0·20	
Montgomery	·160	+·134	+·097	NE	5	7	0·09	Showery.
Lahore .	·155	+·097	+·099	N	1	0	0·03	
Sialkot .	·166	+·072	+·128	Calm	1	3	0·01	
Ludhiana .	·133	+·065	+·093	Calm	1	7	0·07	Showery.
Umballa .	·119	+·069	+·096	Calm	1	3	...	
Jacobabad.	·108	+·148	+·045	N	3	0	...	
Hyderabad (Sind).	·072	+·074	+·016	NNW	3	0	...	
Bikaner .	·068	+·042	+·083	ENE	7	6	...	
Deesa .	·038	+·014	+·011	NNE	6	0	...	

Disturbance of the 9th to the 12th.—The observations for the 8th in Persia, showed that the rise, noticed over that country on the 7th, had ceased, and that the barometer was falling slightly with overcast skies and south-east winds. On the 9th pressure was high and above the normal average over North-West India, while it was also rising briskly at Baghdad, but in the intervening region a shallow depression apparently existed. The following gives 8 A.M. data for Asiatic Turkey, Persia, Baluchistan and the Indus Valley for the 9th and indicates the position and extent of the disturbance :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Baghdad .	30·252	+·131	+·071	Calm	1	0	0·07	
Teheran .		+·200			1	0	...	
Ispahan .		+·010		W	1	10	0·28	
Bushire .	30·014	—·019	—·069	SE	5	8	0·31	Showery.
Jask . .	...	—·098	—·110	ENE	7	10	0·34	
Chaman .	...	—·012	+·005	SE	10	2	...	
Quetta .	...	0	+·030	SSE	3	2	0·14	
Peshawar .	30·167	—·074	+·024	SSW	1	3	...	
D. I. Khan	·102	—·088	+·017	Calm	1	0	...	
Mooltan .	·116	—·072	+·031	Calm	2	0	...	
Jacobabad .	·107	—·001	+·041	Calm	1	5	...	
Hyderabad (Sind).	·083	+·011	+·028	Calm	6	0	...	

Rain was apparently falling from Quetta to Bushire and Baghdad.

February 10th.—The barometer was rising and the weather was more quiet over Persia. The following gives 8 A.M. data for the Persian stations :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Baghdad .	30·325	+·073	+·137	Calm	0	10	...	Foggy.
Teheran .		0		NE	4	6	...	
Ispahan .		+·090		SW	5	3	...	
Bushire .	30·182	+·168	+·102	NNE	11	6	0·19	Sea rising.
Jask . .	...	+·130	+·023	WNW	14	0	...	Wind variable.

Pressure had on the contrary, given way briskly to rapidly in Baluchistan and North-West India. A depression was lying over the Western desert, as is shown by

the following observations for North-West India for 8 A.M.:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Chaman .	...	—·098	—·090	SSW	8	10	...	
Quetta .	...	—·141	—·108	Calm	4	10	0·04	Showery.
Peshawar .	30·010	—·157	—·111	Calm	1	10	...	
Rawalpindi	29·978	—·162	—·081	Calm	1	10	...	
Khushab .	·933	—·166	—·142	Calm	1	4	...	
D. I. Khan	·925	—·177	—·136	NNE	1	10	...	
Mooltan .	·932	—·184	—·134	SW	2	10	...	
Montgomery	·932	—·151	—·114	Calm	3	8	...	
Lahore .	·925	—·146	—·117	Calm	2	10	...	
Sialkot .	·942	—·109	—·087	Calm	1	6	...	
Sirsa . .	·904	—·136	—·131	SE	3	8	...	
Jacobabad .	·927	—·180	—·128	Calm	1	10	...	
Hyderabad (Sind).	·983	—·100	—·064	Calm	1	2	...	
Bikaner .	·949	—·137	—·031?	WNW	4	8	...	

February 11th.—Pressure had increased briskly to rapidly in Baluchistan and over the greater part of the Punjab, and the depression, noticed over the Western desert on the 10th, had advanced to the North-West Provinces. The storm had, however, become slight and of very little importance and during the next 24 hours it drifted into Bengal and practically filled up. The storm had occasioned rain over North-West India and gave thunder showers to North-East India on the 11th and 12th.

Disturbance of the 13th to 18th.—On the 12th pressure was beginning to give way slightly in Persia, and on the following day, the 13th, the fall became rapid at Baghdad. The following gives 8 A.M. data for the 13th for the Persian stations:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Baghdad .	29·809	—·359	—·379	S	1	8	0·20	Gloomy.
Teheran .		—·100			3	8	...	
Ispahan .		—·030		Calm	4	10	...	
Bushire .	·968	—·094	—·073	SSE	3	10	0·06	Drizzling rain.
Jask . .	...	—·040	—·075	E	8	4	...	Wind variable.

The weather was slightly disturbed in this area and rain was falling at Baghdad and Bushire.

In North-West India and Baluchistan pressure was increasing and anti-cyclonic conditions prevailed with fine and cool weather.

February 14th.—On this day pressure was still falling in Persia where the weather was overcast, rainy and unsettled. The following gives data for 8 A.M. for the Persian stations:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Baghdad .	29·801	—·008	—·390	SW	9	8	...	
Teheran .		—·150			1	8	0·31	
Ispahan .		—·100		SW	3	0		
Bushire .	29·924	—·044	—·105	SE	8	10	1·45	Drizzling rain.
Jask . .	...	—·023	—·105	ESE	10	10	...	

The storm was apparently still over the Persian area and anti-cyclonic conditions with cool weather and light winds prevailed over North-West India.

February 15th.—The barometer was rising at Baghdad and Bushire, but was falling at Jask.

The storm was apparently moving eastward and showers

ad been received at some stations. The following gives ves 8 A.M. data for the Persian stations :—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inch.	
ghdad .	30·095	+·394	—·099	Calm	4	0	...	
heran .		+·050			2	7	0·03	Raining.
ahan .		+·050		WSW	5	0		
shire .	29·997	+·073	—·027	NE	3	0	0·09	Showery.
sk . .	...	—·063	—·165	E	15	8	0·02	Sea slight.

Pressure had now begun to give way briskly to rapidly er North-West India and Baluchistan. Conditions ere, however, still anti-cyclonic over North-West India. he following gives data for a few representative sta- ons :—

TATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inch.	
aman .	...	—·064	—·043	SSW	6	8	0·08	Showery.
etta .	...	—·044	—·019	Calm	3	2	...	
shawar .	30·031	—·134	—·076	Calm	2	3	...	
ra Ismail Khan.	·006	—·110	—·052	Calm	1	2	...	
oltan .	·000	—·114	—·047	SE	1	4	...	
ontgomery	·002	—·075	—·031	W	5	3	...	
ushab .	·013	—·081	—·021	SW	1	0	...	
hore .	29·993	—·092	—·031	Calm	2	0	...	
aner .	30·018	—·092	—·037	ENE	3	5	...	

February 16th.—The barometer had continued to rise Persia where the weather was fine. The following ves data for the Persian stations :—

STATION.	PRESSURE. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inch.	
Baghdad .	30·177	+·082	—·010	ESE	1	8	...	
Teheran .		+·100			3	0		
Ispahan .		+·140		W	6	0		
Bushire .	30·068	+·071	+·039	NE	8	0	...	Sea smooth.
Jask . .	...	+·079	—·089	N	11	0	...	

Pressure had given way briskly to rapidly over Baluchistan and North-West India and the depression which was advancing eastward through Persia was entering Sind. The following gives data for a few stations in North-West India for 8 A.M. :—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inch.	
Chaman .	...	—·036	—·083	SSE	9	4	0·70	Showery.
Quetta .	...	—·066	—·081	Calm	3	9	0·57	Showery.
Jacobabad .	29·807	—·190	—·203	Calm	3	7	...	
Hyderabad, (Sind).	·873	—·126	—·131	SW	5	0	...	
Kurrachee .	·910	—·103	—·099	WNW	7	2	...	
Deesa .	·883	—·094	—·102	E	8	2	...	
Bikaner .	·887	—·131	—·065	ENE	3	5	...	
Dera Ismail Khan.	·941	—·065	—·102	NE	2	9	...	
Mooltan .	·922	—·078	—·121	Calm	2	10	...	
Montgomery	·900	—·102	—·119	NE	5	7	...	
Sirsa . .	·900	—·075	—·104	SE	3	1	...	

Rain was falling in Baluchistan and the North-West Punjab and conditions were unsettled over North-West India.

February 17th.—Pressure had recovered over Baluchistan and the Indus Valley and decreased briskly to rapidly over the South-East Punjab, Rajputana, etc. The depression noticed over Sind on the 16th had reached the South Punjab and was central near Sirsa. The following

gives data for 8 A.M. for a few stations within 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Sirsa . .	29·775	—·125	—·217	ESE	7	3	...	
Ludhiana .	·858	—·072	—·127	N	2	8	...	
Montgomery	·887	—·013	—·136	N	10	1	...	
Delhi .	·829	—·095	—·172	Calm	5	5	...	
Roorkee .	·849	—·099	—·133	Calm	2	7	0·15	Showery.
Agra . .	·820	—·121	—·173	NE	2	0	...	
Meerut .	·835	—·091	—·148	NE	4	9	0·05	
Jhansi .	·818	—·138	—·188	ESE	2	0	...	
Bareilly .	·842	—·083	—·124	NE	3	6	...	
Bikaner .	·840	—·047	—·114	WNW	9	0	...	
Mainpuri .	·828	—·106	—·124	SSE	1	6	...	
Ajmer .	·860	—·115	—·153	NW	7	0	...	
Jaipur .	·821	—·126	—·191	NE	4	0	...	
Sambhar .	·842	—·116	—·169	SSW	5	0	...	
Neemuch .	·882	—·074	—·132	SW	9	1	...	
Nowgong .	·849	—·109	—·167	E	1	3	...	
Sutna .	·856	—·099	—·146	E	4	0	...	

The weather was unsettled with rain and snow in North-West India, while the winds were cyclonic and were blowing strongly.

February 18th.—The barometer had risen briskly to rapidly over a large part of North-West India and had fallen in Bengal and part of the North-Western Provinces. The following gives 8 A.M. data for a few representative stations in Northern India :—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Delhi .	29·891	+·062	—·110	Calm	6	0	...	
Bareilly .	·850	+·008	—·118	NE	7	0	...	
Agra . .	·886	+·066	—·109	NW	5	0	...	
Lucknow .	·867	+·003	—·124	Calm	4	0	...	
Cawnpore .	·865	+·007	—·104	Calm	3	0	...	
Gorakhpur .	·857	—·071	—·106	NNE	2	0	...	
Allahabad .	·869	0	—·119	Calm	8	6	...	
Benares .	·853	—·033	—·130	NW	4	8	...	
Nowgong .	·910	+·061	—·101	W	1	0	...	
Sutna .	·898	+·042	—·100	N	6	0	...	
Gaya . .	·830	—·078	—·157	S	3	1	...	
Patna .	·855	—·067	—·133	ESE	6	3	...	
Darbhanga .	·858	—·079	—·114	ESE	4	3	...	
Hazaribagh	·845	—·066	—·115	S	11	0	...	Distant lightning.
Ranchi .	·836	—·075	—·119	SSW	3	0	0·16	Showery.
Chaibassa .	·826	—·051	—·110	Calm	2	0	...	
Saugor Island.	·846	—·042	—·117	S	15	5	...	Sea slight and thunderstorm.
Cuttack.	·828	—·030	—·137	WSW	5	2	...	
Sambalpur .	·839	—·014	—·143	NNW	2	0	...	

The depression noticed over the Punjab on 17th had reached the North-Western Provinces and West Bengal. The weather had been unsettled and showery over a considerable part of Northern India, but particularly so in the north-west and north-east.

Disturbance of the 17th to the 21st.—On the 17th pressure gave way rapidly in Baghdad and moderately at the head of the Persian Gulf. The following gives 8 A.M. data for stations in this area :—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Baghdad .	29·933	—·244	—·237	SE	2	7	0·02	Gloomy.
Teheran .	...	+·250	...	NE	3	0		
Ispahan .	...	+·010	...	WNW	4	0		
Bushire .	30·003	—·065	—·028	ESE	6	7	...	Sea smooth.
Jask . .	...	+·005	—·081	NW	17	6	...	Do.

The wind was fresh from south-east at Baghdad, and the weather showery.

February 18th.—The barometer continued to fall

briskly to rapidly in Persia, with unsettled weather, as is shown by the following data for 8 A.M. on this day.:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Baghdad	29·851	—·082	—·315	WNW	7	8	0·19	
Teheran		—·450			2	9		
Ispahan		—·250		Calm	1	5		
Bushire	29·905	—·098	—·122	S	5	9	...	Sea rising.
Jask	...	—·086	—·163	ENE	7	9	...	Sea smooth.

In North-West India and Baluchistan at this time feeble anti-cyclonic conditions existed with pressure about the normal.

February 19th.—Pressure had increased rapidly at Baghdad and in Persia and the storm was passing on eastward towards Southern Baluchistan. The following gives 8 A.M. data for the Persian area:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Baghdad	30·170	+·319	—·001	Calm	2	8	...	
Teheran		+·100			1	1	0·20	
Ispahan		+·170		SW	6	0		
Bushire	30·088	+·183	+·064	NNE	10	0	0·04	Sea smooth.
Jask	...	+·089	—·076	N	9	0	...	

Pressure was still rising and was above the normal average over North-West India so that the depression had not begun to affect that part of the country.

February 20th.—Pressure had decreased over North-West India and the storm, which was passing through Persia on the 19th, was entering Sind. The storm was very slight and shallow, and only very feebly affected the weather.

February 21st.—The depression had continued to move eastward and at 8 A.M. was passing through North Rajputana and the south of the Punjab, but its effect on the weather was unimportant.

Disturbance of the 21st to the 25th.—A disturbance had apparently developed over Eastern Persia on the 21st and 22nd. Its effects on the weather in Persia were unimportant and the disturbance during its passage through Persia was apparently very slight. On the 23rd the storm appeared over Sind and was central over Jacobabad where pressure was in considerable defect. The following gives 8 A.M. data for the storm area for the 23rd:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Chaman	...	—·012	—·069	SW	17	8	0·98	Duststorm.
Quetta	...	—·056	—·087	Calm	7	7	0·45	Showery.
Jacobabad	29·833	—·103	—·164	W	6	0	...	
Hyderabad (Sind).	·890	—·051	—·112	SSW	8	9	0·03	
Kurrachee	·918	—·037	—·080	SW	7	8	...	
Mooltan	·893	—·113	—·136	NE	2	10	...	
D. I. Khan	·964	—·087	—·074	Calm	2	10	...	
Montgomery	·933	—·095	—·076	E	9	9	...	
Sirsa	·911	—·100	—·086	SE	3	8	...	
Delhi	·946	—·052	—·045	E	3	7	...	
Bikaner	·923	—·073	—·072	ESE	6	5	...	
Pachpadra	·905	—·079	...	SSE	3	8	...	
Deesa	·940	—·035	—·046	NW	8	1	...	

The winds were cyclonic in the extreme north-west but there had been very little rain.

February 24th.—Pressure had recovered rapidly at Jacobabad and had decreased rapidly in the East Punjab,

East Rajputana and the North-Western Provinces. The storm noticed near Jacobabad on the 23rd had moved eastward into Eastern Rajputana, while a second storm had been developed over the Punjab. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Lahore . .	29·839	—·130	—·159	Calm	4	9	0·16	
Ludhiana .	·810	—·168	—·160	S	4	9	...	Dusthaze.
Umballa .	·834	—·171	—·119	SE	3	8	...	
Sirsa . .	·810	—·101	—·174	SW	6	0	...	Dusthaze.
Sialkot . .	·917	—·072	—·064	W	5	8	0·21	
Montgomery .	·867	—·066	—·143	NW	13	1	...	Gale of wind.
Delhi . .	·884	—·062	—·093	SE	7	8	...	
Roorkee .	·895	—·107	—·069	SE	2	8	...	
Dehra Dun .	·912	—·116	—·075	NE	2	10	...	
Bareilly . .	·892	—·093	—·062	E	1	5	...	
Mainpuri .	·870	—·136	—·109	E	3	0	..	
Agra . . .	·860	—·133	—·123	SE	7	0	...	
Jhansi . .	·882	—·132	—·121	WSW	6	0	...	
Cawnpore .	·900	—·102	—·065	ESE	1	0	0·06	
Sambhar .	·886	—·102	—·105	Calm	9	4	...	
Nowgong .	·874	—·135	—·115	S	5	3	...	
Sutna . .	·886	—·136	—·083	E	6	6	...	
Nagpur . .	·987	+·014	+·015	ENE	11	4	0·45	Thunderstorm with hail.
Seoni . .	·995	—·017	+·001	WNW	7	6	0·36	Distant lightning.

The weather was very unsettled over North-West India and scattered rain had fallen over the north-west and central districts.

February 25th.—Pressure was increasing rapidly over North-West India and the primary depression had passed eastward from Rajputana into the North-Western Provinces. The following gives 8 A.M. data for a few representative stations :—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Agra . .	29·975	+·115	—·005	NW	6	0	...	
Mainpuri .	·958	+·088	—·023	NNE	3	4	...	
Bahraich .	·932	—·011	—·037?	E	5	8	0·03	
Lucknow .	·936	—·009	—·020	E	7	8	...	
Jhansi . .	·969	+·087	—·024	WNW	4	0	...	
Cawnpore .	·929	+·029	—·034	ENE	3	0	...	
Allahabad .	·925	—·015	—·030	ENE	7	1	...	
Benares .	·912	—·033	—·038	E	3	2	0·09	Thunderstorm.
Gaya . .	·943	—·024	—·017	SE	11	2	0·07	Nor'-Wester with rain.
Nowgong .	·956	+·082	—·034	NW	4	3	...	
Sutna . .	·923	+·037	—·049	WSW	13	0	...	Gale of wind.
Jubbulpore .	·943	+·018	—·028	SW	5	1	...	Distant lightning.
Saugor . .	·970	+·059	—·005	WNW	1	0	...	
Sambalpur .	·959	—·031	—·002	ENE	3	9	0·10	

The weather remained very unsettled over Northern India where thunderstorms had occurred.

Disturbance of the 24th to the 28th.—A sudden and large barometric fall occurred at Baghdad on the 24th, while at the other Persian stations the changes had been generally slight. The weather was disturbed, but no rain had fallen. The following gives 8 A.M. data for the Persian stations :—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inch.	
Baghdad .	29·868	—·299	—·278	SE	0	8	...	Drizzling rain.
Teheran .		+·050			3	0		
Ispahan . .		+·020		WSW	2	0		
Bushire . .	29·960	—·099	—·037	SE	7	0	...	Sea smooth.
Jask . .	...	+·009	—·066	ESE	8	2	...	Do.

February 25th—On this date pressure was still giving way over parts of Persia and a depression had apparently

been developed near Bushire. The following gives 8 A.M. data for the Persian stations for the 25th :—

STATION.	PRESSURE.			WIND.					WEATHER.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.		
	"	"	"				Inch.		
Baghdad .	29·910	+·042	—·227	S	4	2	0·08		
Teheran .	...	—·200	...	...	3	6			
Ispahan .	...	—·110	...	Calm	2	0			
Bushire .	29·872	—·088	—·127	SSE	12	10	...		Sea rising and gale of wind.
Jask . .	...	+·025	—·041	ENE	10	0	...		

Pressure was nearly steady on this day over Baluchistan and the Indus Valley so that these areas were probably just coming under the influence of the disturbance.

February 26th.—Pressure was rising over Persia and the storm was advancing eastward. The following gives the 8 A.M. observations on this date :—

STATION.	PRESSURE.			WIND.					WEATHER.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.		
	"	"	"				Inch.		
Baghdad .	29·945	+·035	—·178	SW	2	8	...		
Teheran .	...	—·070	...	...	0	7	0·20		
Ispahan .	...	—·030	...	WNW	7	10			
Bushire .	29·896	+·024	—·108	ENE	5	10	0·12		Drizzling rain.
Jask . .	...	+·019	—·026	NNE	15	10	...		Do.

Showery weather prevailed over this area with squally winds.

At the same time anti-cyclonic conditions with pressure considerably above the normal, existed over North-West India. The following gives 8 A.M. data for a few representative stations :—

STATION.	PRESSURE.			WIND.					WEATHER.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.		
	"	"	"				Inch.		
Chaman .	...	+·034	+·088	ESE	1	0	...		
Quetta . .	...	+·032	+·070	NW	1	1	...		Frosty.
Peshawar .	30·196	+·090	+·121	SSW	1	2	...		
Rawalpindi .	·158	+·082	+·139	Calm	0	0	...		
Sialkot . .	·097	+·067	+·125	Calm	2	0	...		
Khushab .	·112	+·045	+·110	Calm	2	2	...		
D. I. Khan .	·134	+·061	+·114	Calm	1	4	...		
Mooltan .	·114	+·074	+·104	Calm	2	0	...		
Montgomery .	·092	+·055	+·102	Calm	5	1	...		
Lahore . .	·084	+·046	+·106	N	1	0	...		
Ludhiana .	·072	+·053	+·102	W	1	0	...		
Jacobabad .	·044	+·060	+·073	E	3	9	...		
Ajmer . .	·120	+·067	+·088	Calm	2	0	...		
Jaipur . .	·081	+·058	+·096	NNE	4	0	...		
Sambhar .	·103	+·069	+·119	NNE	5	0	...		

February 27th.—Pressure was increasing over Persia and the depression was advancing east-ward. The weather was, however, still unsettled, as is shown by the following 8 A.M. data :—

STATION.	PRESSURE.			WIND.					WEATHER.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.		
	"	"	"				Inches.		
Baghdad .	30·039	+·094	—·065	S	4	8	0·09		
Teheran .	...	+·090	...	...	6	0			
Ispahan .	...	+·100	...	Calm	4	6	0·14		
Bushire .	29·976	+·080	—·036	NE	30	0	1·55		Severe Nor'-Wester.
Jask . .	...	—·066	—·097	E	16	10	0·01		

In consequence of the eastward advance of the disturbance pressure was giving way over Baluchistan and India and the depression apparently lay over Baluchistan. The weather was, however, fine over the Indian region.

February 28th.—The barometer was rising slowly and fine weather prevailed in Persia. The depression which was passing through Baluchistan on the 27th, had entered

Sind and the South Punjab. The following gives 8 A.M. data for the storm area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Peshawar .	29·940	—·112	—·095	S	1	7	...	
Rawalpindi .	·920	—·105	—·056	Calm	1	8	...	
Khushab .	·887	—·102	—·105	NNE	4	6	...	
D. I. Khan .	·874	—·151	—·111	NNE	1	10	...	
Lahore . .	·873	—·101	—·070	SE	3	10	...	
Montgomery .	·838	—·168	—·114	SE	6	4	...	
Mooltan .	·832	—·187	—·144	Calm	3	10	...	
Jacobabad .	·849	—·137	—·102	Calm	2	3	...	
Hyderabad (Sind).	·879	—·134	—·068	Calm	5	2	...	
Bikaner .	·881	—·150	—·130?	WSW	5	5	...	

The weather was quiet and except in Kashmir there had been no rain or snow. Two points are worthy of note in connection with these storms. The first is the rapidity with which one storm followed another and the second is the exceedingly feeble intensity of each and all of the disturbances. The following table gives approximately the dates and the positions of the different storms of the month :—

Number of disturbances.	Baghdad.	East Persia.	Jask.	Baluchistan.	Sind.	Punjab.	North-Western Provinces.	Bengal.
1st disturbance . .	6th	...	...	7th	8th	...	...	...
2nd do. . .	...	...	...	9th	10th	...	11th	12th
3rd do. . .	13th & 14th.	..	15th	...	16th	17th	18th	...
4th do. . .	17th	...	18th	19th	20th	21st	...	...
5th do. . .	...	21st	...	22nd	23rd	24th	25th	...
6th do. . .	24th	25th	26th	27th	28th	...	...	...

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

The reports indicate that over the North-West Himalayas snow fell more frequently than usual, but that, in general, the falls were light and melted quickly. On the whole the snowfall appears, though heavier than during February 1899, to have been about normal over the greater part of the mountain area, but in the middle ranges there appears to have been a locally heavy downpour and in the Simla district particularly the fall during February was both heavier and more continuous than usual.

I.—Afghan Mountain Districts.

(1) *Kabul*:—Snow fell on the 7th, 10th, 16th and 23rd, the total fall of the month amounting to 7 inches. At the close of the month the hills to the south were half covered with snow while the Paghmar hills were wholly covered. The following are the amounts of snow measured in February during the past four years :—

	February 1900.	February 1899.	February 1898.	February 1897.
Kabul . .	7 inches	14 inches	2 inches	3 feet

(a) *Wana* :—On the 7th, 8th and 9th of February snow fell to a depth of 5 inches on the higher peaks of Marwattai and Pirgal (11,000 feet) on Janimela (9,400 feet), Kotkan (7,900 feet) and Inzar.

On the 15th, 16th, 23rd and 24th rain was accompanied with a heavy fall of snow on the north-west higher peaks and mountains near Kanigoram and Makin.

On the 28th February nearly all the snow had melted off the sunny slopes and was lying only on the highest peaks and in sheltered ravines.

The snowfall was heavier than during February 1899.

(2) *Kurram* :—The officer on special duty in the Kurram reports that snow fell on the surrounding hills on the 1st, 2nd, 15th and 16th, on which dates there were also slight falls at Parachinar. The snow in the station did not lie long, as the weather was warm. The passes were all blocked and correct information as to the accumulation of snow could not be obtained.

(3) *Kurram Valley*:—The Civil Surgeon, Kurram, reports as follows :—There was snow on the Sufed Koh on the 1st, 2nd, 6th to 11th, 15th, 16th and 22nd and 23rd. The snow line descended to 4,000 feet on the 15th and 16th.

Less snow fell in this month than during February 1899.

(4) At Kashgar during February snow fell as follows :—

1st	½inch
3rd	½inch
6th	below measurement
7th	" "
9th	" "
26th	½inch
27th	below measurement

(5) *Khyber* :—The Political Officer, Khyber, reports :—

On the night of the 15th of January 1900 snow commenced falling in the Loargi plateau and surrounding hills and continued falling at intervals till the evening of the

17th, when it lay between 14 and 16 inches in depth.

It again commenced falling on the night of the 18th the depth then was only 5 inches. It continued falling at intervals till the evening of the 23rd, the depth varying between 3 and 5 inches.

On the 2nd, 7th, 11th and 16th February there were light falls of snow on the surrounding hills, but none on the Loargi plateau. The accumulation of snow at the end of February was as follows :—

Lakka hills	4 yards
Tor Sappar	3 yards
Spin Silka	3 yards
Turo Sor	3½ yards

(6) *Hazara* :—The Deputy Commissioner, Hazara, reports of the past winter that on the highest peaks some two feet of snow fell on the 20th and 21st of October 1899, but quickly melted. Thereafter followed an exceptionally dry, but cold winter and the winter rains were long deferred. There was another fall of snow, of about 2 feet, on the 20th November; 16th December 1899 and the 1st of January 1900. Heavier snow fell on the higher peaks between the 15th and 17th and the 20th to the 22nd of January, and was followed by falls on the 1st, 3rd and 8th of February. The snow on the 10th of February lay about 3 feet thick on the higher ranges. The storms from the 15th of January onward were very general. The winter snowfall was long deferred and heavier than of late, but about normal :—

II. KASHMIR AND PUNJAB HIMALAYAS.

(1) Murree :—The following is a statement of the snowfall during February 1900 at Murree, etc :—

Murree.

	Ft.	Ins.
3rd February	0	3
8th "	0	3
11th "	0	4
12th "	0	8
17th "	1	6
24th "	1	6
Total	4	6

Kahuta.

No snow.

(2) The following report has been received from Killa Drosh :—

1st February.—Heavy snow fell during the whole day and all over the mountains and hills. Six inches of snow was measured on the parade ground.

2nd—More snow fell on this day and a further two inches fell on the parade ground.

11th—Light snow fell on the highest mountains.

12th—Light snow again fell on the tops of the mountains.

16th.—Light snow

23rd.—Light snow

(3) Leh.—During February snow fell in Leh as follows :—

DATE.	Depth of snowfall.
2nd February 1900.	A sprinkle.
3rd " "	¾ inch
7th " "	¼ inch
8th " "	¾ inch
13th " "	A sprinkle.
17th " "	¼ inch
21st " "	¼ inch
22nd " "	¼ inch
25th " "	¼ inch

In Leh on the 28th February about three inches of snow was still lying on the fields. It was melting rapidly in the sun. It is probable that the amount of snow which has fallen round Leh this winter is much the same as last winter. The falls have been much slighter, but more frequent and the depth of snow at the close of the month was probably less than at the end of February last year.

(4) *Chamba.*—The Deputy Conservator of Forests, Chamba Division, gives the following account of the snowfall in that district in February.

The following is a statement of the snowfalls measured in different parts of the district :—

DATE.	BHANDAL VALLEY.		TISA RANGE.					OUTER RANGES.			MAIN RAVI VALLEY.				
	Bhandal 6,000.	Duir 5,000.	Chanan.	Thanela	Alwas.	Tisa.	Manjir.	Kalatop 8,000.	Surkhigalli 5,000.	Bakloh 4,500.	Chamba 3,000.	Dareri 4,500.	Chitrari 6,000.	Olansa 7,000.	Barmaur 8,000.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
1st February 1900 . .	...	...	...	...	...	...	...	...	...	...	...	...	...	0 6	1 0
2nd " " . .	...	...	0 2	0 4	...	...	...	...	...	...	...	...	..	0 1	0 2
7th " " . .	...	...	1 0	1 2½	0 10½	0 4½	...	...	...	...	...	...	...	0 3	...
8th " " . .	...	...	0 2	0 3	...	...	...	...	...	...	...	...	...	0 4	...
10th " " . .	0 9	0 2	0 2	0 3	...	...	...	...	...	...	...	...	...	...	...
11th " " . .	...	...	0 8	0 11	0 3	...	...	0 8½	0 3	...	...	...	...	0 4	1 0
12th " " . .	...	...	0 3	...	0 6	...	...	...	...	...	...	...	...	0 7	0 7

Date.	Bhandal Valley.		Tisa Range.					Outer Ranges.			Main Ravi Valley.				
	Bhandal 6,000.	Duir 5,000.	Chanan.	Thanela.	Alwas.	Tisa.	Manjir.	Kalatop 8,000.	Surkhigalli 5,000.	Bakloh 4,500.	Chamba 3,000.	Dareri 4,500.	Chitrari 6,000.	Olansa 7,000.	Barmaur 8,000.
	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.	ft. in.
16th February 1900 .	0 2	...	0 2½	0 7	0 8	...	...	0 4½	...	...	...	...	...	...	...
17th " " . .	...	...	0 1½	0 3	...	...	...	...	...	...	...	...	...	0 10	1 2
18th " " . .	...	...	0 4	0 6	1 0	...	...	...	...	...	...	...	...	0 2	0 3
21st " " . .	...	...	0 1½	...	...	...	...	...	...	...	...	...	...	...	...
22nd " " . .	...	...	...	...	...	...	...	...	...	...	...	...	...	0 1	0 2
24th " " . .	0 5	0 2	0 11½	0 9	0 7	...	...	0 9	...	...	...	...	0 4	1 0	2 0
25th " " . .	...	...	...	...	0 3	...	...	...	...	...	...	...	...	...	...
Total .	1 4	0 4	4 2	5 ½	4 1½	0 4½	...	1 10	0 3	...	...	...	0 4	4 2	6 4

The storms were general in character and rain fell in most places together with a good deal of hail.

At Surkhigalli and Bakloh there is no accumulation of snow; but the following are the depths reported in other places :—

	Ft.	Ins.
Barmaur	4	6
Olansa	1	9
Chitrari	0	4
Alwas	2	6

The snowfall has been unusually heavy for February, but on the whole it appears that there is less snow than usual even on the high hills.

(5) *Simla.*—The Deputy Conservator of Forests, Bashahr Division, reports as follows :—

Snow fell during February on the following dates extending down to the following elevations and measuring the following depths :—

Date.	Height above sea level in feet.	Reported depth of snow.	
		′	″
1st February 1900	5,750	0	8
2nd " "	9,000	0	9
3rd " "	6,000	0	5
8th " "	6,000	0	1
11th " "	5,750	0	1
13th " "	6,000	0	1
17th " "	7,000	0	1
18th " "	5,750	0	1½
19th " "	6,000	0	1
24th " "	6,000	0	½
25th " "	6,500	0	1

The above falls were general and the weather was unusually cold. The snowfall of the month under review is far in excess of that of last year and is said to be the largest fall for many years.

At the close of the month the depth of snow on the different passes was as follows :—

Borenda Pass (15,000 feet) . . .	15 feet.
Rupin Pass (15,500 feet)	15 "
Harang Pass (13,000 feet) . . .	10 "
Shatul Pass (16,000 feet)	15 "
Bulder Pass (16,000 feet)	19 "
Runang Pass to Poo and Spua (14,000 feet)	13 "

(6) *Kulu.*—There were six falls of snow in the Kulu Tahsil during February and thirteen falls in the Plach Tahsil. In Kulu the snowfall descended to 5,000 feet and in Plach to 5,700 feet.

All the passes were closed during the month. The following shows the reported depth of snow on the higher passes at the end of the month under review :—

Tahsil.	Name of pass.	Height above sea level in feet.	Reported depth of snow on 25th				
			Feb. 1900.	Feb. 1899.	Feb. 1898.	Feb. 1897.	Feb. 1896.
		Feet.	′ ″	′ ″	′ ″	′ ″	′ ″
Kulu	Rotang . .	13,000	29 0	12 0	11 0	12 0	16 0
	Hamta . .	14,500	12 0	10 0	12 0	12 6	12 0
	Barsai . .	...	5 0	5 6	3 0	5 0	5 0
	Chandarkhani .	...	10 0	10 0	6 0	6 0	7 0
	Bujadhar . .	...	7 6	3 0	6 0	6 0	5 0
	Lohri Achri .	...	9 0	12 0	9 0	12 0	11 0
	Bhubu . .	10,000	9 0	7 0	8 0	6 0	6 0
	Pastari . .	...	6 0	5 0	6 0	5 0	5 0
Plach	Srikhand . .	15,000	20 0	14 0	14 0	12 0	14 0
	Chul . .	...	10 0	6 0	5 0	8 0	5 0
	Maghin . .	...	10 0	6 0	6 0	7 0	5 0
	Tikar . .	...	10 0	6 0	7 0	9 0	5 0

Tahsil.	Name of pass.	Height above sea level in feet.	Reported depth of snow on 25th.				
			Feb. 1900.	Feb. 1899.	Feb. 1898.	Feb. 1897.	Feb. 1896.
			′ ″	′ ″	′ ″	′ ″	′ ″
Plach	Dundku	...	12 0	6 0	7 0	11 0	6 0
	Nuhnu	...	4 0	2 0	1 0	3 0	?
	Jalori	10,500	10 0	6 0	7 0	8 0	6 0
	Raghopur	...	10 0	6 0	...	8 0	5 0
	Lambri	...	10 0	6 0	7 0	8 0	5 0
	Sakiran	...	10 0	6 0	...	10 0	5 0
	Supakun	...	12 0	6 0	7 0	10 0	5 0
	Gargarasan	17,000	13 0	9 0	11 0	12 0	7 0
	Basleo	11,000	10 0	6 0	8 0	9 0	6 0
	Plach	...	12 0	9 0	11 0	6 0	6 0
	Tirath	...	13 0	9 0	12 0	10 0	6 0

The snow fall during the month under review was heavier than during the same month in former years.

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

(1) *Garhwal.*—In Garhwal snow fell more or less intermittently throughout the month. The more considerable falls were on the 7th, 10th, 11th, 17th, 18th and 24th. Snow descended to about 6,000 feet in the Central portions of the district, but the falls were light being about 6 to 12 inches. The snowfalls were more frequent than usual at this season.

(2) The Deputy Commissioner, Almora, forwards the following information of the snowfall in the Almora district:—

Malla Danpur.

3rd February	1 foot.
7th "	1 "
16th and 17th February	1½ feet
23rd and 24th "	1 foot
TOTAL	4½ feet.

Malla Johar.

7th February	6 feet.
11th "	4 "
17th "	4 "
21st "	5 "
TOTAL	19 "

Byans, Chandans and Darma.

11th to 13th February	4½ feet.
17th and 18th "	2 "
21st "	½ "
24th and 25th "	1½ "
TOTAL	8½ "

The snowfall of the month under review has been greater than that for the same month in previous years.

Summary of special Storm Reports.

The weather was a good deal disturbed during February and local thunder-storms and hail-storms occurred in different parts of the country during these periods of disturbance. The following gives brief notices of thunder-storms and hail-storms which occurred during the month and of which reports have been received:—

February 2nd.—Nor'wester with rain at Mymensing lasting from 1-40 P.M. to 2-25 P.M.

5th.—Dust-storm at Deesa from 7-15 A.M. to 11 A.M. The wind was steady from north-east and east-north-east. The barometer rose 0·017″ in fifteen minutes about 9 A.M.

11th.—Violent nor'wester at Burdwan giving 0·70 inch of rain and lasting one hour and fifteen minutes.

11th.—Violent nor'wester at Calcutta commenced at 7 P.M. and lasted till 8-10 P.M. The barometer rose 0·09″ between 7 and 7-55 P.M. One quarter of an inch of rain fell.

17th.—Nor'wester occurred at Calcutta between 7 P.M. and 9 P.M. The wind velocity during the storm was about 40 miles per hour and the total rainfall about 0·17 inch.

25th.—Nor'wester with rain at Burdwan at 5-30 P.M. lasting 15 minutes. The rainfall measured 1·39 inches.

The following reports of an earthquake on the morning of the 8th of February have been received:—

A shock of earthquake was felt in this town (Mysore) this morning at 3 A.M.

The observer at Madura reported "Earthquake about 3-7 A.M.; vibration about 1 minute."

From Bangalore the report was as follows: "Sharp

"earthquake shock felt here at 3-10 A.M. today, Madras time."

The observer at Calicut reported "Earthquake 3-15 A.M.; distinct shake forty-five seconds."

The Port Officer, Negapatam, reported "There was experienced a slight shock of earthquake at 3-5A.M. today which lasted a few seconds."

The following reports of hail-storms have been received from district officers in Assam :—

February 14th.—A slight hail-storm occurred in the vicinity of Kohima. It came up from north and lasted 5 minutes.

26th.—A moderate hail-storm passed over the Tezpur Tahsil lasting about 10 minutes. The hail stones were about the size of a large pea, but no damage was done.

27th.—In the morning a moderate hail-storm passed over the Tezpur town lasting about 10 minutes, but doing no damage.

27th.—A severe hail-storm passed over the Tezpur sub-division. The stones were about the size of a very large pea and some damage was done.

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

Arabian Sea :—Ordinary north-east monsoon winds prevailed steadily throughout the month over nearly the whole of the Arabian Sea, except near the Indian Coast, where north-westerly winds were experienced between the 15th and the 19th and again between the 24th and the end of the month. The winds were easterly and south-easterly over the centre and west of the sea from the 6th to the 10th and again on the 20th. Winds were more or less above their normal strength on 12 days, *viz.*:—1st to the 6th, 10th to the 12th and again on the 21st, 25th, and 27th and were normal or below the normal intensity during the remainder of the month. They were strongest (4·8) on the 2nd and feeblest (1·9) on the 16th On the mean of the whole month the air movement over the Arabian Sea was 3·1 or 0·1 above the normal intensity of the month.

Weather was throughout the month fine over the whole area except in the extreme south-east where occasional rain squalls were experienced on the 1st and 2nd.

In the Gulf of Aden, the winds although fairly normal in direction, were above their normal strength by a moderate amount for nearly half the month. This is shown by the wind data of Aden, where the daily air movement averaged 420 miles as compared with 356 miles, the normal daily velocity of the month. In the south of the Red Sea, on the other hand, the wind direction was more easterly than usual and the air movement normal. Weather was fine and cloudy throughout the month.

Bay of Bengal :—The wind circulation over the Bay area was fairly normal throughout the month except in the north, and east where south-westerly winds were experienced from the 16th to the 19th. The winds were southerly and south-easterly in the north and east of the Bay on the 5th and again on the 21st. Winds were slightly stronger than usual on the 1st and 5th, from the 8th to the 10th, the 17th to the 19th and on the 24th and 25th. The mean force over the whole area ranging between 2·0 and 3·1. The air movement over the Bay on the mean of the month was identical with the normal *viz.*, 2·5. Weather was fine and settled over the whole area throughout the month.

Equatorial Belt :—So far as can be judged from the scanty information available, conditions were practically normal over this region throughout the month. The data for the Seychelles and Zanzibar indicate that the winds were lighter and less steady than usual. A noteworthy feature of the meteorology of the month at these two stations was the increased rainfall, the total fall of the month having been 11 per cent above the normal at the Seychelles and 51 per cent in excess at Zanzibar.

Temperature of the Air.

The temperature of the month was generally above the normal. The disturbed periods during the month, though frequent, were generally slight and accompanied with only moderate snowfall so that the cool waves which followed them were generally feeble and hence exercised only a slight modifying influence on the weather. In consequence the high temperature conditions, established during the preceding months of drier and finer weather than usual, continued to prevail more or less uninterruptedly during the month under review.

The mean maximum or day temperature of the month was below the normal (1) in Baluchistan and at Peshawar (2) along the West Coast of the Peninsula (3) in the east of the North-Western Provinces and (4) at the head of the Assam Valley. The deficiency was almost every-

where small and was 1° or more only at the following stations :—

Station.	Mean maximum temperature.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Chaman	54·8	56·7	−1·9
Ratnagiri	84·5	86·3	−1·8
Bombay	81·4	82·5	−1·1
Mormugao	84·0	85·0	−1·0

Over the whole of the remainder of India the mean maximum temperature exceeded the normal and was more than 2° above the average over the South Punjab, Rajputana, Sind, Gujarat, the central parts of India, the greater part of the centre, south and east of the Peninsula, South-West and Lower Bengal and a large part of Burma. In the centre of this large area there occurred a region where the excess was as much as 4° or more. This region is defined by the stations for which comparative data are given below :—

Station.	Mean maximum temperature.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Chaibassa	89·4	83·7	+5·7
Chanda	97·2	91·6	+5·6
Cuddapah	99·5	94·4	+5·1
Seoni	88·9	83·9	+5·0
Bijapur	94·9	90·0	+4·9
Nagpur	93·9	89·1	+4·8
Akola	95·0	90·3	+4·7
Raipur	91·3	86·8	+4·5
Amraoti	94·0	89·7	+4·3
Secunderabad	95·3	91·0	+4·3
Ranchi	80·9	76·8	+4·1
Malegaon	93·9	89·8	+4·1
Jacobabad	81·2	77·1	+4·1
Ahmednagar	91·9	87·9	+4·0

Except in the Kashmir Valley the mean day or maximum temperature of the month was lower than usual at the hill stations in the north-west, the frequent disturbances of the month having kept the day temperatures low in this area. The following gives comparative data for the North-West hill stations :—

Station.	Mean maximum temperature.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Leh	28·6	34·9	−6·3
Murree	44·7	47·5	−2·8
Cherat	51·0	52·0	−1·0
Ranikhet	54·5	55·2	−0·7
Simla	46·4	47·0	−0·6
Chakrata	50·5	50·9	−0·4
Srinagar	45·0	41·7	+3·3

At the Eastern Himalayan stations, on the contrary, as well as at the hill stations in Central and Southern India, the maximum temperature on the mean of the month was higher than usual, the amount of the excess having been generally somewhat greater than on the neighbouring plains. The following gives data for these stations :—

Station.	Mean maximum temperature.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Pachmarhi	79·3	75·1	+4·2
Wellington	74·1	70·4	+3·7
Darjeeling	49·7	46·2	+3·5
Mount Abu	69·1	68·9	+0·2

The highest day temperatures of the month were generally recorded in Bengal about the middle or end of the month; in the Gangetic Plain between the 24th and 27th; in the upper Sub-Himalayas between the 24th and 28th; in East Rajputana, Central India and Gujarat between the 24th and 28th; in the Deccan either on the 11th or 12th or on the 28th; along the West Coast on the 3rd or 6th and in South India on various dates. The

following gives the highest temperature recorded during the month in each of the divisions with the station recording it together with the highest temperatures previously recorded at those stations in February :—

Division.	Station.	Highest maximum temperature recorded in February 1900.	Date on which recorded.	Highest maximum temperature recorded in February previous to 1900.	Year in which recorded.
		°		°	
Bengal and Orissa.	Cuttack	97·4	14th and 28th	102·2	1896
	Midnapore	92·3	12th, 27th and 28th	103·3	1896
Gangetic Plain.	Cawnpore	87·3	25th	95·3	1896
	Mainpuri	86·3	25th	92·8	1897
Upper Sub-Himalayas.	Meerut	84·3	24th	92·0	1870 and 1873
	Bareilly	83·4	25th	91·2	1884
East Rajputana, Central India and Gujarat.	Surat	99·2	28th	103·7	1878
	Bhavnagar Para	95·6	22nd	100·6	1899
	Rajkot	95·3	28th	102·9	1886
Deccan	Chanda	100·7	11th	102·5	1887
	Sholapur	99·7	28th	102·5	1886
West Coast	Ratnagiri	96·9	6th	99·8	1882
	Cochin	93·5	3rd and 4th	98·3	1894
South India	Cuddapah	102·7	28th	105·2	1897
	Bellary	101·2	28th	102·7	1897
	Kurnool	100·2	12th	103·5	1886

It will be noticed that the above maxima are not so high as those previously recorded and are less high than those recorded in February 1899, when readings of over 100° were registered at Sholapur, Bhavnagar Para, Raipur, Raichur, Cuddapah, Kurnool and Bellary.

The mean minimum or night temperature of the month was below the normal average only at a few stations along the West Coast. The following gives data for these stations :—

Station.	Mean minimum temperature.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Kurrachee	57·7	58·3	—0·6
Veraval	60·1	60·7	—0·6
Poona	56·9	57·5	—0·6
Bombay	68·1	68·4	—0·3
Goa	69·9	70·1	—0·2

Over the whole of the remainder of India the mean minimum temperature was higher than usual. The excess was less than 2° on both coasts of the Peninsula; in Upper Assam; Upper Burma; and at the foot of the Kumaun Himalayas, but was more than 2° elsewhere and was more than 4° in four areas. The first area included the east of Rajputana; the second the Eastern States of Central India, the third Tenasserim and the fourth the Deccan, South-West Bengal, Deltaic Bengal and East Bengal. The following table gives comparative data for these four areas of greatest excess :—

Area.	Station.	Mean minimum temperature.		
		Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
		°	°	°
First Area	Jaipur	54·4	50·0	+4·4
	Ajmer	52·7	48·4	+4·3
Second Area	Jhansi	58·8	54·2	+4·6
	Sutna	55·1	51·0	+4·1
	Saugor	58·2	54·2	+4·0
Third Area	Mergui	73·4	68·6	+4·8
Fourth Area	Balasore	66·8	60·2	+6·6
	Sambalpur	65·8	59·5	+6·3
	Chanda	65·0	58·8	+6·2
	False Point	69·9	64·3	+5·6
	Saugor Island	70·4	65·1	+5·3
	Barisal	63·4	58·1	+5·3
	Cuttack	70·2	65·1	+5·1
	Bellary	69·7	64·8	+4·9
	Hyderabad (Deccan)	67·5	62·7	+4·8
	Calcutta	64·4	59·8	+4·6
	Secunderabad	67·2	62·7	+4·5
	Chaibassa	61·4	56·9	+4·5
	Sholapur	66·0	61·7	+4·3
	Narayanganj	62·0	57·8	+4·2
	Jessore	60·8	56·6	+4·2
	Mymensing	57·7	53·6	+4·1
	Chittagong	62·5	58·5	+4·0
	Raichur	72·2	68·2	+4·0

The variations of the night temperature from the normal at the Upper India hill stations were generally small, except at Srinagar where as was the case with the mean maxi-

mum temperature there was a considerable excess. The following gives data for this station :—

Station.	Mean minimum temperature.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Srinagar	39·4	26·5	+3·9

The lowest night temperatures of the month were generally registered in the first week of the month. The following gives the more noteworthy readings both on the hills and plains, together with the lowest readings hitherto recorded at the same stations in February. It will be noticed that they are in no case remarkably low and have been exceeded in previous years, except in the case of Sharigh, Killa Drosh, Parachinar and Kashgar :—

	Station.	Lowest minimum temperature recorded in February 1900.	Date on which recorded.	Lowest minimum temperature recorded in February, previous to 1900.	Year in which recorded.
		°		°	
Hill Station.	Sharigh	20·0	5th	25·0	1897
	Pishin	15·0	5th	9·9	1895
	Quetta	18·3	5th	11·8	1893
	Kalat	10·6	3rd	1·4	1895
	Chaman	20·1	4th	13·11	1896
	Leh	1·0	6th	—10·0	1885
	Srinagar	16·6	1st	— 3·9	1895
	Astor (Kashmir)	11·0	6th	4·5	1897
	Skardu	19·2	6th	— 4·0	1897
	Dras	26·9	14th	—30·5	1899
	Chitral	23·0	4th	22·4	1897
	Killa Drosh	23·8	5th	28·8	1898
	Para Chinar	21·5	4th	24·4	1898
	Murree	27·0	3rd	16·7	1886
	Poo	18·0	5th	8·8	1895
	Muktesar	28·7	18th	27·9	1899
	Yatung	17·9	14th	11·9	1896
	Gantok	25·0	22nd	23·0	1898
	Meshed	5·0	3rd	1·0	1891
	Kabul	19·4	2nd	5·0	1896
	Kashgar	—7·7	2nd	8·8	1894
Plain Station.	Meerut	39·2	6th	33·7	1883
	Lahore	37·0	5th	30·5	1887
	Sirsa	35·0	5th	30·2	1887
Plain Station.	Sialkot	38·1	5th	31·0	1876
	Peshawar	35·9	4th	29·2	1883
	Khushab	37·9	4th & 5th	33·1	1892 & 1893
	Montgomery	34·0	5th	32·3	1893
	D. I. Khan	36·5	5th	28·0	1883
	Mooltan	38·5	5th	32·0	1880
	Jacobabad	39·0	5th	29·0	1887
	Pachpadra	37·5	6th	25·4	1882
	Sambhar	36·0	6th	33·0	1891
	Ajmer	39·9	6th	32·0	1887

The mean temperature of the month exceeded the normal in all parts of the plains of India except at a few stations along the West Coast. The following gives data for these stations :—

Station.	Mean daily temperature.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	°	°	°
Ratnagiri	75·8	76·7	—0·9
Bombay	74·8	75·5	—0·7
Mormugao	77·7	78·2	—0·5
Karwar	76·5	76·7	—0·2

The excess was more than 2° over by far the greater part of the country and was more than 4° in parts of the Deccan, the east of the Central Provinces, South-West and Deltaic Bengal. The following gives data for the stations where the excess was over 4° :—

Station	Mean daily temperature.		
	Actual, February 1900.	Normal, February	Variation of actual from normal, February 1900.
	°	°	°
Chanda	81·1	75·2	+5·9
Chaibassa	75·4	70·3	+5·1
Balasore	76·7	71·8	+4·9
Sambalpur	78·3	73·7	+4·6
Saugor Island	77·5	73·0	+4·5
Barisal	73·6	69·1	+4·5
Secunderabad	81·3	76·9	+4·4
Cuddapah	85·7	81·3	+4·4
Bellary	83·7	79·5	+4·2
Hyderabad (Deccan)	80·9	76·8	+4·1
Raipur	77·5	73·4	+4·1

At the north-west hill stations the variations from the normal were small and generally negative while in North-eastern, Central and Southern India the variations of the mean temperature from the normal were moderate and positive.

The chief features of the mean temperature distribution of the month were :—

(1) Steady high temperature throughout the greater part of the month with no very large waves of heat or cold.

(2) No large extremes of heat or cold.

The chief abnormal features of the mean temperature of the month were :—

(1) Lower temperatures than usual both by day and night over the west of the Peninsula.

(2) Slightly lower temperatures by day and slightly higher temperatures by night at the hill stations in North-Western India, at the stations in the east of the North-Western Provinces and at those in the Upper Assam Valley.

(3) Higher temperatures both by day and night over the whole of the remainder of India. The excess was most marked within a broad band running from the Deccan through the east of the Central Provinces into Deltaic Bengal.

The following table gives mean temperature data of the month for 55 of the meteorological divisions into which India is divided :—

Province.	Division.	Actual Temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	90·6	74·2	82·4	16·5	24·0	+1·3	+3·5	—2·2
	Lower Burma (Deltaic)	90·8	70·4	80·6	20·4	26·7	+0·7	+3·5	—2·8
	Central do.	94·3	59·5	76·9	34·9	45·3	+3·1	+2·4	+0·7
	Upper do.	88·7	58·8	73·8	29·9	40·0	+1·2	+2·3	—1·1
Bengal and Assam	Eastern Bengal	82·6	60·4	71·5	22·2	31·4	+1·8	+4·4	—2·6
	Assam (Surma)	82·0	58·0	70·0	24·0	33·1	+2·1	+3·0	—0·9
	Do. (Brahmaputra)	75·1	55·3	65·4	19·9	33·4	+0·2	+1·6	—1·4
	Deltaic Bengal	84·5	63·0	73·8	21·5	32·4	+3·6	+5·0	—1·4
	Central do.	82·7	58·5	70·7	24·2	34·4	+1·1	+3·4	—2·3
	North do.	78·7	53·9	66·3	24·8	37·4	+1·9	+3·5	—1·6
	Bengal Hills	57·6	31·2	44·4	26·5	36·5	+3·5	+1·4	+2·1
	Orissa	86·7	71·1	78·9	15·6	26·0	+2·6	+5·8	—3·2
	Chota Nagpur	83·4	57·3	70·4	26·1	39·5	+3·6	+3·3	+0·3
	South Bihar	79·4	56·7	68·0	22·7	37·4	—0·2	+2·6	—2·8
	North do.	77·7	54·5	66·2	23·2	36·4	+0·9	+2·0	—1·1
North-Western Provinces and Oudh.	North-Western Provinces (East)	79·7	54·3	67·0	25·4	39·5	—0·4	+3·1	—3·5
	Oudh (South)	79·8	53·0	66·4	26·8	39·1	+1·3	+2·7	—1·4
	Do. (North)	78·3	52·5	65·6	25·8	43·2	+1·6	+2·1	—0·5
	North-Western Provinces (Central)	80·2	54·6	67·4	25·6	42·3	+1·9	+4·6	—2·7
	Do. do. (West)	78·1	52·6	65·4	25·5	43·1	+1·3	+3·1	—1·8
	Do. do. (East Sub-montane)	77·6	54·9	66·3	22·7	35·8	—0·4	+3·0	—3·4
	Do. do. (West do.)	72·9	49·4	61·3	23·6	38·5	+0·6	+1·8	—1·2
	Do. do. (Hills)	51·4	37·5	44·5	13·9	30·0	—0·6	+0·3	—0·9
Punjab	Punjab (South-East)	75·9	53·8	64·9	22·1	39·5	+0·8	+2·3	—1·5
	Do. (South)	73·3	49·2	61·3	24·1	43·8	...	...	...
	Do. (Central)	72·6	46·9	59·8	25·7	43·2	+2·1	+3·0	—0·9
	Do. (Submontane)	72·0	48·5	60·3	23·5	39·5	+1·8	+1·5	+0·3
	Do. (Hills)	42·7	26·8	34·8	15·9	35·5	—1·5	+0·7	—2·2
	Do. (North)	64·9	44·3	54·6	20·6	38·2	—0·8	+2·8	—3·6
	Do. (West)	73·0	47·0	60·0	26·0	45·9	+2·0	+1·5	+0·5

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Variation from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bombay and Malabar Coast Districts (Madras).	Malabar	88·8	74·5	81·7	14·2	18·8	+1·0	+2·3	−1·3
	Madras (South Central)	95·1	68·4	81·7	26·7	35·3	+2·4	+3·5	−1·1
	Coorg	83·3	60·6	72·0	22·7	33·3	+2·1	+3·3	−1·2
	Mysore	90·6	63·7	77·2	26·9	35·1	+3·3	+2·7	+0·6
	Konkan	83·5	68·8	76·2	14·7	23·4	−1·2	+0·1	−1·3
	Bombay Deccan	94·1	62·7	78·4	31·5	40·9	+3·3	+2·0	+1·3
	Hyderabad (North)	94·4	67·6	81·0	26·8	35·0	...	...	...
	Khandesh	92·9	55·9	74·5	37·0	49·2	+1·0	+2·6	−1·6
Central Provinces and Berar.	Berar	94·5	61·9	78·2	32·7	42·1	+4·5	+3·1	+1·4
	Central Provinces (West)	91·2	59·3	75·3	31·8	43·8	+3·6	+2·9	+0·7
	Do. (Central)	88·7	58·9	73·8	29·8	40·6	+4·2	+3·9	+0·3
	Do. (East)	91·1	64·8	77·9	26·3	35·8	+3·7	+5·0	−1·3
Bombay (North)	Gujarat	91·1	60·5	75·8	30·7	42·4	+2·9	+1·4	+1·5
	Kathiawar and Cutch	86·0	57·4	71·7	28·6	43·5	+1·9	−0·1	+2·0
	Sind	82·3	54·0	68·2	28·3	45·6	+3·1	+0·6	+2·5
	Baluchistan Hills	55·3	31·9	43·6	23·4	52·4	−1·0	+1·4	−2·4
Rajputana and Central India.	Central India (East)	82·5	53·3	67·9	29·2	43·7	+1·9	+3·2	−1·3
	Rajputana (East), Central India (West)	82·1	54·9	68·5	27·2	44·2	+2·2	+4·0	−1·8
	Do. (West)	81·3	53·1	67·2	28·1	47·6	...	...	...
Madras	East Coast (North)	86·6	70·6	78·6	16·0	25·4	+1·9	+1·1	+0·8
	Hyderabad (South)	95·4	68·9	82·1	26·5	33·9	+3·5	+4·4	−0·9
	Madras (Central)	98·2	69·8	84·0	28·5	37·7	+3·9	+4·2	−0·3
	East Coast (Central)	91·0	69·4	80·2	21·6	29·6	+1·1	+1·8	−0·7
	Do. (South)	89·6	70·2	79·9	19·4	25·7	+2·4	+1·9	+0·5
	Madras (South)	92·3	71·4	81·9	20·9	28·4	+2·6	+2·1	+0·5

At the commencement of the month the mean temperature was above the normal, except on parts of the West Coast, in North Bombay and at Chaman. The excess was greatest and very large over the central parts of the country. The following gives variation data for the 24 hours ending at 8 A.M. on the 1st and illustrates the temperature conditions existing at this time:—

Province or Division.	Variation from normal of Mean maximum temperature, 1st February.	Mean minimum temperature, 1st February.	Mean daily temperature, 1st February.
	°	°	°
Burma	+3·7	+5·3	+4·5
Assam	+5·0	+3·6	+4·3
Bengal	+4·5	+7·5	+6·0
Orissa	+3·3	+5·1	+4·2
Bihar	−4·3	+10·5	+3·1
Chota Nagpur	+0·5	+7·8	+4·2
North-Western Provinces and Oudh	+0·5	+10·3	+5·4

Province or Division.	Variation from normal of Mean maximum temperature, 1st February.	Mean minimum temperature, 1st February.	Mean daily temperature, 1st February.
	°	°	°
Punjab	+4·0	+3·2	+3·6
Sind	+2·8	−3·3	−0·3
Rajputana	+5·1	+6·0	+5·6
Gujarat	+1·0	−3·3	−1·2
Central India	+4·5	+6·2	+5·4
Central Provinces	+7·9	+10·6	+9·3
Berar	+8·1	+8·2	+8·2
West Coast	−1·5	+2·1	+0·3
Bombay Deccan	+3·7	+4·9	+4·3
Mysore	+1·9	+3·0	+2·5
Madras Coast	+1·6	+2·4	+2·0
Madras Deccan	+2·4	+5·3	+3·9
South India	+2·7	+4·9	+3·8

The low temperatures which had already appeared at Chaman on the 1st quickly intensified and extended and a feeble cold wave traversed Northern India between the 1st and the 8th. The following gives comparative data for Baluchistan, Sind, the Punjab, Rajputana, the North-Western Provinces and Bengal for the first eight days of the month :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	1st February.	2nd February.	3rd February.	4th February.	5th February.	6th February.	7th February.	8th February.
	°	°	°	°	°	°	°	°
Baluchistan	+0·3	—5·5	—10·2	—10·8	—10·7	—1·2	+6·7	+8·3
Sind	—0·3	+3·0	— 1·5	— 2·4	— 2·5	—0·7	+2·8	+5·7
Punjab	+3·6	+4·4	+ 3·0	+ 0·8	— 2·5	—1·0	+0·9	+0·2
Rajputana	+5·6	+4·5	+ 2·8	+ 3·1	+ 1·2	—3·5	+3·2	+6·9
North-Western Provinces and Oudh.	+5·4	+4·5	+ 3·9	+ 4·5	+ 1·2	—2·6	—2·8	—3·6
Bihar	+3·1	+6·9	+ 5·2	+ 4·6	+ 2·8	+0·5	—4·8	—2·9
Bengal	+6·0	+8·2	+ 9·1	+ 5·2	+ 4·8	+3·6	+1·3	+2·2
Chota Nagpur	+4·2	+9·4	+ 7·3	+ 4·9	+ 5·3	+2·1	+0·9	+2·1

The oscillation was largest in Baluchistan and diminished eastward. The following shows the extent of the oscillation in the different provinces mentioned above :—

Province or Division.	Maximum positive variation.	Maximum negative variation.	Amount of oscillation.
	°	°	°
Baluchistan	+ 8·3	—10·8	19·1
Sind	+ 5·7	— 2·5	8·2
Punjab	+ 4·4	— 2·5	6·9
Rajputana	+ 6·9	— 3·5	10·4
North-Western Provinces and Oudh	+ 5·4	— 3·6	9·0
Bihar	+ 6·9	— 4·8	11·7
Bengal	+ 9·1	+ 1·3	7·8
Chota Nagpur	+ 9·4	+ 0·9	8·5

The above oscillation of temperature was not felt over the Peninsula, where the mean temperature remained steadily excessive, though much less so on the coasts than in the interior districts. The following gives comparative data for the peninsular districts from the 1st to the 8th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	1st February.	2nd February.	3rd February.	4th February	5th February.	6th February.	7th February.	8th February.
	°	°	°	°	°	°	°	°
Berar	+8·2	+6·6	+5·7	+4·4	+6·0	+4·4	+4·4	+6·9
West Coast	+0·3	+0·5	+1·0	+1·0	+1·3	+1·9	+2·2	+1·9
Bombay Deccan	+4·3	+3·6	+4·3	+2·8	+3·9	+4·1	+5·4	+5·1
Mysore	+2·5	+1·8	+3·0	+3·6	+4·3	+4·3	+1·5	+2·4
Madras Coast	+2·0	+0·4	+0·5	+0·8	+1·3	+1·7	+1·5	+1·8
„ Deccan	+3·9	+3·7	+4·5	+3·7	+4·3	+4·0	+3·7	+4·5
South India	+3·8	+2·2	+3·0	+3·9	+3·3	+2·8	+2·3	+4·1

By the 9th the cold wave noticed in Northern India had disappeared and the mean temperature exceeded the normal average practically in all the divisions. The following gives comparative data for the 24 hours ending at 8 A.M. onthe 9th :—

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

A further rise occurred on the 10th and the general excess of temperature was intensified. The excess was greatest over Rajputana and across the head of the Peninsula, and on the 9th, 10th and 11th exceeded 8° at the stations for which comparative data are given below :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date	Mean temperature of date.
		°	°	°
9th February	Jaipur	+ 8·7	+11·7	+10·2
"	Chanda	+ 8·3	+11·0	+ 9·7
"	Neemuch	+ 8·9	+ 9·5	+ 9·2
"	Ajmer	+10·6	+ 7·3	+ 9·0
"	Ahmedabad	+ 8·9	+ 9·1	+ 9·0
"	Veraval	+12·5	+ 5·1	+ 8·8
"	Rajkot	+ 6·2	+11·1	+ 8·7
"	Sambhar	+ 9·9	+ 6·6	+ 8·3
"	Amraoti	+ 8·6	+ 7·9	+ 8·3
10th "	Deesa	+ 4·8	+13·3	+ 9·1
"	Ajmer	+ 5·6	+11·3	+ 8·5
"	Khandwa	+ 7·0	+10·0	+ 8·5
"	Saugor	+ 8·6	+ 7·9	+ 8·3
"	Seoni	+ 9·7	+ 6·4	+ 8·1
"	Jaipur	+ 6·1	+10.0	+ 8·1
"	Sambhar	+ 5·3	+10·9	+ 8·1
11th "	Saugor	+10·3	+11·5	+10·9
"	Khandwa	+ 7·7	+14·0	+10·9
"	Indore	+ 9·8	+11·1	+10·5
"	Akola	+ 9·1	+11·5	+10·3
"	Sambalpur	+ 7·1	+12·2	+ 9·7
"	Nagpur	+11·2	+ 7·8	+ 9·5
"	Chanda	+10·0	+ 8·5	+ 9·3
"	Ajmer	+ 6·4	+11·8	+ 9·1
"	Raipur	+ 9·9	+ 8·3	+ 9·1
"	Hoshangabad	+ 8·7	+ 8·9	+ 8·8
"	Seoni	+ 8·7	+ 8·9	+ 8·8
"	Neemuch	+ 8·1	+ 8·8	+ 8·5

On the 9th unsettled weather appeared over Baluchistan, where rain was falling, and on the 10th a very shallow depression had appeared over the Western desert. This depression gave showers of rain to the plains of the Punjab and of snow to the hills in Baluchistan and to the North-Western Himalayas, the unsettled weather lasting until the 13th. In consequence abnormally low temperatures appeared over Baluchistan and the West Punjab and a very feeble cold wave extended over the Punjab, lasting until the 15th. The following gives comparative data for Baluchistan and the Punjab from the 10th to the 15th :—

Province or Division	Variation from normal of mean temperature of 24 hours preceding 8 A. M. of					
	10th February.	11th February.	12th February.	13th February.	14th February.	15th February.
	°	°	°	°	°	°
Baluchistan	+8·3	+1·5	—2·7	—1·9	+1·0	+2·4
Punjab	+6·2	+1·5	—0·2	—0·5	—0·7	—0·2

As this wave, feeble though it was, advanced slightly eastward, the area of greatest excess of temperature was also transferred eastward and was finally established over Lower Bengal. The following table gives comparative data from the 10th to the 15th for Rajputana, Central India, the Central Provinces, Orissa and Bengal, and shows the progress eastward of the area of greatest excess :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	10th Feb.	11th Feb.	12th Feb.	13th Feb.	14th Feb.	15th Feb.
	°	°	°	°	°	°
Rajputana	+7·5	+6·3	+3·5	+2·7	+1·2	+0·9
Central India	+5·7	+7·8	+4·5	+3·2	+1·3	+0·2
Central Provinces	+7·3	+9·4	+4·7	+3·6	+2·7	+3·1
Bihar	+3·3	+4·5	+4·9	+5·4	+3·5	+0·6
Chota Nagpur	+6·2	+8·4	+9·9	+7·2	+5·4	+2·1
Bengal	+4·8	+6·9	+7·1	+6·0	+5·5	+2·0
Orissa	+7·6	+6·9	+6·6	+7·8	+5·7	+2·8

This transference is also shown by the following table, which gives the stations recording an excess of over 10° on the 12th and the 13th :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
12th February	Ranchi	+13·4	+ 9·5	+11·5
" "	Chaibassa	+12·8	+ 7·9	+10·4
13th "	Balasore	+ 9·7	+10·6	+10·2
" "	Barisal	+ 7·1	+13·3	+10·2
" "	Chaibassa	+12·0	+ 8·2	+10·1

On the appearance of low temperatures over the Punjab the mean temperature also fell over Gujarat and the West Coast, and this reduction of temperature lasted practically uninterruptedly until the close of the month. The following gives comparative data for Gujarat and the West Coast for each alternate day from the 12th to the 28th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of								
	12th Feb.	14th Feb.	16th Feb.	18th Feb.	20th Feb.	22nd Feb.	24th Feb.	26th Feb.	28th Feb.
	°	°	°	°	°	°	°	°	°
Gujarat .	−0·4	−2·0	+0·8	+0·6	−1·0	+1·5	+1·7	−1·2	+0·2
West Coast .	+0·8	−1·3	−1·0	−1·3	−0·6	−0·5	−0·6	−0·8	−0·3

Over the centre and east of the Peninsula the mean temperature was in steady excess between the 10th and the 15th, the excess being greatest at the stations for which comparative data are given below :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
10th February .	Bijapur . .	+8·6	+7·1	+7·9
,, ,, .	Sholapur . .	+5·8	+8·1	+7·0
11th ,, .	Bellary . .	+6·3	+10·5	+8·4
,, ,, .	Hyderabad (Deccan)	+7·2	+7·1	+7·2
12th ,, .	Cuddapah . .	+9·4	+6·8	+8·1
13th ,, .	,, . .	+9·5	+7·1	+8·3
,, ,, .	Kurnool . .	+6·6	+7·5	+7·1

On the 15th pressure was giving way briskly to rapidly over Baluchistan and North-West India, and on the morning of the 16th a moderate depression was entering Sind. This depression had given rain to Baluchistan and the North-West Punjab and light snow to Kashmir. This unsettled weather subsequently extended right across India and continued till the 20th. This unsettled weather reduced temperature in an irregular manner over Northern India, the reduction continuing in the case of Bengal until the 22nd. The following gives comparative data for Northern India from the 16th to the 22nd :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	16th Feb.	17th Feb.	18th Feb.	19th Feb.	20th Feb.	21st Feb.	22nd Feb.
	°	°	°	°	°	°	°
Bengal . .	+0·4	+2·5	+4·1	+2·0	+0·1	−1·6	−0·2
Bihar . .	−0·8	−0·2	+2·0	+3·0	−0·3	−2·2	−1·2
Chota Nagpur.	+3·1	+3·8	+4·7	+4·4	−0·8	−1·3	+0·2
N.-W. P. and Oudh.	−0·2	+3·3	+4·0	+1·2	−0·7	−0·5	+0·6
Punjab . .	+3·3	+0·8	+0·2	+0·6	+2·2	+3·9	+3·8
Sind . .	+3·5	+3·6	+0·7	+2·3	+4·0	+3·5	+3·0
Rajputana .	+2·3	+6·6	+3·6	+0·3	+0·3	+2·1	+2·7
Gujarat . .	+0·8	+3·5	+0·6	−1·1	−1·0	+1·7	+1·5
Central India .	+1·0	+4·6	+3·2	+0·6	−2·8	−1·3	−0·3

During this time the central districts of the south of the Peninsula exhibited excessive temperatures, of which the following were the more important :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
16th February .	Bellary . . .	+2·8	+6·1	+4·5
,, ,, .	Cuddapah . .	+5·7	+3·1	+4·4
,, ,, .	Trichinopoly . .	+4·9	+3·4	+4·2
17th ,, .	Tinnevelly . .	+6·1	+2·0	+4·1
,, ,, .	Cuddapah . .	+6·1	+3·1	+4·6
,, ,, .	Bangalore . .	+3·5	+5·4	+4·5
,, ,, .	Kurnool . .	+3·7	+5·3	+4·5
,, ,, .	Tinnevelly . .	+5·2	+3·0	+4·1
18th ,, .	Salem . . .	+3·4	+5·8	+4·6
,, ,, .	Cuddapah . .	+4·5	+4·0	+4·3
,, ,, .	Trichinopoly . .	+3·6	+4·4	+4·0
19th ,, .	Cuddapah . .	+6·2	+6·2	+6·2
,, ,, .	Bellary . .	+2·3	+8·5	+5·4
,, ,, .	Salem . . .	+3·5	+6·7	+5·1
,, ,, .	Bangalore . .	+3·4	+6·2	+4·8
,, ,, .	Trichinopoly . .	+4·1	+5·5	+4·8
,, ,, .	Madura . .	+2·5	+5·7	+4·1
20th ,, .	Cuddapah . .	+5·0	+6·0	+5·5
,, ,, .	Kurnool . .	+3·7	+7·1	+5·4
,, ,, .	Madura . .	+5·1	+4·8	+5·0
,, ,, .	Salem . . .	+5·0	+4·4	+4·7
,, ,, .	Bangalore . .	+4·6	+4·3	+4·5

Date.	Station.	Variation from normal of Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
21st February	Kurnool	+2·9	+10·7	+6·8
" "	Bangalore	+5·1	+4·9	+5·0
" "	Salem	+3·8	+5·6	+4·7
22nd "	Kurnool	+3·2	+7·4	+5·3
" "	Bangalore	+3·5	+6·4	+5·0
" "	Mysore	+3·1	+6·7	+4·9
" "	Salem	+3·2	+5·1	+4·2

On the 19th temperature began to rise quickly on the plains and hills in the extreme north-west, and the area of excessive heat, which usually precedes the appearance of a depression in the north-west, was shown between the 19th and the 22nd. The following gives data in illustration :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 19th Feb.	20th Feb.	21st Feb.	22nd Feb.
	°	°	°	°
Baluchistan	+3·0	+3·0	−1·9	+1·0
Punjab	+0·6	+2·2	+3·9	+3·8
Rajputana	+0·3	+0·3	+2·1	+2·7
Sind	+2·3	+4·0	+3·5	+3·0
Gujarat	−1·1	−1·0	+1·7	+1·5

On the 23rd the depression appeared over Upper Sind, rain began to fall in Baluchistan and snow on the hills. Accompanying this unsettled weather, there occurred a rapid reduction of temperature over Baluchistan and the West Punjab, and another feeble cold wave appeared and proceeded to advance slowly across Northern India. The following gives comparative data for Northern India from the 23rd to the 28th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 23rd February.	24th February.	25th February.	26th February.	27th February.	28th February.
	°	°	°	°	°	°
Baluchistan	+2·6	−4·1	−6·2	−2·2	+4·4	+7·9
Sind	+6·5	+1·5	−0·4	−0·1	+1·9	+1·7
Gujarat	+1·3	+1·7	−0·3	−1·2	−0·3	+0·2
Punjab	+5·6	+2·6	−1·3	+0·2	+1·0	+4·2
North-Western Provinces and Oudh.	+0·1	+3·7	+2·9	+1·2	−0·5	−0·4
Rajputana	+4·5	+4·3	−0·3	−2·0	−1·1	+1·1
Central India	+2·1	+5·3	+3·9	−1·5	−2·3	−0·9
Choat Nagpur	−1·0	+3·3	+0·5	+2·8	−0·5	−2·5
Bihar	−0·9	+0·4	+2·3	−0·1	+0·6	−2·5
Bengal	−1·0	−0·4	+0·5	+0·6	+2·1	−1·9

During this period the mean temperature over the centre and east of the Peninsula changed very little, but was steadily in moderate excess. The following gives data for these districts from the 23rd till the close of the month :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 23rd February.	24th February.	25th February.	26th February.	27th February.	28th February.
	°	°	°	°	°	°
Berar	+3·4	+3·8	+3·5	+1·6	+2·1	+1·9
Bombay Deccan	+2·2	+2·0	+0·7	+0·5	+1·8	+3·1
Mysore	+4·7	+1·8	+1·8	+3·2	+3·1	+3·2
Madras Coast	+1·3	+1·6	+2·2	+1·4	+0·6	+1·3
Madras Deccan	+4·4	+2·5	+1·5	+2·5	+2·0	+3·3

The following gives the variations of the mean temperature from the normal, week by week, during the month in twenty divisions of the Empire :—

Province or Division.	Variation from normal of mean temperature for week ending 10th February.	17th February.	24th February.	3rd March.	For whole month, February 1900.
	°	°	°	°	°
Burma	+3·4	+2·1	+0·7	+0·7	+2·1
Assam	+1·5	+2·6	+0·1	−1·2	+1·5
Bengal	+3·5	+4·3	+0·4	+0·4	+3·1
Orissa	+5·8	+5·0	+2·5	+2·0	+4·2

Province or Division.	Variation from normal of mean temperature for week ending				
	10th February.	17th February.	24th February.	3rd March.	For whole month, February 1900.
	°	°	°	°	°
Bihar	+0·5	+2·6	+0·1	0	+1·3
Chota Nagpur	+3·8	+5·7	+1·3	+0·5	+3·5
North-Western Provinces and Oudh.	+0·8	+2·8	+1·2	+2·0	+1·7
Punjab	+0·9	+0·6	+2·7	+3·0	+1·8
Sind	+1·6	+2·3	+3·1	+2·7	+1·9
Rajputana	+3·7	+3·4	+2·5	+2·6	+3·1
Gujarat	+3·7	+0·7	+0·7	−0·2	+1·6
Central India	+2·5	+3·2	+1·0	+1·7	+2·6
Central Provinces	+5·3	+4·6	+1·9	+1·6	+3·9
Berar	+5·9	+3·8	+1·4	+3·0	+3·8
West Coast	+1·7	−0·2	+0·6	−0·4	+0·6
Bombay Deccan	+4·7	+2·1	+1·1	+2·1	+2·7
Mysore	+3·1	+3·2	+3·2	+3·1	+3·0
Madras Coast	+1·5	+1·8	+1·4	+2·1	+1·5
Madras Deccan	+4·1	+4·8	+3·7	+3·2	+4·0
South India	+3·1	+2·3	+3·1	+2·2	+2·8

The most marked features in the temperature conditions of the month were the steady, almost uninterrupted, deficiency of temperature over the west of the Peninsula, the steady uninterrupted excess of temperature over the centre and east of the Peninsula, and the unsteady temperature in Northern India, due to the passage of four waves which advanced through Persia and Baluchistan and crossed Northern India from west to east. The advance of the first wave is shown as follows :—

Date.	Warm wave.		Cool wave.	
	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°		°
February 9th	Jaipur	+10·2		
,, 10th	Deesa	+9·1		
,, 11th	Saugor	+10·9	Dera Ismail Khan.	−3·1
,, ,,	Khandwa	+10·9		
,, 12th	Ranchi	+11·5	Montgomery	−3·3
,, 13th	Balasore	+10·2	,,	−5·8
,, 14th			,,	−3·3
,, ,,			Sirsa	−2·1

The advance of the second wave is shown below :—

Date.	Warm wave.		Cool wave.	
	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°		°
February 13th	Baghdad	+6·6		
,, 13th	Bushire	+2·3		
,, 13th	Teheran	+2·3		
,, 13th	Ispahan	+2·4		
,, 15th			Baghdad	−1·2
,, 16th	Quetta	+10·2	Murree	−8·2
,, 17th	Jaipur	+8·3	Cherat	−7·8
,, 18th	Jhansi	+7·3	Montgomery	−4·2
,, 19th	Balasore	+7·4	Sambhar	−2·9
,, 20th			Nowgong	−0·1
,, 21st			Jessore	−0·7

The passage of the third wave is shown as follows : —

Date.	Warm wave.		Cool wave.	
	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°		°
February, 20th	Baghdad	+3·8		
,, 21st	Bushire	+1·2		
,, ,,	Teheran	+8·8		
,, ,,	Ispahan	+7·1		
,, 22nd	Mooltan	+7·4	Baghdad	+1·5
,, 23rd	Jacobabad	+9·4		
,, ,,	Mooltan	+9·2		
,, 24th	Ajmer	+6·6	Chaman	−4·5
,, ,,	Saugor	+7·8	D. I. Khan	−4·9
,, 25th	Jhansi	+6·3	Chaman	−6·7
,, ,,	Sutna	+7·2	Murree	−10·3
,, 26th	.....	...	Neemuch	−6·0
,, 27th	.....	...	Neemuch	−2·6
,, ,,			Jaipur	−3·1

The passage of the fourth wave is shown as follows :—

Date.	Warm wave.		Cool wave.	
	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°		
February 24th .	Baghdad .	+ 5·4		
,, 25th .	Bushire . .	+ 4·0		
,, 26th .	Teheran . .	+12·4		
,, ,, .	Ispahan . .	+13·4		
February 27th .	Jacobabad .	+5·1	Teheran .	+5·2
,, 28th .	Quetta . .	+9·3	Ispahan . .	+1·3
March 1st .	Bikaner . .	+7·5		
,, 2nd .	Bikaner . .	+11·3		
,, ,, .	Ajmer . .	+11·9		
,, 3rd .	.....	...	Rawalpindi .	—3·2

Winds.

The mean pressure conditions of the month over India were very nearly normal and the air movement exhibited only slight departures from the average conditions.

The winds varied slightly and irregularly from the normal in the Bay and Burma, the only important variation being a slight deficiency in the amount of easting at Port Blair. The velocity was lower than usual on the mean of the month, except at Diamond Island, while the wind was more unsteady than usual, except at Port Blair. The following gives comparative data for steadiness and velocity for the different stations in the division :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal. February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
Port Blair . .	91	74	+17	95	121	—26
Rangoon . .	16	17	— 1	86	91	— 5
Diamond Island .	71	85	—14	273	195	+78
Akyab . . .	34	47	—13	74	85	—11

At False Point the wind blew from the normal direction and was both stronger and steadier than usual, but at the stations in Bengal the direction, steadiness and velocity of the wind varied irregularly from the normal. In the Gangetic Plain, on the contrary, the mean direction of the wind was almost exactly normal and the steadiness was about the average, although the velocity was somewhat higher than usual. The following gives data for the different stations in this division :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
				°	°			
Hazaribagh .	54	55	— 1	N 76 W	N 62 W	174	172	+ 2
Darbhanga . .	39	47	— 8	S 77 W	S 78 W	99	90	+ 9
Allahabad . .	45	34	+11	N 60 W	N 63 W	125	100	+25

In the Upper Sub-Himalayas there was a steady north-westerly to west-north-westerly wind with a somewhat higher velocity than usual. The wind was weaker than usual at most of the Indus Valley stations, while the direction varied irregularly from the normal. The following gives data for this division:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
				°	°			
Peshawar . .	14	9	+ 5	N 36 W	N 9 W	39	82	—43
Jacobabad . .	12	24	—12	N 7 E	N 21 E	79	71	+ 8
Kurrachee . .	29	20	+ 9	S 79 W	N 69 W	180	249	—69

In Eastern Rajputana there was an unsteady north-westerly wind, while at Deesa the wind was both steadier and stronger than usual. The following gives comparative data for the different divisions of Northern India :—

Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
				°	°			
Punjab	37	27	+10	N 45 W	N 30 W	46	60	—14
Sind	21	22	— 1	N 42 W	N 23 W	130	160	—30
Rajputana	32	32	0	N 31 W	N 10 W	161	152	+ 9
N.-W. P. and Oudh	46	36	+10	N 69 W	N 69 W	85	68	+17
Bengal	24	24	0	N 32 W	S 86 W	126	126	0
Bihar	39	47	— 8	S 77 W	S 78 W	99	90	+ 9
Chota Nagpur	54	55	— 1	N 76 W	N 62 W	174	172	+ 2

The wind was generally more northerly than usual over the Deccan districts of Bombay and was more wester y than usual over the Central Provinces. The wind was stronger and steadier than usual at Poona, Akola, Buldana and Khandwa, but varied irregularly from the norma lat the remaining stations.

The wind was more than usually westerly along the West Coast. This is shown by the following table :—

Station.	Mean wind direction.		
	Actual, February 1900.	Normal, February.	Westerly deflection.
	°	°	°
Bombay	N 19 W	N 3 W	+16
Karwar	N 63 W	N 53 W	+10

The wind was steadier than the average at both Bombay and Karwar, but was lighter than usual at the former and stronger than usual at the latter station. The following gives comparative data :—

Station.	Mean steadiness			Mean wind velocity in miles per diem.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
Bombay	64	58	+6	229	254	—25
Karwar	78	69	+9	108	86	+22

In South India the winds were generally less steady than usual and were more southerly than the average. The following gives data as regards direction and steadiness :—

Station.	Mean steadiness.			Mean wind direction.	
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.
				°	°
Salem	43	51	— 8	N 82 E	E
Chitaldroog	25	48	—23	S 79 E	N 89 E
Bangalore	55	65	—10	S 67 E	S 69 E
Hassan	62	67	— 5	S 68 E	S 85 E
Mysore	48	67	—19	S 70 E	N 87 E
Madras	85	69	+16	S 57 E	S 85 E
Bellary	28	47	—19	S 7 W	S 57 E

The following gives comparative data of the mean air movement, direction and steadiness in the different divisions of the Peninsula :—

Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal February 1900.	Actual, February 1900	Normal, February.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
				°	°			
Central Provinces	22	27	— 5	N 3 E	N 19 E	126	108	+18
Berar	42	25	+17	N 37 W	N 16 W	155	123	+32
Deccan	31	28	+ 3	S 58 W	S 41 E	174	163	+11
Madras Coast	64	60	+ 4	S 77 E	S 87 E	105	124	—19
Mysore	48	62	—14	S 71 E	S 84 E	134	138	— 4
West Coast	71	64	+ 7	N 41 W	N 28 W	169	170	— 1
South India	43	51	— 8	N 82 E	E	103	128	—25

At the hill stations in Northern India the wind was, on the whole, less steady and less strong than usual, while at the central Hill Stations the wind was less westerly than usual and stronger and steadier than the average. The following gives data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
Leh	12	23	—11	S 32 E	S	31	29	+ 2
Srinagar	11	13	— 2	N 62 W	S 24 E	83	74	+ 9
Kailang	73	66	+ 7	S 74 W	S 72 W	17	27	—10
Simla	22	22	0	S 30 E	S 20 E	81	131	—50
Chakrata	11	2	+ 9	S 74 E	S 20 W	201	134	+67
Ranikhet	21	20	+ 1	N 74 W	S 51 W	54	57	— 3
Katmandu	21	48	—20	S 76 W	N 86 W	26	29	— 3
Darjeeling	39	31	+ 8	S 43 W	S 79 W	168	137	+31
Mount Abu	31	27	+ 4	N 55 W	N 63 W	172	140	+32
Pachmarhi	41	25	+16	N 37 W	N 64 W	122	98	+24
Chikalda	29	24	+ 5	N 38 W	N 83 W	183	148	+35

At Wellington in South India the air movement was about the normal and over the Arabian Sea and the Bay of Bengal the mean air movement was also about the normal.

In Equatorial regions the variations of the wind from the normal were irregular. At Zanzibar the wind was more easterly and was lighter and less steady than usual, while at the Seychelles the wind was less westerly than the normal, but was about the normal strength. The following gives data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, February 1900.	Normal percentage, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
Zanzibar	27	63	—36	N 41 E	N 34 E	130	159	—29
Seychelles	48	56	— 8	N 22 W	N 27 W	140	145	— 5

The abnormal features of the air movement were feebly marked generally. The chief features were—

(1) A stronger and more general north-westerly wind than usual over Northern India.

(2) Irregular winds over the Bay area.

(3) More southerly winds than usual over South India.

(4) Normal air movement in the Indian Seas.

The following gives comparative data of the mean air movement for the various provinces based on Table I :—

PROVINCE OR DIVISION.	MEAN WIND VELOCITY IN MILES PER DIEM.		
	Average actual, February 1900.	Average normal, February.	Variation of actual from normal, February 1900.
Burma	82	86	— 4
Assam	101	72	+29
Bengal	60	86	—26
Orissa	158	118	+40
Bihar	96	67	+29
Chota Nagpur	79	156	—77
North-Western Provinces and Oudh.	67	77	—10
Punjab	70	60	+10
Sind	115	163	—48
Rajputana	113	113	0
Gujarat	134	146	—12
Central India	96	110	—14
Central Provinces	72	74	— 2
Berar	134	91	+43
West Coast	149	192	—43
Bombay Deccan	166	168	— 2
Mysore	137	86	+51
Madras Coast	182	122	+60
Madras Deccan	134	94	+40
South India	94	108	—14

Humidity and Cloud.

The air remained drier than usual over the greater part of the country, and, as in the preceding three or four months, the deficiency in the humidity was largest and most pronounced within an area which covered the west of the Central Provinces, Berar and the Bombay Deccan. The mean humidity was, on the other hand, in excess over West Bengal, the Bay area and the greater part of the Punjab and Baluchistan.

The air was drier than usual on the mean of the month at Rangoon, where the mean temperature was 2½° above the normal, so that the mean humidity was less than usual, but at Port Blair and Diamond Island the air was considerably damper than the average, so that, notwithstanding the high temperature prevailing, the mean humidity was above the normal. The following gives comparative data for this area :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Rangoon . . .	·560	·574	—·014	60	63	—3
Port Blair . . .	·866	·810	+·056	77	76	+1
Diamond Island . .	·741	·678	+·063	73	72	+1

In Bengal, Orissa and West Bengal the absolute humidity of the air was considerably above the normal, so that, notwithstanding the high temperature prevailing, the mean humidity exceeded the normal. The excess was small, except at the stations for which comparative data are given below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"			%	
Darbhanga . . .	·420	·382	+·038	68	63	+5
Hazaribagh . . .	·306	·253	+·053	47	42	+5
False Point .	·773	·628	+·145	81	78	+3

At Allahabad the air was damper than usual, but the temperature was in slight excess and the relative humidity was consequently in defect. The following gives data for this station :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Allahabad . . .	·348	·330	+·018	55	56	—1

In other parts of the North-Western Provinces as well as in the Eastern Punjab the air was drier than usual, and the heat normal or in excess, so that the mean humidity was generally deficient. The following gives data :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Dehra Dun . . .	·275	·283	—·008	61	62	—1
Roorkee . . .	·281	·291	—·010	57	61	—4
Meerut . . .	·291	·294	—·003	52	58	—6
Ludhiana . . .	·271	·303	—·032	56	64	—8

Peshawar was an exception to the conditions prevailing in other parts of the Punjab, both the absolute and relative humidities having been in excess, as is shown below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Peshawar . . .	·267	·233	+·034	63	58	+5

In Sind and Rajputana the air was drier, the temperature was higher and the relative humidity was lower than usual. The deficiency was greatest in Rajputana, as is shown by the data for Jaipur and Deesa :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Jaipur	·234	·256	—·022	35	43	—8
Deesa	·173	·229	—·056	23	30	—7

In the Deccan the air was very dry, while there was a general and considerable excess of temperature. Consequently there was a large deficiency in the relative humidity, a deficiency which amounted to 10 or more at the following stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Buldana	·148	·277	—·129	17	34	—17
Khandwa	·198	·307	—·109	23	40	—17
Sholapur	·225	·320	—·095	22	35	—13
Nagpur	·287	·337	—·050	32	42	—10

Very low humidity readings were recorded in this division, during the month. The following were the more important :—

Station.	Date.	Hour.	Lowest humidity recorded during February 1900.
			%
Buldana	1st Feb.	4 P.M.	9
	4th "	"	8
	5th "	10 A.M.	9
	" "	4 P.M.	6
	6th "	"	8
Khandwa	6th Feb.	10 A.M.	8
Buldana	7th "	4 P.M.	9
	8th "	"	8
Khandwa	" "	"	9
Buldana	9th "	"	8
	10th "	"	9
Poona	10th "	"	7
Sholapur	" "	"	8
Buldana	12th "	"	5
Poona	" "	"	9
	13th "	"	8
Buldana	13th "	"	5
	14th "	10 A.M.	7
	14th "	4 P.M.	4
Poona	14th "	"	9
Buldana	15th "	"	8
	16th "	"	6
Khandwa	" "	From minima	8
Sholapur	" "	4 P.M.	9
Belgaum	17th "	10 A.M.	9
Nagpur	18th "	4 P.M.	9
Buldana	20th "	"	7
	21st "	10 A.M.	9
	" "	4 P.M.	7
	22nd "	10 A.M.	7
	" "	4 P.M.	8
	27th "	"	8
	28th "	10 A.M.	8
	" "	4 P.M.	8
Khandwa	" "	"	7

Equally or almost equally low humidity readings were recorded in Rajputana during the month. The following table gives examples :—

Station.	Date.	Hour.	Lowest humidity recorded during February 1900.
			%
Deesa	6th Feb.	10 A.M.	6
	" "	4 P.M.	8
Jamnagar	" "	"	5
	7th "	10 A.M.	4
	" "	4 P.M.	7

Station.	Date.	Hour.	Lowest humidity recorded during February 1900.
Deesa	7th Feb.	4 P.M.	7
	15th "	"	9
	16th "	"	8
	18th "	"	7
	19th "	"	8
	21st "	"	9
	22nd "	"	8
Udaipur	22nd "	10 A.M.	7
Deesa	25th "	4 P.M.	8
	26th "	4 P.M.	6
	27th "	"	8
Jamnagar	27th "	"	9
Deesa	28th "	"	8

At the hill stations the absolute humidities of the month were not very low, except in the case of Leh, where, if the record be correct, the following low readings were recorded:—

Station.	Date.	Hour.	Lowest humidity recorded during February 1900.
			%
Leh	1st Feb.	10 A.M.	0
	2nd "	4 P.M.	9
	3rd "	4 P.M.	0
	4th "	10 A.M.	0
	" "	4 P.M.	0
	5th "	10 A.M.	0
	" "	4 P.M.	0
	6th "	"	0
	7th "	"	8
	11th "	"	0
	12th "	"	1
	13th "	"	9
	14th "	10 A.M.	0
	" "	4 P.M.	0
	17th "	10 A.M.	0
	19th "	4 P.M.	0
	22nd "	"	0
	25th "	10 A.M.	8
	27th "	4 P.M.	0

The air was drier and the humidity below the normal at Bombay, but both the absolute and relative humidities were above the normal at Karwar.

The relative humidity was lower than usual at all stations in South India, except Madras, but the variations in the amount of the absolute humidity were irregular. Thus, at Salem, Chitaldroog, Bangalore and Madras, the air was damper than usual, while at the remaining stations it was drier. The following gives comparative data:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Hassan	·356	·381	—·025	47	52	—5
Mysore	·403	·420	—·017	46	51	—5
Bellary	·341	·389	—·048	32	40	—8

At Leh the humidity conditions reported are somewhat doubtful, but at Quetta and at the hill stations in Northern India both the absolute and relative humidities were generally in excess of the normal.

At the hill stations in the central parts of the country, on the contrary, both the absolute and relative humidities were considerably below the normal. At Wellington in South India the air on the mean of the month was somewhat damper than usual, but the mean temperature was high and the relative humidity was lower than the normal. The following gives comparative data for this station:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
	"	"	"	%	%	
Wellington	·311	·290	+·021	57	59	—2

At the extra-Indian stations of Aden, Perim, Zanzibar and the Seychelles the air was damper than usual.

The chief abnormal features in the relative humidity conditions were—

(1) A considerable excess over West Bengal.

(2) A slight excess over the Bay area and over the North Punjab.

(3) A deficiency over the remainder of India, the amount of the deficiency increasing inland and having been greatest and large over Berar and the Bombay Deccan.

The variations of the amount of cloud from the normal differed considerably in general character from those of humidity. Over the greater part of the Indian region the sky was cloudier than usual, and even within the area of greatest deficiency of relative humidity there was a slight excess of cloud.

The amount of cloud was less than usual over the South and East Punjab, the Western desert and North Bombay. The deficiency was generally small only amounting to 0·5 or more in the case of the following three stations :—

Station.	Mean cloud amount.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
Deesa	1·8	2·4	−0·6
Ludhiana	3·8	4·3	−0·5
Kurrachee	2·3	2·8	−0·5

The cloud amount was also less than usual over parts of the West Coast and of the Bombay Deccan. The deficiency was larger than in the more northern area, as will be seen from the following comparative data :—

Station.	Mean cloud amount.		
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.
Belgaum	0·1	1·2	−1·1
Sholapur	0·8	1·5	−0·7

The cloud amount was also in defect over South Madras and Lower Burma. The following gives comparative data :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February 1900.
Bangalore	0·9	1·9	−1·0
Salem	1·3	2·0	−0·7
Madras	2·2	2·8	−0·6
Rangoon	1·0	1·9	−0·9
Diamond Island	1·5	2·2	−0·7

Over the whole of the remainder of India, except locally in North Bihar, the cloud amount was greater than the average. The excess was considerable to large over Deltaic and South-West Bengal, as is shown by the following comparative data :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February, 1900.
False Point	5·5	2·7	+2·8
Saugor Island	4·7	2·2	+2·5
Calcutta	3·6	1·9	+1·7
Chittagong	3·1	1·9	+1·2
Hazaribagh	3·2	2·3	+0·9

The excess was considerable at Nagpur, but over the west of the Central Provinces, Berar and the north of the Bombay Deccan, where, as shown above, the air relatively to the normal was driest, the excess was small. The following gives data for the stations in the dry area :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February, 1900.
Nagpur	2·9	1·9	+1·0
Akola	1·8	1·5	+0·3
Bombay	1·5	1·2	+0·3
Khandwa	1·6	1·4	+0·2
Buldana	1·9	1·8	+0·1
Poona	1·6	1·5	+0·1

In most other places the excess was generally small to moderate, varying from 0·1 to 0·9, but at Bellary there was an area of intensified cloudiness which apparently extended southward as far as Mysore. The following gives comparative data for these two stations :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February 1900.
Mysore	3·0	1·4	+1·6
Bellary	2·7	1·4	+1·3

At the hill stations in the north-west the amount of cloud on the mean of the month was in excess, except at Leh, where locally there was a slight deficiency, agreeing with the local deficiency in moisture noticed in the previous section. The greatest excess of cloud was reported from the stations on the Kumaun Himalayas. The following gives comparative data for Simla and Chakrata :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February 1900.
Chakrata	5·8	4·7	+1·1
Simla	6·7	5·7	+1·0

At the stations in the Eastern Himalayas the sky was less cloudy than usual, more particularly at Darjeeling, where, as is shown below, the deficiency was more than 1 :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February 1900.
Darjeeling	4·6	5·9	−1·3
Katmandu	2·8	3·5	−0·7

At the central and southern hill stations the cloud amount was generally in defect, but at Pachmarhi there was locally a slight excess due to the increased cloudiness over the Central Provinces, of which the observations at Nagpur gave evidence. The following gives comparative data for the central and southern hill stations :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February 1900.
Pachmarhi	2·6	2·1	+0·5
Chikalda	1·4	1·8	−0·4
Wellington	2·6	2·6	0

At the extra-Indian stations the sky was everywhere more cloudy than the normal, more particularly at Perim and Zanzibar. This is shown below :—

Station.	Mean cloud amount.		
	Actual, February, 1900.	Normal, February.	Variation of actual from normal, February 1900.
Perim	4·4	2·4	+2·0
Zanzibar	5·4	4·0	+1·4
Aden	4·8	3·9	+0·9
Seychelles	6·6	6·5	+0·1

The following are the chief abnormal features in the cloud conditions in February, 1900 :—

(1) The sky was less cloudy than usual over the greater part of the plains of North-Western India, over part of the west and south of the Peninsula, in Lower Burma and in North Bihar.

(2) The sky was also clearer than usual over the stations in the Eastern Himalayas and at most of the central and southern hill stations.

(3) The cloud amount was generally above the normal over the remainder of India.

(4) The excess was considerable to large over Deltaic and South-West Bengal and the east of the Central Provinces.

(5) Cloud was in excess at Quetta, Aden, Perim and Zanzibar, and probably at the Persian stations.

Rainfall.

The rainfall of the month of February, 1900, was below the normal over by far the greater part of India, and was above it only in East Bengal, the Assam Hills, Deltaic Bengal, North Bengal, North Bihar, the North Punjab, the centre and west of the Central Provinces and the Jeypur division of the north division of the East Coast.

The rainfall of the month occurred during the passage of six depressions across Northern India. These depressions occurred between the 6th and the 28th, consequently, although the rainfall was so light, the weather was nevertheless very constantly slightly disturbed throughout the month. The principal periods of disturbed weather were, however, as follows :—

1st.—The 1st and 2nd, when Bihar, Chota Nagpur division and the North-Western Provinces,

except the central, received light to moderate rain and Baluchistan and Kashmir light showers.

2nd.—The 7th to the 9th, when Punjab, North-Western Provinces (Submontane), Baluchistan and Kashmir obtained light showers.

3rd.—The 10th to the 12th, when practically the whole of Northern India received rain, but specially the North-West and South Punjab, where moderate rain was received.

4th.—The 14th, when showers fell over Lower Bengal.

5th.—The 16th to the 19th, when a large part of Northern India again received rain.

6th.—The 24th to the 27th, when the greater part of Northern India, East Coast (North), Madras (South) and Travancore received rain.

The rainfall of the month was absolutely or practically *nil* in 28 divisions, including the Burma divisions, Oudh (South), North-Western Provinces (Central and West), South-East Punjab, Bombay and Malabar Coast districts, Berar, Bombay (North), Rajputana and Central India and Madras [excepting East Coast (North) and Madras (South).] It was over 50 per cent. in defect in 5 divisions, including Bengal Hills, Chota Nagpur and South, Central and Sub-montane Punjab, and over 20 per cent. in defect in 10 divisions, including Orissa, South Bihar, North-Western Provinces (East, North and East and West Sub-montane), West Punjab, Baluchistan Hills, East Coast (North) and South Madras.

The total rainfall of the month was normal, *i.e.*, varied by 20 per cent. or less than 20 per cent. from the average in 5 divisions, and exceeded the normal in the following nine divisions, *viz.*, Eastern Bengal (+72 per cent.), Assam Hills (+23 per cent.), Deltaic Bengal (+47 per cent.), North, Bengal (+50 per cent.), North Bihar (+4 per cent.) North Punjab (+11 per cent.), Central Provinces (West) (+33 per cent.), Central Provinces (Central) (+25 per cent.) and East Coast (North) (*a*) (+76 per cent.).

The following table gives mean actual, mean normal and variation rainfall data for the 57 meteorological divisions or districts into which India is divided in the same form as in previous months and has been prepared in the same manner as hitherto :—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, February 1900.	Average normal, February.	Average actual, February 1900.	Average normal, February.	Variation of actual from normal, February 1900.
				Inches.	Inches.	Inch.
Burma	Tenasserim	0.9	...	0.67	...	...
	Lower Burma (Deltaic)	0	...	0	...	...
	Central ditto	0	...	0	...	...
	Upper ditto	0·2	...	0·05	0·10	—0·05
	Arakan	0·1	...	0·02	...	...
Bengal and Assam	Eastern Bengal	3·1	1·6	1·70	0·99	+0·71
	Assam (Surma)	4·1	3·0	1·95	1·78	+0·17
	Do. (Hills)	3·7	2·6	1·71	1·25	+0·46
	Do. (Brahmaputra)	3·6	3·3	1·30	1·29	+0·01
	Deltaic Bengal	3·2	1·5	1·82	1·24	+0·58
	Central do.	1·6	1·5	0·78	0·86	—0·08
	North do.	1·9	1·1	0·78	0·52	+0·26
	Bengal Hills	1·7	2·2	0·38	0·83	—0·45
	Orissa	1·3	1·4	0·58	0·83	—0·25
	Chota Nagpur	0·1	1·6	0·35	0·84	—0·49
	Bihar (South)	1·4	1·4	0·50	0·64	—0·14
	Do. (North)	1·4	1·2	0·51	0·49	+0·02
North-Western Provinces and Oudh.	North-Western Provinces (East)	0·9	0·8	0·25	0·34	—0·09
	Oudh (South)	0·2	0·6	0·09	0·23	—0·14
	Do. (North)	0·5	0·8	0·20	0·31	—0·11
	North-Western Provinces (Central)	0	0·6	0·01	0·22	—0·21
	Do. do. (West)	0	0·8	0·01	0·32	—0·31
	Do. do. (East Submontane)	1·0	1·0	0·31	0·41	—0·10
	Do. do. (West do.)	1·4	2·0	0·53	1·05	—0·52
	Do. do. (Hills)	0·4	4·0	1·97	2·07	—0·10
Punjab	Punjab (South-East)	0·1	1·0	0·04	0·41	—0·37
	Do. (South)	0·6	1·1	0·19	0·43	—0·24
	Do. (Central)	1·6	2·0	0·43	0·89	—0·46
	Do. (Submontane)	1·4	2·4	0·44	1·34	—0·90
	Do. (Hills)	5·3	4·5	2·55	3·19	—0·64
	Do. (North)	3·7	2·6	1·57	1·42	+0·15
	Do. (West)	1·1	1·1	0·29	0·43	—0·14

Province.	Division.	Number of rainy days. Average actual, February 1900.	Number of rainy days. Average normal, February.	Rainfall. Average actual, February, 1900.	Rainfall. Average normal, February.	Rainfall. Variation of actual from normal February 1900.
				Inch.	Inches.	Inch.
Bombay and Malabar Coast Districts (Madras).	Malabar	0	0·4	0	0·21	−0·21
	Travancore	0·8		0·39		
	Madras (South Central)	0	0·7	0	0·34	−0·34
	Coorg	0		0		
	Mysore*	...	...	0·01	0·04	−0·03
	Konkan	0	0	0	0	0
	Bombay Deccan	0	0·1	0	0·03	−0·03
	Hyderabad North*	...	...	0	...	...
	Khandesh	0	0	0	0·03	−0·03
Central Provinces and Berar.	Berar*	...	...	0·05	0·21	−0·16
	Central Provinces (West)	0·3	0·5	0·28	0·21	+0·07
	Do. (Central)	0·4	0·6	0·30	0·24	+0·06
	Do. (East)	0·8	0·6	0·33	0·33	0
Bombay (North)	Gujarat	0	0	0	0·02	−0·02
	Kathiawar and Cutch	0	0	0	0·09	−0·09
	Sind	0	...	0·01	0·31	−0·30
	Baluchistan Hills	0·8	...	0·99	1·90	−0·91
Rajputana and Central India.	Central India (East)	0	...	0·01	0·39	−0·38
	Rajputana (East), Central India (West)	0	...	0	0·23	−0·23
	Rajputana (West)	0	...	0	0·11	−0·11
Madras	East Coast (North)	0·3	0·5	0·16	0·22	−0·06
	Do. (do.) (a)	0·5	0·5	0·44	0·25	+0·19
	Hyderabad (South)*	...	...	0	...	...
	Madras (Central)	0	0	0	0·05	−0·05
	East Coast (Central)	0	0·1	0	0·19	−0·19
	Do. (South)	0	0·6	0·04	0·44	−0·40
	Madras (South)	0·7	1·1	0·54	0·85	−0·31

* The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Burma was practically rainless throughout the month, though Tenasserim, Upper Burma and Arakan had a few light showers. In Tenasserim the fall occurred about the 24th to the 27th, and in Upper Burma occurred as scattered showers on the 8th and the 28th. In Assam there were four periods of rainfall agreeing with the advance eastward of the three depressions which crossed India between the 10th and the 12th, the 16th and the 19th, and the 24th and the 27th. In the case of the hill districts the total rainfall of the month was moderately (37 per cent.) above the normal, while in the Assam and Cachar Valleys the total rainfall was approximately normal.

The following gives comparative data for each of the eight plain districts of the province:—

District.	Rainfall. Average actual, February 1900.	Rainfall. Average normal, February.	Rainfall. Variation of actual from normal, February 1900.	Rainfall. Percentage variation from normal.
	Inches.	Inches.	Inch.	
Cachar	1·79	2·07	−0·8	−14
Sylhet	2·15	1·51	+0·64	+42
Goalpara	0·46	0·55	−0·09	−16
Kamrup	0·79	0·73	+0·06	+8
Darrang	0·80	0·89	−0·09	−10
Nowgong	0·83	0·79	+0·04	+5
Sibsagar	2·23	1·69	+0·54	+32
Lakhimpur	2·39	2·65	−0·26	−10

There were five disturbed periods in Bengal corresponding with the first, third, fourth, fifth and sixth storms of the month. During the first disturbed period the rainfall was confined to Bihar and Chota Nagpur, and was nowhere heavy, the falls in 24 hours only exceeding half an inch in the following few cases :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PALAMAU	Husainabad	1st Feb.	1·40
GAYA	Aurungabad	,, ,,	1·08
SHAHABAD	Bassonwan	,, ,,	0·83
GAYA	Gava	,, ,,	0·80
HAZARIBAGH	Karagdeha	,, ,,	0·80
GAYA	Daudnagar	,, ,,	0·66
,,	Jahanabad	,, ,,	0·63
SHAHABAD	Sasaram	,, ,,	0·62
MONGHYR	Khargpur	2nd ,,	0·56

The second disturbed period which included the third and fourth periods of rainfall, noticed above, was confined to South-West and East Bengal and Orissa, and lasted from the 12th to the 14th. The rainfall was not much heavier than during the previous rainfall period, but exceeded one inch in 24 hours in the following cases :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BIRBHUM	Rampur Hat	12th Feb.	1·24
MURSHIDABAD	Berhampore	,, ,,	1·05
HILL TIPPERA	Agartala	13th ,,	5·71
,,	,,	14th ,,	2·21
JESSORE	Jessore	,, ,,	1·20
TIPPERA	Brahmanbaria	,, ,,	1·17
JESSORE	Narail	,, ,,	1·10

The third period occurred on the 18th and 19th. The fall was very general over Bengal, but hardly extended into Bihar or Chota Nagpur. The rainfall was not only more extensive, but was heavier than during the two preceding periods, and falls of one inch or more in 24 hours were recorded at the following places :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NADIA	Ranaghat	18th February	2·73
MURSHIDABAD	Lalgola	,, ,,	2·00
MIDNAPORE	Garhbeta	,, ,,	1·93
BANKURA	Vishnupur	,, ,,	1·80
NADIA	Chuadangah	,, ,,	1·65
KHULNA	Dumuria	,, ,,	1·56
BACKERGUNGE	Pirojpur	,, ,,	1·53
FARIDPUR	Goalundo	,, ,,	1·49
24-PARGANAS	Barasat	,, ,,	1·40
KHULNA	Bagerhat	,, ,,	1·38
BANKURA	Kotalpur	,, ,,	1·32
BACKERGUNGE	Patuakhali	,, ,,	1·25
BANKURA	Indus	,, ,,	1·20
FARIDPUR	Madaripur	,, ,,	1·15
KHULNA	Khulna	,, ,,	1·12
JESSORE	Bangaon	,, ,,	1·06
HILL TIPPERA	Agartala	,, ,,	1·01
PURNEA	Araria	19th ,,	2·13
JALPAIGURI	Debiganj	,, ,,	2·00
KHULNA	Kaliganj	,, ,,	2·00
CHITTAGONG	Mirsarai	,, ,,	1·65
DACCA	Jaydebpur	,, ,,	1·60
CHITTAGONG	Fenoa	,, ,,	1·48
RANGPUR	Nilphamari	,, ,,	1·43
MYMENSING	Kishoreganj	,, ,,	1·42
DINAJPUR	Dinajpur	,, ,,	1·39
	Churaman	,, ,,	1·37
BURDWAN	Kalna	,, ,,	1·35
DINAJPUR	Ramganj	,, ,,	1·33
PURNEA	Forbesganj	,, ,,	1·30
DINAJPUR	Setahganj	,, ,,	1·21
JESSORE	Magura	,, ,,	1·20
PURNEA	Kishanganj	,, ,,	1·15
CHITTAGONG	Cox's Bazar	,, ,,	1·05
JESSORE	Ghenidah	,, ,,	1·00

The last fall of rain occurred between the 24th and the 27th, and extended throughout Bengal Proper, Bihar, Chota Nagpur and Orissa. The rainfall was heaviest in the south-west division, as is shown by the following

table, which gives the falls of one inch and over in 24 hours :—

District	Stations.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches
Khulna	Kalaroa	25th February	1·05
Jessore	Jessore	26th ,,	3·40
Burdwan	Kalna	,, ,,	2·15
Nadia	Ranaghat	,, ,,	1·98
Jessore	Bangaon	,, ,,	1·88
Khulna	Khulna	,, ,,	1·60
	Dumuria	,, ,,	1·40
Burdwan	Burdwan	,, ,,	1·39
Chittagong Hill Tracts.	Rangamati	27th ,,	1·20
Backergunge	Patuakhali	,, ,,	1·00
Chittagong	Satkania	28th ,,	1·35
Chittagong Hill Tracts.	Bandarban	,, ,,	1·15

The following statement shows that the rainfall of the month was above the normal in Northern, Eastern and Deltaic Bengal, about normal in Central Bengal and North Bihar, and below the normal elsewhere :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, February, 1900.	Average normal, February.	Variation of actual from normal, February, 1900.	Percentage variation from normal.	Average actual February, 1900.	Average normal, February.
	Inches.	Inches.	Inch.			
Eastern Bengal	1·70	0·99	+0·71	+72	3·1	1·6
Deltaic Bengal	1·82	1·24	+0·58	+47	3·2	1·5
Central Bengal	0·78	0·86	—0·08	— 9	1·6	1·5
North Bengal	0·78	0.52	+0·26	+50	1·9	1·1
Bengal Hills	0.38	0·83	—0·45	—54	1·7	2·2
Orissa	0·58	0·83	—0·25	—30	1·3	1·4
Chota Nagpur	0·35	0·84	—0·49	—58	0·1	1·6
South Bihar	0·50	0·64	—0·14	—22	1·4	1·4
North Bihar	0·51	0·49	+0·00	+ 4	1·4	1·2

The rainfall of the month was light over the North-Western Provinces, more particularly so in the central and west divisions. Rain occurred over Oudh and the eastern submontane divisions of the North-Western Provinces on the 1st, but the amounts were not large and only exceeded half an inch in the following cases :—

District	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Moradabad	Moradabad	1st February	1·86
Hardoi	Shahabad	,, ,,	0·99
Gorakhpur	Padrauna	,, ,,	0·75
Pilibhit	Bilaspur	,, ,,	0·73
Bareilly	Mirganj	,, ,,	0·71
Gonda	Atraula	,, ,,	0·63
Pilibhit	Pilibhit City	,, ,,	0·58
	Kachahri	,, ,,	0·57
Farukhabad	Aligarh	,, ,,	0·55
Kheri	Muhamdi	,, ,,	0·53
Gorakhpur	Maharajganj	,, ,,	0·52
Basti	Domariaganj	,, ,,	0·52
Kheri	Kheri	,, ,,	0·51

In the submontane division there was rain on the 1st, between the 8th and the 12th, on the 17th and 18th and on the 24th and 25th, but in the remaining divisions the rainfall was unimportant and the following statement shows that the rainfall over the whole Division was below the normal :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, February, 1900.	Average normal, February.	Variation of actual from normal, February, 1900.	Percentage variation from normal.	Average actual, February, 1900.	Average normal, February.
	Inches.	Inches.	Inch.			
North-Western Provinces (East)	0·25	0·34	—0·09	—26	0·9	0·8
South Oudh	0·09	0·23	—0·14	—61	0·2	0·6
North Oudh	0·20	0·31	—0·11	—35	0·5	0·8
North-Western Provinces (Central).	0·01	0·22	—0·21	—95	0	0·6
North-Western Provinces (West).	0·01	0·32	—0·31	—97	0	0·8
North-Western Provinces East Submontane.	0·31	0·41	—0·10	—24	1·0	1·0
North-Western Provinces West Submontane.	0·53	1·05	—0·52	—49	1·4	2·0
North-Western Provinces, Hills.	1·97	2·07	—0·10	— 5	0·4	4·0

The Punjab obtained frequent light rain during the month. The chief disturbed periods were, however, the 1st to the 3rd, the 10th and 11th, the 17th and 18th, and the 24th and 25th, so that the Punjab received rain during four out of the six disturbed periods of the month. The second and third falls, *viz.*, those on the 10th and 11th and those on the 17th and 18th, were heavier and more extensive than the preceding and succeeding falls, but even on these two occasions the only amounts exceeding or equalling one inch were as follows :—

District	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GURDASPUR	Madhopur	10th February	1·30
	Dalhousie	,, ,,	12·5
SIMLA	Kotgarh	,, ,,	1·13
KANGRA	Kulu	11th ,,	1·48
	Palampur	,, ,,	1·46
GURDASPUR	Dalhousie	,, ,,	1·33
KANGRA	Nagar	,, ,,	1·25
GURDASPUR	Pathankot	,, ,,	1·12
KANGRA	Nurpur	,, ,,	1·08
	Nagar	17th ,,	2·15
RAWALPINDI	Murree	,, ,,	1·80
HAZARA	Mansehra	,, ,,	1·40
	Abbottabad	,, ,,	1·37
SIMLA	Kilba	,, ,,	1·10
PESHAWAR	Lahor	,, ,,	1·00

The following statement shows that the total fall of the month was normal in the North Punjab, but was moderately to largely below the normal elsewhere :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, February 1900.	Average normal, February.	Variation of actual, from normal, February 1900.	Percentage variation from normal.	Average actual, February 1900.	Average normal, February.
	Inches.	Inches.	Inch.			
South-East Punjab	0.04	0·41	—0·37	—90	0·1	1·0
South Punjab	0·19	0·43	—0·24	—56	0·6	1·1
Central Punjab	0·43	0·89	—0·46	—52	1·6	2·0
Punjab Submontane	0·44	1·34	—0·90	—67	1·4	2·4
Punjab Hills	2·55	3·19	—0·64	—20	5·3	4·5
North Punjab	1·57	1·42	+0·15	+11	3·7	2·6
West Punjab	0·29	0·43	—0·14	—33	1·1	1·1

Baluchistan obtained frequent rain during February the principal falls occurring between the 6th and the 11th, between the 15th and the 17th, and between the 20th and the 24th. The daily amounts were generally small, and the total rainfall for the month was only about half the normal average. This is shown by the following comparative statement :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, February. 1900.	Average normal, February.	Variation of actual from normal, February 1900.	Percentage variation from normal.	Average actual, February. 1900.	Average normal, February.
	Inch.	Inches.	Inch.			
Baluchistan Hills	0·99	1·90	—0·91	— 48	0·8	...

Kashmir received frequent falls of rain or snow during the month, but as in Baluchistan the daily falls were small and the total amount for the month was, so far as can be ascertained, less than usual. The following gives comparative data for Srinagar and Leh :—

Station.	Rainfall.				Number of rainy days.	
	Average actual, February 1900.	Average normal, February.	Variation of actual from normal, February 1900.	Percentage variation from normal.	Average actual, February 1900.	Average normal, February.
	Inches.	Inch.	Inch.			
Srinagar	2·21	2·94	—0·73	—25	6	...
Leh	0·26	0·36	—0·10	—28	0	...

Western Rajputana was absolutely rainless throughout the month, and Eastern Rajputana was practically rainless. In the Rewah State there were a few light showers on the 1st, but with this exception Central India was as rainless as Rajputana.

The Central Provinces received fair rain during the sixth disturbed period of the month, *i.e.*, between the 24th and the 26th, but the whole of the remainder of the month was without rain. The following gives the amounts

exceeding one inch in 24 hours which were recorded on this occasion :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bhandara	Tirora	24th February	2·21
	Bhandara	" "	2·16
Nagpur	Ramtek	" "	1·90
	Katol	" "	1·47
Balaghat	Lanji	" "	1·45
Chindwara	Sausar	" "	1·35
Raipur	Dhamtari	" "	1·08

It will be noticed that the showers were fairly heavy, and the total rainfall of the month was in excess of the normal in the western and central divisions. The following gives comparative data for the Central Provinces :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, February 1900.	Average normal, February.	Variation of actual from normal, February 1900.	Percentage variation from normal.	Average actual, February 1900.	Average normal, February.
	Inch.	Inch.	Inch.			
Central Provinces West	0·28	0·21	+0·07	+ 33	0·3	0·5
Do. Do. Central	0·30	0·24	+0·06	+ 25	0·4	0·6
Do. Do. East	0·33	0·33	0	0	0·8	0·6

Beyond a few light showers in Sind on the 9th and 10th there was no rain, whatever, throughout the Bombay Presidency during the month of February.

There were some scattered showers in a few districts in the Madras Presidency between the 24th and 27th. These showers were mainly received in the North division of the East coast and in South Madras and equalled or exceeded one inch at the following places :—

District	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ganjam	Daringabadi	22nd February	1·40
Vizagapatam	Parvatipuram	23rd "	1·73
	Jeypore	24th "	1·19
Tinnevelly	Kuttanguli	25th "	2·08
	Ambasamudram	" "	1·98
South Arcot	Tirukkoyilur	" "	1·59
Travancore	Tamaracolum	" "	1·00
Tinnevelly	Kuttanguli	26th "	2·25
Nilgiris	Coonoor	" "	1·70
Madura	Mutturaghunadapalam	" "	1·60
Nilgiris	Kotagiri	" "	1·48
Ganjam	Udayagiri	" "	1·47
Travancore	Quilon	" "	1·15
	Kottarakaray	27th "	1·17

In other parts of the Presidency the month was rainless. The rainfall of the month was below the normal generally, as is shown by the following statement giving a summary of the rainfall data for each district or collectorate of the Madras Presidency :—

District.	Number of rainy days.		Rainfall.			
	Actual, February 1900.	Normal, February.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Percentage variation from normal.
			Inch.	Inch.	Inch.	
Ganjam	0·8	1·0	0·39	0·57	—0·18	— 32
Vizagapatam	0·2	0·8	0·23	0·37	—0·14	— 38
Godavari	0	0·1	0	0·21	—0·21	—100
Kistna	0	0·2	0	0·24	—0·24	—100
Nellore	0	0·1	0	0·19	—0·19	—100
Chingleput	0	0·5	0	0·35	—0·35	—100
Madras	0	0	0	0·28	—0·28	—100
North Arcot	0	0·2	0	0·24	—0·24	—100
South Arcot	0·3	0·6	0·18	0·50	—0·32	— 64
Tanjore	0	0·9	0	0·63	—0·63	—100
Trichinopoly	0	0·5	0	0·46	—0·46	—100
Madura	0	1·0	0·11	0·69	—0·58	— 84

District.	Number of rainy days.		Rainfall.			
	Actual, February 1900.	Normal, February.	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Percentage variation from normal.
			Inches.	Inches.	Inch.	
Tinnevelly . . .	1·0	1·3	1·05	1·00	+0·05	+ 5
Malabar . . .	0	0·6	0	0·31	−0·31	−100
South Canara . .	0	0	0	0·05	−0·05	−100
Salem	0	0·6	0	0·33	−0·33	−100
Coimbatore . . .	0	0·9	0	0·36	−0·36	−100
Nilgiris . . .	1·0	1·6	0·47	1·12	−0·65	− 58
Cuddapah . . .	0	0	0	0·10	−0·10	−100
Anantapur . . .	0	0	0	0·03	−0·03	−100
Bellary . . .	0	0	0	0·03	−0·03	−100
Kurnool . . .	0	0	0	0·04	−0·04	−100

The rainfall of the extra Indian stations is interesting as showing that while over India the rainfall during February 1900 was generally short of the average the reverse was the case with regard to the Extra-Indian stations. The following gives the actual and normal rainfall for February for these stations and the actual rainfall for February 1899 :—

Station.	Rainfall.					
	Actual, February 1900.	Normal, February.	Variation of actual from normal, February 1900.	Actual, February 1899.	Normal, February.	Variation of actual from normal, February 1899.
	Inches.	Inches.	Inches.	Inches.	Inches	Inches.
Baghdad . . .	1·16	2·49	−1·33	0·14	2·49	− 2·35
Bushire . . .	6·65	2·51	+4·14	2·01	2·51	− 0·50
Jask	1·70	1·33	+0·37	0·38	1·33	− 0·95
Aden	1·24	0·33	+0·91	0·96	0·33	+ 0·63
Perim	1·17	0·25	+0·92	0·32	0·25	+ 0·07
Zanzibar . . .	4·51	2·98	+1·53	0·02	2·98	− 2·96
Seychelles . . .	13·45	12·11	+1·34	0·35	12·11	−11·76
Penang . . .	4·00	...	...	2·08	...	...
Singapore . . .	4·14	6·16	−2·02	1·36	6·16	− 4·80

The above shows that while the actual rainfall of February 1900 exceeded the normal almost everywhere, it even more largely exceeded the actual rainfall of February 1899. This is most marked in the case of the Seychelles and Zanzibar, where the rainfall of the present February is in marked contrast to that of the same month last year.

Ta

Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	I.—Burma Coast and Bay Islands.		...	...	−·007	...	...	...	...	...	...	...	91·0	+1·2	71·4	+3·5	81·2	+2·4	19·6	...	...	...	...
1	Tenasserim and Bay Islands.	Car Nicobar	25	*29·934		*29·886	29·956	8th	29·909	21st	·047	*81·9	*88·3		*79·9		*84·1		8·4	89·9	23rd	75·1	28th
		Port Blair	61	29·941	+·010	29·933	30·019	8th	29·871	16th	·148	79·4	88·7		†76·9		†82·7		11·8	91·7	7th	72·3	10th
		Mergui	96	29·888	0	29·916	29·961	7th	29·796	16th	·165	77·7	90·5	+0·7	73·4	+4·8	82·0	+2·8	17·1	93·6	18th	68·9	12th
		Tavoy	26	29·972	−·016	29·929	30·053	8th	29·883	16th	·170	73·4	91·9	+0·8	70·3	+3·0	81·1	+1·9	21·6	94·2	18th	63·0	11th
		Moulmein	94	29·912	−·010	29·914	29·991	8th	29·821	16th	·170	74·5	93·8	+2·5	70·3	+2·8	82·1	+2·7	23·5	95·5	23rd	65·4	9th
2	Lower Burma	Rangoon	41	29·956	−·012	29·934	30·043	8th	29·878	16th	·165	70·2	95·4	+3·0	66·8	?	81·2	?	28·6	97·6	2 days.	62·3	16th
		Bassein	27	29·972	−·003	29·935	30·062	8th	29·904	16th	·158	72·3	92·2	+2·7	69·0	?	80·6	?	23·2	94·2	26th	65·8	9th
		Diamond Island.	41	29·964	−·006	29·940	30·053	8th	29·900	2 days	·153	77·8	84·8	+0·7	75·3	+3·5	80·1	+2·1	9·5	89·6	1st	73·2	2 days
5	Arakan	Akyab*	20	29·988	−·016	29·951	30·074	8th	29·924	2 days	·150	68·1	87·4	+2·8						89·9	2 days		
3	Central Burma	Toungoo	183	29·802	−·010	29·935	29·885	8th	29·728	16th	·157	66·7	93·1	+2·4	60·5	?	76·8	?	32·6	97·2	19th	57·1	17th
	II.—Burma Inland.		...	...	+·012	...	...	...	...	...	...	...	89·9	+1·6	58·7	+2·3	74·3	+2·0	31·1	...	...	...	...
3	Central Burma	Thayetmyo	134	29·855	−·005	29·936	29·928	8th	29·79[illegible]	16th	·133	68·9	95·5	+3·1	58·4	+2·4	77·0	+2·8	37·1	99·9	13th	49·5	22nd
4	Upper Burma	Minbu	165	29·824	−·018	29·937	29·903	7th	29·765	12th	·138	70·1	93·4	+2·2	63·3	+3·8	78·4	+3·0	30·1	98·6	13th	56·1	22nd
		Yamethin	657	29·322	+·003	29·949	29·391	8th	29·263	16th	·128	67·6	94·6	+2·2	59·7	?	77·2	?	34·9	98·0	2 days	53·2	24th
		Mandalay	250	29·764	+·026	29·972	29·847	10th	29·670	12th	·177	69·0	91·2	+1·2	61·7	+2·1	76·5	+1·7	29·5	96·0	13th	58·2	23rd
		Kindat	377	29·643	+·022	29·995	29·712	24th	29·546	14th	·166	59·7	82·0	+1·0	55·2	+1·9	68·6	+1·5	26·8	87·3	2 days	51·8	3 days
		Bhamo	381	29·643	+·043	29·999	29·717	25th	29·516	12th	·201	60·0	82·4	+0·3	54·1	+1·2	68·3	+0·8	28·3	87·5	27th	48·2	25th
4 (a)	Burma Hill Stations.	Maymyo					Not re	corded.				53·3	78·7		39·1		58·9		39·6	83·0	2nd	35·0	24th & 25th.
		Taunggyi					Not re	corded.				60·7	72·7	−3·5	48·0	+1·6	60·4	−1·0	24·7	75·2	25th	40·1	24th
		Lashio		27·150	−·053		27·242	8th	27·092	28th	·150	56·4	80·8	+2·8	49·3	+1·2	65·1	+2·0	31·5	83·6	4th	44·0	23rd
	III.—Assam.		...	...	−·008	...	...	...	...	...	...	...	77·4	+0·8	56·2	+2·1	66·9	+1·5	21·2	...	...	...	...
7	Surma	Silchar	104	29·936	−·001	29·996	29·998	25th	29·838	14th	·160	64·3	82·0	+2·1	58·0	+3·0	70·0	+2·6	24·0	86·5	27th	53·4	3 days
9	Brahmaputra	Sibsagar	333	29·701	−·009	30·010	29·790	8th	29·584	14th	·206	57·3	72·2	−0·5	54·3	+1·2	63·3	+0·4	17·9	78·3	15th	48·9	16th
		Dhubri	115	29·889	−·013	29·966	29·966	24th	29·787	12th	·179	60·9	78·0	+0·9	‡56·2	+2·0	‡67·5	+1·5	21·3	83·1	14th	45·8	7th
	IV.—Bengal and Orissa.		...	...	−·015	...	...	...	...	...	...	...	83·0	+2·2	61·1	+4·6	72·1	+3·4	21·9	...	...	...	...
6	East Bengal	Chittagong*.	87	29·925	−·014	29·963	29·994	8th	29·843	14th	·151	67·5	84·4	+2·9	62·5	+4·0	73·5	+3·5	21·9	86·5	4 days	56·1	24th
		Noakhali	43	29·967		29·958	30·070	8th	29·880	12th	·190	68·5	83·5		59·5		71·5		24·0	86·2	27th	52·4	21st
		Comilla	36	29·995		29·980	30·063	8th	29·913	14th	·150	66·2	83·9		60·9		72·4		23·0	87·4	3rd	56·0	16th & 24th.
		Sirajganj	49	29·954		29·954	30·032	8th	29·850	12th	·132	62·2	81·9		56·6		69·2		25·3	85·8	12th	50·9	7th
		Narayanganj	26	29·987	−·015	29·962	30·061	8th	29·887	12th	·174	67·2	81·8	−0·4	62·0	+4·2	71·9	+1·9	19·8	85·6	2 days	57·3	3 days
		Barisal	13	29·998	−·014	29·957	30·065	8th	29·909	12th	·156	68·9	83·7	+3·7	63·4	+5·3	73·6	+4·5	20·3	86·8	3rd	57·2	21st
		Mymensingh	59	29·946	−·024	29·959	30·013	23rd	29·856	12th	·157	62·4	78·8	+1·0	57·7	+4·1	68·3	+2·6	21·1	83·4	27th	52·0	7th
10	Deltaic Bengal	Faridpur	46	29·971		29·966	30·046	8th	29·873	12th	·173	65·0	82·2		58·2		70·2		24·0	86·8	3rd	52·5	10th
		Jessore	33	29·980	−·013	29·961	30·068	8th	29·888	12th	·180	66·2	82·6	?	60·8	+4·2	71·7	?	21·8	86·5	3rd	55·1	9th
		Calcutta	21	29·993	−·019	29·960	30·084	8th	29·893	12th	·191	69·0	85·0	+3·4	64·4	+4·6	74·7	+4·0	20·6	89·9	27th	58·2	21st
		Saugor Island	25	29·981	−·019	29·951	30·056	8th	29·876	18th	·180	73·7	84·6	+3·7	70·4	+5·3	77·5	+4·5	14·2	88·9	28th	61·6	20th
		Krishnagar	47	29·980		29·978	30·068	8th	29·863	12th	·205	66·0	84·6		58·4		71·5		26·2	88·6	11th	52·2	7th & 9th.
		Midnapore	149	29·857		29·958	29·951	8th	29·741	18th	·210	70·8	88·1		65·7		77·0		22·4	92·3	3 days	59·2	21st

* Mean of 27 days. † Mean of 23 days. ‡ Mean of 14 days.

tions in India, Burma, etc., in February, 1900.

Wind Direction. Number of winds from NE.	E.	SE.	S.	SW	W.	NW	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st January to 28th February 1900.	Normal rainfall for period, 1st January to 28th February.	Variation from normal of period, 1st January to 28th February.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																		0·49	0·54	−0·17					I.—Burma Coast and Bay Islands.		
18		2					N 39° E	5·1	5·1			77°	·839	6·1*	2			1·59						1·30	Car Nicobar.¶	Tenasserim and Bay Islands.	1
12	1	1			2	5	N 15° E	4·0	5·1			86	·868	3·3	0			0	1·17	−1·17	0·03	1·98	− 1·95	0	Port Blair.		
				1			N 67° W	2·5	2·2	2·0	+10	93	·873	3·5	3			3·19	1·89	+1·30	4·08	2·73	+ 1·35	1·23	Mergui.		
							Calm	0·9				91	·758	0·4	1			0·14	0·58	−0·44	0·14	1·10	− 0·96	0·12	Tavoy.		
8	9	6		2	1	2	N 34° E	1·9	2·1	2·4	−13	86	·734	0·5	0	0·45	−0·45	0	0·20	−0·20	0·02	0·71	− 0·69	0	Moulmein.		
2	1		1	10	11	1	S 77° W	3·6		3·9	− 8	86	·632	0·7	0	0·45	−0·45	0	0·34	−0·34	0·12	0·51	− 0·39	0	Rangoon .	Lower Burma.	2
						16	N 45° W	5·1		3·8	+34	88	·700	1·0	0	0·45	−0·45	0	0·30	−0·30	0	0·47	− 0·47	0	Bassein.		
2						4	N 3° W	11·3	11·3	7·2	+57	79	·772	1·4	0	0·40	−0·40	0	0·10	−0·10	0	0·28	− 0·28	0	Diamond Island.		
3	1						N 7° E	3·1		3·4	− 9	85	·588	1·0	0	0·36	−0·36	0	0·11	−0·11	0	0·19	− 0·19	0	Akyab. .	Arakan.	5
2	1	1	1			4	N 3° E	1·3	1·3	1·9	−32	79	·530	0·6	0	0·36	−0·36	0	0·18	−0·18	0	0·30	− 0·30	0	Toungoo .	Central Burma.	3
																		0·02	0·17	−0·15					II.—Burma Inland.		
2	1		2	1	15	5	N 76° W	3·1		4·2	−26	60	·427	0·3	0	0	0	0	0·01	−0·01	0	0·03	− 0·03	0	Thayetmyo .	Central Burma.	3
2		9	2	3	1	7	S 27° W	5·4	6·4			77	·572	1·0	0			0	0·02	−0·02	0	0·06	− 0·06	0	Minbu .	Upper Burma.	4
2		9	3			2	S 40° E	1·6	1·6			72	·486	0	0			0	0·13	−0·13	0	0·23	− 0·23	0	Yamethin.		
2	3	3	4	3		4	S 30° W	2·9	2·9			66	·469	0·8	0			0	0·07	−0·07	0	0·13	− 0·13	0	Mandalay.		
4			1			4	N 26° W	1·6				96	·500	0·8	0			0·09	0·34	−0·25	0·09	0·74	− 0·65	0·09	Kindat.		
10				1		1	N 39° E	1·8	2·1			86	·444	4·4	0			0·03	0·43	−0·40	0·63	1·30	− 0·67	0·03	Bhamo.		
				15	2	6	S 70° W					95	·393												Maymyo.	Burma Hill Stations.	4(a)
		1	12	13	2		S 25° W					54	·287	1·2	0			0	0·65	−0·65	0	0·66	− 0·66	0	Taunggyi .		
												79	·361	3·5	0			0	0·49	−0·49	0	0·56	− 0·56	0	Lashio.		
																		1·05	1·59	−0·54					III.—Assam.		
1	1						S 66° E	1·8	3·1	2·8	+11	85	·521	4·3	2	4·04	−2·04	1·45	2·29	−0·84	2·04	3·01	− 0·97	0·70	Silchar .	Surma.	7
10			1				N 30° E	4·0	3·6	2·2	+64	98	·460	3·6	2	5·30	−3·30	0·89	1·96	−1·07	1·99	3·43	− 1·44	0·30	Sibsagar .	Brammaputra.	9
6	10		2	5	3		N 85° E	5·9	5·9	4·0	+48	84	·457	3·2	2	1·14	+0·86	0·82	0·53	+0·29	0·85	0·92	− 0·08	0·61	Dhubri.		
																		1·18	0·93	+0·25					IV.—Bengal and Orissa.		
15	1	4					N 45° E	4·0	3·9	4·4	−11	86	·584	2·8†	2	1·35	+0·65	0·77	0·81	−0·04	0·77	1·30	− 0·53	0·42	Chittagong .	East Bengal.	6
8	7	1	2	4		1	N 59° E	2·0	1·8			87	·606	4·0	3	1·73	+1·27	0·79	1·02	−0·23	0·79	1·49	− 0·70	0·34	Noakhali.		
1	3	1	6	1			S 53° E	2·4				77	·493	2·8	5	2·10	+2·90	2·07	0·99	+1·08	2·07	1·52	+ 0·55	0·95	Comilla.		
1	1		3	5	4	2	S 67° W	2·4	2·5			85	·479	2·7	1	1·64	−0·64	0·38	1·02	−0·64	0·63	1·47	− 0·84	0·17	Sirajganj.		
5	3	1	4	3	1	4	N 14° E	3·4		2·6	+31	81	·547	3·5§	5	2·00	+3·00	2·66	1·26	+1·40	2·67	1·50	+ 1·17	0·80	Narayanganj.		
5	2	1	1	1		2	N 34° E	1·0	1·1			85	·628	3·4†	4	1·81	+2·19	1·85	1·13	+0·72	1·85	1·74	+ 0·11	1·10	Barisal.¶		
		2	2				S 18° E	0·1	0·1			84	·480	?	3	1·50	+1·50	1·93	1·13	+0·80	2·17	1·52	+ 0·65	0·87	Mymensingh.		
1	1		1				S 75° E	1·0	1·2			87	·535	2·4	4	2·04	+1·96	2·45	1·49	+0·96	2·45	1·85	+ 0·60	0·90	Faridpur .	Deltaic Bengal.	
1	1					1	N 14° E	1·5	1·5	2·0	−25	86	·562	3·1‡	5	1·77	+3·23	5·98	1·21	+4·77	5·98	1·76	+ 4·22	3·40	Jessore.		
5	2		1			2	N 27° E	2·0		3·8	−47	82	·590	3·7*	3	1·92	+1·08	0·75	1·38	−0·63	0·75	1·98	− 1·23	0·25	Calcutta.		
8	2		5	4	1	2	N 22° E	9·9		7·9	+25	87	·729	4·7‖	2	1·77	+0·23	0·42	1·10	−0·68	0·42	1·42	− 1·00	0·25	Saugor Island		
3	6	4	2		2	5	N 51° E	3·1				77	·499	3·1	2	1·62	+0·38	1·27	1·23	+0·04	1·29	1·53	− 0·24	0·95	Krishnagar.		
		1	5			1	N	2·0	2·7			71	·540	2·6	1	1·46	−0·46	0·34	1·07	−0·73	0·41	1·59	− 1·18	0·28	Midnapore.		

§ Mean of 21 days. ‖ Mean of 25 days. ¶ Winds for 26 days.

Ta

Abstract of Observations taken at 8 A.M. at 220 Stat

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
11	Central Bengal.	Bankura	298	29·682		29·945	29·776	8th	29·566	18th	·210	66·4	85·2		62·4		73·8		22·8	89·6	12th	56·7	7th
		Raniganj	324	29·674		29·974	29·767	8th	29·573	18th	·194	65·4	85·2		60·3		72·8		24·9	89·2	26th	54·2	8th
		Burdwan	99	29·918	−·010	29·969	30·003	8th	29·823	12th & 18th.	·180	66·9	85·2	+2·0	62·0	+3·9	73·7	+3·0	23·2	89·0	11th	56·3	7th
		Naya Dumka	489	29·510		29·982	29·598	8th	29·412	12th	·186	64·5*	81·8*		57·1*		69·5*		24·7	86·5	27th	51·6	7th & 8th.
		Berhampore	67	29·948	−·012	29·966	30·040	8th	29·834	12th	·206	63·7	82·0	+0·1	58·7	+2·8	70·4	+1·5	23·3	86·1	11th	54·2	3 days
		Rampur Boalia	70	29·909		29·931	29·991	8th	29·796	12th	·195	63·1	81·2		57·3		69·2		23·9	85·5	12th	50·9	7th
		Malda	72	29·921		29·948	30·058	8th	29·798	12th	·260	67·3	79·7		54·8		67·3		24·9	84·1	12th	47·0	7th
		Bogra	61	29·940		29·957	30·020	8th	29·850	12th	·170	61·6	81·5	?	55·6	+2·3	68·6	?	25·9	85·2	3 days	49·0	7th
12	North Bengal	Dinajpur	123	29·883	+·002	29·968	29·975	8th	29·771	12th	·204	60·4	80·3	+1·9	54·7†	+3·5	67·5	+2·7	25·6	85·3†	14th	43·5	7th
		Rangpur	123	29·881		29·966	29·957	8th	29·776	12th	·181	60·3	79·8		53·3		66·6		26·5	83·7	14th	42·6	7th
		Jalpaiguri	284	29·715	−·001	29·973	29·801	24th	29·616	14th	·185	57·4	77·2	?	53·1	+2·3	65·2	?	24·1	80·4	14th	48·6	15th
		Cooch Behar	156	29·853		29·974	29·930	24th	29·756	14th	·174	58·4	77·4		54·4		65·9		23·0	80·8	14th	45·9	7th
17	North Bihar	Purnea	125	29·883	−·004	29·971	29·978	8th	29·789	12th	·189	58·4	78·5	?	53·8	+3·1	66·2	?	24·7	82·2	14th & 25th.	43·3	7th
14	Orissa	Balasore	46	29·964	?	29·958	30·045	8th	29·851	18th	·194	70·6	86·7	+3·2	66·8	+6·6	76·7	+4·9	19·9	91·9	2 days	60·6	20th
		False Point	21	29·975	−·029	29·938	30·043	8th	29·877	18th	·166	75·6	84·5	+1·9	69·9	+5·6	77·2	+3·8	14·6	87·8	28th	62·5	1st
		Cuttack	80	29·911	−·025	29·936	29·981	20th	29·804	18th	·177	73·0	92·7	+2·7	70·2	+5·1	81·5	+3·9	22·5	97·4	2 days	64·2	2nd
		Shortt's Island	25	29·992		29·960	30·069	8th	29·903	18th	·166	77·6	84·3		74·2		79·3		10·1	87·6	11th	68·6	1st
		Puri	20	29·990		29·943	30·052	1st	29·897	18th	·155	77·6	85·4		74·6		80·0		10·8	87·2	23rd	66·1	1st
	V.—Gangetic Plain and Chota Nagpur.		...	...	−·019	...	...	...	...	...	...	...	79·8	+1·2	55·3	+2·8	67·6	+2·0	24·4	...	...	...	...
15	Chota Nagpur	Hazaribagh	2,007	27·964	−·004	29·985	28·038	8th	27·848	18th	·190	61·4	78·8	+1·1	55·8	+1·9	67·3	+1·5	23·0	86·2	12th	47·1	7th
		Ranchi	2,128	27·840	+·002	29·983	27·918	8th	27·714	18th	·204	62·7	80·9	+4·1	56·8	+3·6	68·9	+3·9	24·1	88·1	12th	51·0	7th
		Daltonganj	730r	29·255		29·983	29·368	8th	29·122	18th	·246	58·7	82·9		52·8		67·8		30·1	91·1	26th	46·5	7th & 8th.
		Purulia		29·181		29·977	29·256	8th	29·054	18th	·202	64·8	85·1		59·9		72·5		25·2	89·1	12th	53·3	23rd
		Chaibassa	760	29·222		29·959	29·310	8th	29·099	18th	·211	66·9	89·4	+5·7	61·4	+4·5	75·4	+5·1	28·0	95·6	19th	54·9	20th & 23rd.
16	South Bihar	Gaya	375	29·626	−·021	29·975	29·738	8th	29·481	18th	·257	62·3	81·3	0	57·5	+1·7	69·3	+0·9	23·8	87·2	24th & 25th.	48·9	7th
		Dehri	351	29·649		29·972	29·771	8th	29·520	18th	·251	65·1	80·6		59·1		69·9		21·5	88·3	25th	51·1	7th
		Patna	183	29·817	−·034	29·963	29·935	8th	29·712	18th	·223	61·3	77·7	−0·3	56·1	+3·5	66·9	+1·6	21·6	83·0	24th	47·4	7th
		Arrah	190	29·820		29·973	29·939	8th	29·690	18th	·249	60·2	78·3		55·1		66·7		23·2	83·7	24th	45·5	7th
		Buxar	239	29·763		29·970	29·885	8th	29·649	18th	·236	62·2	79·0		55·8		67·4		23·2	84·6	24th	46·9	7th
17	North Bihar	Bhagalpur	160	29·835		29·955	29·952	8th	29·740	12th	·212	62·9‖	78·0‖		56·6‖		67·3‖		21·4‖	83·4	14th	48·4	7th
		Darbhanga	166	29·821	−·027	29·951	29·925	8th	29·724	12th	·201	59·5	77·1	+0·9	55·7	+2·0	66·4	+1·5	21·4	81·2	27th	47·1	7th
		Muzaffarpur	178	29·819		29·961	29·943	8th	29·715	12th	·228	60·1	77·0		54·2		65·7		22·8	81·2	24th & 27th.	46·8	6th
		Motihari	224	29·780		29·974	29·898	8th	29·678	27th	·220	60·0	77·1		51·5		64·4		25·6	81·0	4 days	41·9	7th
		Chapra	181	29·813		29·958	29·934	8th	29·703	18th	·231	59·1	78·6		55·2		66·9		23·4	83·4	24th	46·6	7th
18	N.-W. P., East	Benares	267	29·728	−·024	29·665	29·849	8th	29·616	18th	·233	60·8	79·7	−0·7	54·6	+3·2	67·2	+1·3	25·1	85·2	3 days	44·9	7th
		Allahabad	309	29·692	−·021	29·973	29·821	8th	29·588	17th & 18th.	·233	60·5	79·6	−0·1	53·9	+3·0	66·8	+1·5	25·7	85·1	24th & 25th.	46·4	7th
23	N.-W. P. (East Submontane).	Gorakhpur	256	29·727	−·017	29·956	29·839	8th	29·631	18th	·208	59·8	77·6	−0·4	54·9	+3·0	66·3	+1·3	22·7	82·4	27th	46·6	6th
19	South Oudh	Lucknow	368	29·616	−·030	29·966	29·739	8th	29·516	17th & 18th,	·223	58·4	79·8	+1·3	53·0	+2·7	66·4	+2·0	26·8	85·3	24th	46·2	7th, 8th.
20	North Oudh	Bahraich	403	29·565	−·019	29·953	29·689	8th	29·466	27th	·223	58·5	78·3*	+1·6*	52·5	+2·1	65·6	+1·9	25·8	83·3	24th	40·1	6th
21	N.-W. Provinces (Central).	Cawnpore	416	29·574	−·026	29·970	29·688	8th	29·466	17th	·222	59·3	79·7	+1·5	52·7	?	66·2	?	27·0	87·3	25th	45·5	6th
		Mainpuri	516	29·471	−·008	29·977	29·579	8th	29·327	17th	·252	57·7	78·5	?	52·2	+2·1	65·4	?	26·3	86·3	25th	41·1	6th

* Mean of 22 days. † Mean of 26 days. ‖ Mean of 2 days. § Mean of 24 days.

—continued.

India, Burma, etc., in February, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st January to 28th February, 1900.	Normal rainfall for period, 1st January to 28th February.	Variation from normal of period, 1st January to 28th February.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
14	2	3	1				6	2	N 34° W	2·9	3·3			69	·451	2·5	3	1·81	+ 1·19	1·29	0·94	+ 0·35	1·45	1·28	+ 0·17	0·49	Bankura	Central Bengal	11
18	2	1	3				1	3	N 11° E	1·6				65	·408	2·0	0	1·62	− 1·62	0·06	1·18	− 1·12	0·65	1·58	− 0·93	0·06	Raniganj.		
15	4	4	1				1	3	N 6° E	1·7	1·7	2·3	−26	74	·495	3·6*	3	1·58	+ 1·42	2·79	0·93	+ 1·86	2·87	1·29	+ 1·58	1·39	Burdwan.		
11	1		2	1	1	2	3	7	N 67° W	0·9	1·0			66*	·403*	2·5	1	1·67	− 0·67	0·31	0·79	− 0·48	1·92	1·39	+ 0·53	0·21	Naya Dumka.		
24			2		1	1			S 27° E	1·0	1·0	2·4	−58	81	·481	2·3‡	2	1·73	+ 0·27	1·40	1·04	+ 0·36	2·35	1·56	+ 0·79	1·05	Berhampore.		
15	2		1		1	3	4	2	N 87° W	2·8	2·8			79	·445	2·9	2	1·46	+ 0·54	0·99	0·84	+ 0·15	1·78	1·25	+ 0·53	0·50	Rampur Boalia.		
	3			3	1	8	9	4	S 79° W.	2·5	2·3			78	·438	0·5	1	1·27	− 0·27	0·38	0·61	− 0·23	1·44	1·13	+ 0·31	0·30	Malda.		
														82	·453	1·6§	3	1·46	+ 1·54	0·91	0·97	− 0·06	1·58	1·44	+ 0·14	0·61	Bogra.		
	3	4	3	1	2	3	9	3	N 67° W	4·2	4·8			79	·424	2·7‡	3	1·19	+ 1·81	1·96	0·51	+ 1·45	2·10	0·96	+ 1·14	1·48	Dinajpur	North Bengal.	12
6	1	3	5		3	1	9		S 72° W	2·8	2·9			86	·456	0·4	4	1·08	+ 2·92	0·73	0·43	+ 0·30	0·73	1·04	− 0·31	0·34	Rangpur.		
	4	6	10	3	1	1	2	1	N 69° E	1·5	2·0			89	·420	0·9‡	0	1·12	− 1·12	0·13	0·38	− 0·25	0·20	0·91	− 0·71	0·08	Jalpaiguri.		
10	1	4	6	6	1				S 86° E	1·6	1·6			88	·432	2·5	1			0·15	0·31	− 0·16	0·15	0·69	− 0·54	0·15	Cooch Behar		
11	1	2	1		1	3	8	1	W	3·3	5·1	2·5	+104	94	·471	2·4	2	1·20	+ 0·80	0·98	0·59	+ 0·39	1·45	1·08	+ 0·37	0·51	Purnea	North Bihar.	17
3	8	1		1	2	4	1	8	N 42° W	3·8				85	·640	4·2†	5	2·23	+ 2·77	2·91	1·31	+ 1·60	3·06	1·70	+ 1·36	0·95	Balasore	Orissa.	14
2	4	1	1		6	3	7	4	S 84° W	8·6	8·3	7·5	+11	88	·784	5·9§	0	1·42	− 1·42	0	0·86	− 0·86	0	1·43	− 1·43	0	False Point.		
19		4	3		1		1		N 68° E	2·2		2·2	0	85	·703	4·1§	0	1·23	− 1·23	0·02	0·63	− 0·61	0·02	0·95	− 0·93	0·02	Cuttack.		
	4	3			2	8	8	2	S 89° W	5·9	7·2			80	·761	4·2	0			0	0·97	− 0·97	0	1·08	− 1·08	0	Shortt's Island		
11						15	2		S 50° W	11·8	11·6			83	·794	3·4	0	1·15	− 1·15	0	0·78	− 0·78	0	1·06	− 1·06	0	Puri.		
																				0·35	0·54	−0·23					**V.—Gangetic Plain and Chota Nagpur.**		
2	3		2		4	2	4	4	N 88° W	7·3		6·5	+12	60	·329	2·9‡	1	1·81	− 0·81	0·55	0·82	− 0·27	3·98	1·38	+ 2·60	0·40	Hazaribagh.	Chota Nagpur.	15
16	1	1	2	1		1	1	5	N 27° W	3·5				63	·360	2·8‡	2	2·12	− 0·12	0·63	1·21	− 0·58	2·40	1·73	+ 0·67	0·47	Ranchi.		
9		2	4	11		2			S 56° E	3·4	4·0			82	·409	0·8	0	1·32	− 1·32	0·04	0·49	− 0·45	3·62	1·21	+ 2·41	0·02	Daltonganj.		
0							4	4	N 67° W	0·9				65	·403	1·1	3			1·25			1·94			0·14	Purulia.		
5	1	1	1						N 45° E	1·0				61	·403	1·4	0	1·65	− 1·65	0	0·97	− 0·97	0·31	1·55	− 1·24	0	Chaibassa.		
6		2	1	2	5	9	3		S 29° W	5·8	5·2	2·6	+100	73	·413	1·9	2	1·35	+ 0·65	1·07	0·67	+ 0·40	3·12	1·25	+ 1·87	0·80	Gaya	South Bihar.	16
			4	2	9	10	3		S 16° W	4·3	4·9			61	·375	2·0	1	1·25	− 0·25	0·53	0·44	+ 0·09	2·24	1·06	+ 1·18	0·46	Dehri.		
1		1	1	4	1	8	7	5	S 67° W	3·7	4·4	2·9	+52	73	·400	1·4	2	1·12	+ 0·88	0·24	0·53	− 0·29	3·74	1·18	+ 2·56	0·12	Patna.		
2		1	3	1	1	8	11	1	S 65° W	2·3	2·4			79	·415	1·0	1	1·04	− 0·04	0·31	0·59	− 0·28	4·11	1·32	+ 2·79	0·19	Arrah.		
1			3		2	4	18		S 71° W	6·3	5·7			68	·385	2·0	1	1·46	− 0·46	0·33	0·50	− 0·17	3·29	1·22	+ 2·07	0·24	Buxar.		
3		1	1	3	3	12	4	1	S 37° W	3·5	3·2			75‖	·428‖	2·3	2	1·46	+ 0·54	0·40	0·62	− 0·22	2·75	1·10	+ 1·65	0·16	Bhagalpur	North Bihar.	1
1	2	1	5	3		5	9	2	S 72° W	4·2		3·3	+27	82	·422	0·9‡	0	1·32	− 1·32	0·07	0·49	− 0·42	1·41	1·14	+ 0·27	0·07	Darbhanga.		
2			1	1		1	2	1	S 63° W	2·3	2·0			82	·420	0·7	0	1·32	− 1·32	0	0·48	− 0·48	1·61	1·32	+ 0·29	0	Muzaffarpur		
		4	6	1	2	9	5	1	S 27° W	4·3				94	·489	0·5	1	1·17	− 0·17	0·17	0·48	− 0·31	3·59	1·19	+ 2·40	0·14	Motihari.		
2		2	3		4	12	4	1	S 42° W	2·5	3·1			81	·412	0·2	1	1·08	− 0·08	0·29	0·46	− 0·17	3·86	1·14	+ 2·72	0·23	Chapra.		
9		3	1			5	9	1	S 85° W	2·4	2·7	4·1	−34	74	·397	2·8	1	0·82	+ 0·18	0·50	0·37	+ 0·13	2·05	1·16	+ 0·89	0·41	Benares	N.-W. P., East.	18
9		1	2	1		6	6	3	S 76° W	5·1	5·8	4·2	+38	71	·378	3·4	0	0·64	− 0·64	0·03	0·28	− 0·25	4·99	1·13	+ 3·86	0·03	Allahabad.		
3	6	4			3	3	7	2	N 57° W	2·0		2·3	−13	72	·373	2·5	1	0·73	+ 0·27	0·20	0·41	− 0·21	4·15	1·25	+ 2·90	0·20	Gorakhpur	N.-W. P. (East Submontane).	23
7	1		4	1			15		N 88° W	2·2	2·3	3·3	−30	68	·335	3·4	0	0·55	− 0·55	0·09	0·25	− 0·16	2·60	1·35	+ 1·25	0·05	Lucknow	South Oudh.	19
7	3		3	1	1		12	1	N 77° W	2·9	2·7			73	·361	2·9	1			0·95	0·63	+ 0·32	2·59	1·49	+ 1·01	0·92	Bahraich	North Oudh.	20
4	2		2	1		2	5	2	N 76° W	2·0				62	·320	1·5	0	0·60	− 0·60	0·06	0·44	− 0·38	1·70	1·16	+ 0·54	0·06	Cawnpore	N.-W. Provinces (Central).	21
6	3	1	1	1	1		13	2	N 74° W	2·2	2·2			63	·308	4·6	0			0	0·16	−0·16	1·18	0·77	+ 0·41	0	Mainpuri.		

‖ Mean of 15 days.

Tabl

Abstract of Observations taken at 8 A.M. at 220 Station

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	VI.—Upper Sub-Himalayas		...	..	−·008	...	.	...	...	...	...	...	73·3	+1·2	49·4	+1·9	61·4	+1·6	24·0	...	...	...	...	40
24	N.-W. Provinces, (West Submontane).	Bareilly	569	29·397	−·019	29·965	29·508	8th	29·282	17th	·226	56·4	76·5	+1·6	52·4	+3·6	64·5	+2·6	24·1	83·4	25th	41·2	6th	42·
		Dehra Dun	2,238	27·702	−·023	30·000	27·812	8th	27·605	17th	·207	51·7	69·0	+0·2	47·3	+0·6	55·2	+0·4	21·7	74·0	10th & 16th.	41·0	6th	33·
		Roorkee	887	29·074	−·014	29·989	29·181	1st & 8th.	28·944	17th	·237	52·5	73·3	+0·1	48·4	+1·2	60·9	+0·7	24·9	80·3	24th	40·0	5th	40·
22	N.-W. P., West	Meerut	738	29·227	−·024	29·980	29·333	8th	29·092	17th	·241	54·0	76·7	?	50·4	+2·9	63·6	?	26·3	84·3	24th	39·2	6th	45·
26	South-East Punjab.	Delhi	718	29·260	−·022	29·986	29·366	8th	29·108	17th	·258	57·1	75·9	+0·8	53·8	+2·3	64·9	+1·6	22·1	82·7	24th	43·2	6th	39·
28	Central Punjab.	Lahore	702	29·296	−·006	30·023	29·427	8th	29·124	24th	·303	50·8	72·6	+2·1	46·9	+3·0	59·8	+2·6	25·7	80·2	23rd	37·0	5th	43·
27	South Punjab	Sirsa	662	29·309	?	29·982	29·396	3rd	29·113	17th	·283	54·0	74·8	?	48·9	+2·9	61·9	?	25·9	82·8	23rd	35·0	5th	47·
		Patiala	818	29·156		29·995	29·266	8th	29·017	17th	·249	54·2	71·8		49·5		60·7		22·3	79·8	24th	40·0	5th	39·
29	Punjab (Submontane).	Ludhiana	812	29·167	−·006	30·003	29·272	3rd	29·002	24th	·270	52·5	72·0	?	49·4	+3·0	60·7	?	22·6	79·1	25th	41·1	5th	38·
		Sialkot	830	29·166	+·015	30·029	29·300	8th	29·034	28th	·260	51·4	70·6	+1·3	48·0	+2·7	59·3	+2·0	22·6	79·5	23rd	38·1	5th	41·
		Umballa	892	29·068	+·001	29·985	29·188	8th	28·940	17th	·248	52·0	73·1	+2·3	48·0	+0·2	60·6	+1·3	25·1	80·0	24th	41·0	6th	39·
31	North Punjab	Rawalpindi	1,676	28·312	+·023	30·081	28·444	8th	28·186	28th	·258	47·0	64·9	+0·5						73·0	23rd & 28th.			
	VII.—Indus Valley and N.-W. Rajputana.		...	...	−·006	...	...	...	...	...	...	...	77·1	+2·1	50·3	+1·3	63·7	+1·7	26·7	...	...	...	...	45
31	North Punjab	Peshawar	1,110	28·930	−·007	30·106	29·064	8th	28·789	28th	·275	48·3	64·9	−0·8	44·3	+2·8	54·6	+1·0	20·6	74·1	28th	35·9	4th	38
32	West Punjab	Khushab	612	29·411	+·014	30·043	29·545	8th	29·271	28th	·274	50·7	71·6	+3·5	46·6	+0·8	59·1	+2·2	25·0	80·2	28th	37·9	4th & 5th.	42
		Montgomery	558	29·452	−·015	30·019	29·586	8th	29·291	28th	·295	53·1	72·9	?	46·6	?	59·8	?	26·3	83·0	23rd	34·0	5th	49
		D. I. Khan	594	29·465	−·008	30·050	29·606	8th	29·305	28th	·301	51·4	72·3	+0·1	45·2	+0·4	58·8	+0·3	27·1	81·8	22nd	36·5	5th	45
		Mooltan	420	29·617	−·016	30·039	29·762	8th	29·421	28th	·341	53·1	75·2	+2·3	49·5	+3·4	62·4	+2·9	25·7	85·3	23rd	38·5	5th	46
47	Sind	Jacobabad	186	29·842	−·023?	30·003	30·010	5th	29·647	16th	·363	56·3	81·2	+4·1	50·0	+2·2	65·6	+3·2	31·2	90·9	28th	39·0	5th	51
		Hyderabad	96	29·956	−·011	30·011	30·100	4th	29·819	16th	·281	60·7	82·7	+2·7	54·3	+0·2	68·6	+1·5	28·4	89·6	28th	47·0	5th	42
		Kurrachee	30	30·038	+·002	30·020	30·177	4th	29·928	16th	·249	63·5	83·0	+2·5	57·7	−0·6	70·4	+1·0	25·3	90·4	22nd	48·2	3rd	42
51	West Rajputana	Bikaner	771	29·229	?	30·015	29·354	5th	29·052	17th	·302	57·2	77·5	+2·3	52·5	?	65·0	?	25·0	85·2	23rd	42·1	5th	43
		Pachpadra	380	29·644		30·007	29·770	5th	29·519	17th	·251	58·1	84·3		50·5		67·4		33·8	89·8	23rd	37·5	6th	5
		Jodhpur	782	29·210		30·016	29·325	5th	29·064	17th	·261	60·8	82·0		56·4		69·2		25·6	87·6	17th	41·1	6th	4
	VIII.—East Rajputana, Central India and Gujarat.		...	...	−·006	...	...	...	...	...	...	...	84·2	+2·2	56·0	+2·5	70·1	+2·3	28·2	...	...	...	...	4
50	East Rajputana	Jaipur	1,431	28·564	−·013	30·025	28·639	7th	28·384	17th	·255	59·0	80·2	+2·3	54·4	+4·4	67·3	+3·4	25·8	86·2	24th	42·0	6th	4
		Kotah	819	29·176			29·262	5th	29·001	17th	·261	63·2	84·4		58·4		71·4		26·0	94·5	24th	51·0	5th	4
		Sambhar	1,254	28·740	−·001	30·031	28·833	5th	28·571	17th	·262	54·8	79·5	+3·1	50·6	?	65·1	?	28·9	84·4	17th	36·0	6th	4
		Ajmere	1,611	28·384	−·015	30·044	28·481	5th	28·232	17th	·249	56·7	79·8	+2·5	52·7	+4·3	66·3	+3·4	27·1	86·9	24th	39·9	6th	4
		Udaipur	1,925	28·075		30·030	28·148	5th	27·949	17th	·199	62·3	81·2		54·9		68·1		26·3	87·9	9th	47·2	6th	4
		Deesa	456	29·552	−·010	29·985	29·632	4th	29·446	16th	·186	65·0	87·4	+1·7	58·1	+3·4	72·8	+2·6	29·3	92·6	28th	51·1	12th	4
46	Kathiawar and Cutch.	Bhuj	395	29·652	+·016	30·019	29·755	4th	29·560	17th	·195	65·8	85·6	+1·8	58·3	+0·4	72·0	+1·1	27·3	92·3	28th	52·0	3rd	4
		Jamnagar	61	29·997		30·004	30·085	4th	29·899	16th	·186	64·6	84·0		56·4		70·2		27·6	91·0	28th	50·3	2nd & 3rd.	4
		Rajkot	429	29·603	+·002	30·005	29·673	4th	29·516	16th	·157	63·0	87·8	?	54·4	+0·3	71·1	?	33·4	95·3	28th	41·0	20th	5
		Veraval		30·017	+·013	29·977	30·081	4th	29·937	16th	·144	65·8	83·0	+2·0	60·1	−0·6	71·6	+0·7	22·9	93·6	6th	55·3	1st	3
		Bhavnagar Para.	35	29·995	+·003	29·977	30·057	4th	29·918	16th	·139	65·3	89·6	+4·3	57·8	?	73·7	?	31·8	95·6	22nd	51·7	14th	4
49	Central India	Nowgong	757	29·243	−·023	30·002	29·339	8th	29·095	17th	·244	58·2	80·1	−0·2	52·2	?	66·2	?	27·9	89·5	25th	42·5	7th	4
		Indore	1,523	28·173	+·005	30·013	28·231	19th	28·070	17th	·161	62·6	86·4	+3·9	52·2	?	69·3	?	34·2	91·3	24th & 28th.	48·1	4th & 6th	4
		Neemuch	1,630	28·383	−·003	30·038	28·449	26th	28·244	17th	·205	61·9	82·9	+2·4	53·8	+2·3	68·3	+2·4	29·1	89·5	24th	46·6	6th	4

I—continued.

in India, Burma, etc., in February 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer corrected.	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st January to 28th February 1900.	Normal rainfall for period from 1st January to 28th February.	Variation from normal of period, 1st January to 28th February.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·58	1·17	−0·60	...	...	...	...	VI.—Upper Sub-Himalayas.		
		2	1			1	4	4	N 55° W	2·8	2·7	4·0	−33	68	·308	3·1	1	1·18	−0·18	0·11	0·61	−0·50	3·47	1·71	+ 1·76	0·11	Bareilly	N.-W. Provinces (West Submontane).	24
	1	4	1	2		2	10	1	N 76° W	2·0		2·0	0	75	·286	5·3	3	3·00	0	1·24	1·93	−0·69	5·82	4·47	+ 1·35	0·62	Dehra Dun.		
12	2			1				13	N 39° W	3·5		2·8	+25	75	·298	3·7	4	2·09	+1·91	1·42	1·22	+0·20	3·03	2·98	+ 0·05	0·55	Roorkee.		
11	1	3				1	9	3	N 64° W	3·1	3·5	2·6	+35	68	·285	4·0	0	1·27	−1·27	0·05	0·79	−0·74	0·44	2·06	− 1·62	0·05	Meerut	N.-W. P., West.	22
5	4	1	3	1			2	12	N 26° W	4·0	3·7	3·6	+ 3	54	·256	3·8	0	1·00	−1·00	0	0·61	−0·61	0·84	1·85	− 1·01	0	Delhi	South-East Punjab.	26
17	2	1	1	2			4	1	N 33° W	2·0		2·4	−17	76	·286	3·7	2	2·00	0	0·32	1·10	−0·78	0·77	2·16	− 1·39	0·16	Lahore	Central Punjab.	28
	2	3		7	1	9	1	5	S 40° W	3·5	4·1	3·4	+21	58	·242	2·8	0	0·55	−0·55	0·09	0·27	−0·18	0·09	1·17	− 1·08	0·05	Sirsa	South Punjab.	27
10	5		1	2	1		2	7	N 32° W	5·0				73	·307	5·1	2			0·70			2·78			0·40	Patiala.		
15	2				2		9		W	2·3	2·0	1·6	+25	70	·273	4·6	1	1·82	−0·82	0·31	1·23	−0·92	1·64	3·20	− 1·56	0·15	Ludhiana	Punjab (Submontane).	29
15	3	1	2	2	1		2	2	N 15° E	1·5		1·7	−12	72	·273	3·0	3	2·45	+0·55	0·78	1·70	−0·92	3·15	4·19	− 1·04	0·30	Sialkot.		
9				2			1	16	S 48° W	3·0				78	·299	3·3	2			0·62	1·05	−0·43	2·79	2·20	+ 0·59	0·30	Umballa.		
22	3						1	2	N 29° W	1·5	1·4	2·4	−42	78	·253	4·6	4	3·18	+0·82	1·34	2·41	−1·07	4·83	5·25	− 0·42	0·44	Rawalpindi.	North Punjab.	31
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·24	0·42	−0·18	...	...	...	...	VII.—Indus Valley and N.-W. Rajputana.		
18					4	4	2		S 36° W	1·6	1·7	3·3	−48	79	·273	5·1	5	2·00	+3·00	1·37	0·93	+ 0·39	2·94	2·75	+ 0·19	0·44	Peshawar	North Punjab.	31
14	2	3	1		1	4	2	1	N 52° W	3·1	3·6			59	·222	2·9	2	1·70	+0·30	0·44	0·76	− 0·32	1·15	1·28	− 0·13	0·21	Khushab	West Punjab.	32
7	1	2	5	4		1	2	6	N 36° E	5·1	4·6			58	·235	3·6	1	1·10	−0·10	0·25	0·61	− 0·36	0·26	1·19	− 0·93	0·16	Montgomery.		
15	1	7					1	4	N 6° E	2·0	2·1	2·0	+ 5	69	·270	4·1	1	0·91	+0·09	0·20	0·52	− 0·32	0·78	1·05	− 0·27	0·12	D. I. Khan.		
16	1	8		1		1		1	N 40° E	2·0	2·5	2·4	+ 4	59	·244	3·8	2	1·00	+1·00	0·37	0·38	− 0·01	0·58	0·86	− 0·28	0·20	Mooltan.		
9	2	2	9		1		2	3	N 51° E	3·1	3·2	3·0	+ 7	46	·219	3·1	0	1·00	−1·00	0	0·40	− 0·40	0·08	0·65	− 0·57	0	Jacobabad	Sind.	47
20	2	1				2	1	2	N 49° W	3·7	3·8	7·0	−46	44	·237	3·4	0	0·30	−0·30	0·04	0·23	− 0·19	0·04	0·54	− 0·50	0·03	Hyderabad.		
7		9	4			1	4	3	N 27° E	5·8	7·3	10·5	−30	62	·379	2·1	0	0·36	−0·36	0	0·31	− 0·31	0	1·03	− 1·03	0	Kurrachee.		
2	6	6	2	1	1	2	4	4	N 13° E	4·7		3·7	+27	50	·241	3·2	0			0	0·22	− 0·22	0·10	0·52	− 0·42	0	Bikaner	West Rajputana	51
1	2	7	8	2	2	2	3	1	N 72° E	4·9	5·7	3·3	+73	42	·208	2·6	0			0	0·09	−0·09	0	0·46	− 0·46	0	Pachpadra.		
8	6	10	2				1	1	N 29° E	4·8	4·3			35	·189	3·7	0			0	0·16	− 0·16	0·03	0·43	− 0·40	0	Jodhpur.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	0·17	−0·17	...	...	...	...	VIII.—East Rajputana, Cen. India and Gujarat.		
6	6	12	1	1				2	N 30° E	3·8		4·4	−14	47	·239	3·4	0	0·60	−0·60	0·01	0·19	− 0·18	0·05	0·88	− 0·83	0·01	Jaipur	East Rajputana.	50
15		2	2			2	4	3	N 62° W	2·7	3·2			36	·209	1·2	0			0	0·25	− 0·25	0	0·40	− 0·40	0	Kotah.		
18	4	3	1	1				1	N 34° E	4·6		5·3	−13	78	·212	3·6	0	0·55	−0·55	0·01	0·21	− 0·20	0·03	0·68	− 0·65	0·01	Sambhar.		
22	1	2		1		1		1	N 35° E	3·2		2·5	+28	56	·258	2·9	0	0·64	−0·64	0	0·30	− 0·30	0·12	0·82	− 0·70	0	Ajmer.		
16	4	2					2	4	N 23° W	3·5	3·5			37	·211	1·8	0			0			0			0	Udaipur.		
	2	9	11			1	1	4	N 50° E	9·5		3·0	+ 6	32	·191	1·7	0	0·27	−0·27	0	0·10	− 0·10	0	0·27	− 0·27	0	Deesa.		
	5	3	2	1			14	3	N 53° W	8·5		6·7	+27	70	·446	2·9	0			0	0·11	− 0·11	0	0·22	− 0·22	0	Bhuj	Kathiawar and Cutch.	43
	3	4	4		2	8	6	1	S 78° W	0·5	0·5			61	·383	1·4	0			0			0			0	Jamnagar.		
14	5		2				7		N 45° W	6·4	6·3	6·2	+ 1	52	·313	1·1	0	0·10	−0·10	0	0·08	− 0·08	0	0·12	− 0·12	0	Rajkot.		
	17	6	1					4	N 6° E	6·6	7·8			54	·314	1·8	0			0	0	0	0·01	0	+ 0·01	0	Veraval.		
	1					4	7	16	N 68° W	6·9	7·1			36	·230	1·3	0			0			0			0	Bhavnagar Para.		
2	5	1	5		1	6	5	3	N 65° W	2·6	2·6	1·7	+53	64	·314	3·3	0	0·73	−0·73	0	0·27	− 0·27	1·17	0·92	+ 0·25	0	Nowgong	Central India.	49
14	5	1			1	2	1	4	N 36° W	2·6		3·0	−13	42	·241	0·7	0	0·55	−0·55	0	0·18	− 0·18	0	0·36	− 0·36	0	Indore.		
4	3	16		2		1	1	1	N 39° E	6·9	6·2	9·1	−32	44	·252	1·8	0	0·55	−0·55	0	0·19	− 0·19	0	0·49	− 0·49	0	Neemuch.		

Tabl

Abstract of Observations taken at 8 A.M. at 220 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 actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 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.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
45	Gujarat	Surat	39	29·987	?	29·968	30·044	4th	29·926	16th	·118	67·2	92·0	+2·5	59·8	+1·5	75·9	+2·0	32·2	99·2	28th	55·5	3 days	43·7
		Ahmedabad *	164	29·885	?	30·003	29·953	19th	29·799	16th	·154	68·3	90·2	+3·2	61·1	+1·3	75·7	+2·3	29·1	95·2	28th	54·2	1st	41·0
22	N.-W. P., West	Agra	555	29·437	−·027	29·986	29·538	8th	29·278	17th	·260	58·4	79·5	+1·3	54·8	+3·1	67·2	+2·2	24·7	87·0	25th	45·9	6th	41·1
21	N.-W.P., Central	Jhansi	858	29·149	−·019	30·004	29·243	8th	28·970	17th	·273	63·1	82·4	+1·9	58·8	+4·6	70·6	+3·3	23·6	91·2	25th	51·2	6th	40·0
	IX.—Deccan				−·013								92·3	+3·7	62·6	+3·2	77·4	+3·5	29·7					39·
38	Bombay (Deccan)	Belgaum	2,539	27·448	−·003	29·942	27·504	8th	27·399	16th	·105	70·8	90·1	+1·5	61·3	+1·8	75·7	+1·7	28·8	93·3	11th & 28th.	55·9	18th	37·4
		Sholapur	1,590	28·392	−·019	29·954	28·447	4th	28·343	16th	·104	73·4	97·1	+3·3	66·0	+4·3	81·5	+3·8	31·1	99·7	28th	59·1	13th	40·6
		Poona	1,840	28·163	−·001	30·006	28·211	7th	28·126	21st	·085	64·1	94·4	+3·6	56·9	−0·6	75·7	+1·5	37·5	97·5	28th	49·0	13th	48·5
		Bijapur	1,946	28·058	?	29·968	28·110	8th	28·014	27th	·096	73·7	94·9	+4·9	66·5	+2·4	80·7	+3·7	28·4	97·7	28th	60·7	2nd	37·0
40	Khandesh	Malegaon	1,430	28·569	−·003	29·998	28·623	4th & 8th.	28·491	16th	·132	66·1	93·9	+4·1	55·5	+0·6	74·8	+2·4	38·4	97·9	28th	47·0	12th & 13th,	50·9
		Ahmednagar	2,152	27·864	?	29·999	27·918	8th	27·801	16th	·117	68·8	91·9	+4·0	56·3	+1·4	74·1	+2·7	35·6	94·9	11th	47·4	14th	47·5
41	Berar	Akola	930	29·061	−·005	29·973	29·107	8th	28·975	17th	·132	67·8	94·8	+4·5	59·5	+2·9	77·2	+3·7	35·3	98·8	9th	53·6	22nd	45·2
		Amraoti	1,215	28·775	+·003	29·975	28·835	7th	28·685	17th	·150	70·2	94·0	+4·3	64·2	+3·3	79·1	+3·8	29·8	97·2	9th & 11th.	58·3	12th	38·9
42	Central Provinces (West).	Khandwa	1,044	28·962	+·004	30·002	29·016	4th	28·864	17th	·152	65·6	91·3	+2·8	57·7	+2·7	74·5	+2·8	33·6	96·2	24th	51·1	22nd	45·1
		Hoshangabad	1,006	29·002	+·003	30·011	29·079	8th	28·844	17th	·235	63·7	88·3	+3·1	58·1	+3·0	73·2	+3·1	30·2	95·8	24th	52·3	5th	43·5
		Nagpur	1,025	28·960	−·015	29·971	29·022	8th	28·851	17th	·171	68·8	93·9	+4·8	62·2	+2·9	78·1	+3·9	31·7	99·1	11th	56·2	7th	42·9
43	Central Provinces (Central).	Chanda	634	29·367	?	29·963	29·427	8th	29·272	17th	·155	72·1	97·2	+5·6	65·0	+6·2	81·1	+5·9	32·2	100·7	11th	59·2	19th	41·5
		Seoni	2,033	27·951	−·009	29·980	28·024	8th	27·839	17th	·185	66·0	88·9	+5·0	57·9	+2·8	73·4	+3·9	31·0	92·3	10th	52·5	15th	39·8
		Jubbulpore	1,327	28·643	−·030	29·985	28·725	8th	28·521	17th	·204	60·8	85·1	+3·2	54·4	+2·7	69·8	+3·0	30·7	91·4	24th	48·4	7th & 20th.	43·0
		Saugor	1,807	28·179	−·007	29·998	28·252	8th	28·031	17th	·221	64·0	83·4	+2·8	58·2	+4·0	70·8	+3·4	25·2	89·3	11th	51·1	6th & 7th.	38·2
44	Central India	Sutna	1,040	28·945	−·018	29·995	29·024	8th	28·857	18th	·167	60·8	80·6	+1·4	55·1	+4·1	67·9	+2·8	25·5	88·9	25th	47·3	7th	41·6
46	Central Provinces (East).	Raipur	970	29·010	−·018	29·959	29·.95	8th	28·911	17th	·184	69·7	91·3	+4·5	63·7	+3·7	77·5	+4·1	27·6	95·9	11th	59·2	7th	36·7
		Sambalpur	486	29·501	−·037	29·951	29·577	8th	29·393	18th	·184	70·5	90·8	+2·9	65·8	+6·3	78·3	+4·6	25·0	95·1	12th.	60·2	6th & 28th.	34·9
9	Hyderabad (North).	Indur										75·9	95·6		67·0		81·3		28·6	98·7	11th	61·1	19th	37·6
		Bidar	2,165	27·807		29·915	27·895	7th	27·686	23rd	·209	76·9	93·1		68·1		80·6		25·0	96·5	11th	64·2	18th	32·3
53	Hyderabad (South).	Gulbarga	1,502	28·495		29·963	29·573	8th	29·428	21st	·145	75·6	96·7		68·1		82·4		28·6	99·5	11th	61·2	17th	38·3
		Raichur	1,309	?28·659	?	29·928?	28·723	8th	28·588	13th	·135	77·1	95·6	+2·9	72·2	+4·0	83·9	+3·5	23·4	99·1	12th	67·6	18th	31·5
		Hyderabad (Deccan).	1,690	28·292	−0·37	29·954	28·357	8th	28·220	17th	·137	72·9	94·3	+3·3	67·5	+4·8	80·9	+4·1	26·8	97·4	11th & 12th,	64·2	3rd & 17th,	33·2
		Secunderabad	1,787	28·194	−·027	29·956	28·258	8th	28·125	17th	·133	71·7	95·3	+4·3	67·2	+4·5	81·3	+4·4	28·1	98·7	3 days	64·1	5th	34·6
		Hanamconda		29·109			29·178	8th	29·031	16th	·147	73·8	94·9		69·5		82·2		25·4	98·4	12th	66·3	4th	32·1
	X.—West Coast				+·002								85·8	−0·1	71·4	+1·2	78·6	+0·5	14·5					21·
37	Konkan	Bombay	37	29·988	+·003	29·966	30·036	8th	29·926	14th	·110	71·2	81·4	−1·1	68·1	−0·3	74·8	−0·7	13·3	83·5	4 days	64·5	14th	19·0
		Ratnagiri	110	29·882	+·001	29·933	29·944	8th	29·827	14th	·117	72·1	84·5	−1·8	67·0	+0·1	75·8	−0·9	17·5	96·9	6th	62·9	13th & 14th.	34·0
		Mormugao	60	29·930	−·006	29·926	29·990	8th	29·880	13th	·110	73·4	84·0	−1·0	71·4	+0·1	77·7	−0·5	12·6	88·5	7th	67·8	14th & 16th.	20·7
		Goa	199	29·797	+·004	29·936	29·859	8th	29·756	13th	·103	73·0	82·2	−4·6?	69·9	−0·2?	76·1	−2·4?	12·3	85·0	6th	67·0	19th	18·0
		Karwar	44	29·966	+·009	29·943	30·020	8th	29·918	13th	·102	69·8	85·2	−0·9	67·7	+0·6	76·5	−0·2	17·6	89·3	27th	64·0	13th	25·3
33	Malabar	Cochin	11	29·994	+·007	29·932	30·053	7th	29·943	2nd & 16th.	·110	79·1	92·9	+2·5	76·5	+3·4	84·2	+3·0	15·5	93·5	3rd & 4th.	74·7	7th & 8th.	18·8
		Calicut	27	29·974	−·004	29·930	30·027	7th	29·924	16th	·103	78·0	88·9	+0·1	73·7	+1·2	81·3	+0·7	15·2	90·3	2nd & 11th.	71·5	18th	18·8
		Mangalore	65	29·940	−·002	29·937	29·988	8th	29·889	13th	·099	77·1	87·1	−0·7	73·2	+1·8	80·2	+0·6	13·9	93·3	3rd	71·4	16th & 18th.	21·9
		Trivandrum	198	29·781	+·015?	29·912	29·838	7th	29·719	16th	·119	77·5	87·0	+2·0	74·7	+2·6	80·9	+2·3	12·3	88·0	4 days	72·5	4 days	15·5

I—*continued.*

in India, Burma, etc., in February, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st January to 28th February 1900.	Normal rainfall for period, 1st January to 28th February.	Variation from normal of period, 1st January to 28th February.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
3	5	12	1	5			1	1	N 46° E	3·9	6·4	5·4	+ 19	55	·376	0·5	0	0	0	0	0·01	− 0·01	0	0·06	− 0·06	0	Surat	Gujarat.	45
	8	11	1	2				5	N 20° E	2·9				38	·258	1·3	0			0	0·08	− 0·08	0	0·11	− 0·11	0	Ahmedabad*		
5		4		3		6		10	N 61° W	3·6	3·3	4·0	− 18	59	·288	2·3	0	0·36	−0·36	0	0·21	− 0·21	0·56	0·74	− 0·18	0	Agra	N.-W. P., West	22
16			1	2	1	1	5	2	S 69° W	1·9		2·7	− 30	49	·279	0·9	0	1·09	−1·09	0	0·33	− 0·33	1·00	0·92	+ 0·08	0	Jhansi	N.-W.P. Central	21
																				0·07	0·19	−0·13	...				IX.—Deccan.		
1	5	7	4	3	2		2	4	N 36° E	9·0		10·0	−10	44	·328	1·9	0	0·09	− 0·09	0	0·02	− 0·02	0	0·08	− 0·08	0	Belgaum	Bombay (Deccan).	38
2	3	6	3	3	1			10	N 14° E	7·5	5·4	6·5	− 17	25	·208	0·6	0	0·09	− 0·09	0	0·03	− 0·03	0	0·14	− 0·14	0	Sholapur.		
7	1	1				8	5	6	N 89° W	8·5	9·6	6·3	+ 52	44	·263	1·2	0	0	0	0	0·04	− 0·04	0	0·10	− 0·10	0	Poona.		
3						2	13	10	N 75° W	3·8	3·7			46	·369	0·9	0	0·10	− 0·10	0	0·02	− 0·02	0	0·06	− 0·06	0	Bijapur.		
	1					1	21	5	N 81° W	4·9*	5·6	5·0	+ 12	29	·190	0·2	0	0·18	− 0·18	0	0·05	− 0·05	0	0·21	− 0·21	0	Malegaon	Khandesh.	40
3	13	1						11	N 18° W	6·4	7·8			47	·332	0·7	0			0	0·14	− 0·14	0	0·44	− 0·44	0	Ahmednagar.		
6		1	4	5	4	3	3	2	S 13° E	5·5	5·2	3·8	+ 37	38	·265	2·0	0	0·18	− 0·18	0	0·13	− 0·13	0·03	0·56	− 0·53	0	Akola	Berar.	41
	6	3	8	2	2	3	2	2	N 56° E	6·7*	6·0	3·7	+ 62	37	·276	1·5	0	0·27	− 0·27	0·01	0·19	− 0·18	0·05	0·58	− 0·53	0·01	Amraoti.		
13	1	2	4		1	1	2	4	N 1° W	4·9		3·6	+ 36	29	·181	1·4	0	0·18	− 0·18	0	0·06	− 0·06	0·26	0·37	− 0·11	0	Khandwa	Central Provinces (West).	42
4		19		1		4			N 49° E	0·8		2·9	− 72	58	·342	0	0	0·36	−0·36	0	0·23	− 0·23	0·36	0·48	− 0·12	0	Hoshangabad.		
22	1	3	1					1	N 33° E	5·6		5·1	+ 10	39	·272	2·4	1	0·91	+ 0·09	0·48	0·27	+ 0·21	0·48	0·82	− 0·34	0·45	Nagpur.		
13	1	2	2	3	2		2	3	N 72° E.	2·2		2·7	− 19	46	·367	0·7	0			0	0·23	− 0·23	0·11	0·60	− 0·49	0	Chanda	Central Provinces (Central).	43
	7	11	4	1		1	1	3	N 29° E	2·5		2·9	− 11	43	·276	0·9	1	1·55	− 0·55	0·36	0·75	− 0·39	0·90	1·38	− 0·48	0·36	Seoni.		
7	6	2	1	4	5	2		1	S 72° E	2·4		2·5	− 4	61	·328	1·5	0	0·91	−0·91	0	0·47	− 0·47	2·31	1·23	+ 1·08	0	Jubbulpore.		
	2	3	9	6	2	3	2	1	S 71° E	1·8	2·0	2·8	− 29	48	·283	1·2	0	0·82	− 0·82	0	0·30	− 0·30	0·52	1·00	− 0·48	0	Saugor.		
6	8		4		1		6	3	N 24° W	4·3	4·6	4·7	− 2	57	·300	1·2	0	1·18	− 1·18	0·03	0·59	− 0·56	2·71	1·64	+ 1·07	0	Sutna	Central India	49
9	2	6	2	2		1	4	2	N 16° E	4·7*	4·3	3·7	+ 1	43	·310	1·6	3	0·73	+ 2·27	0·61	0·33	+ 0·28	1·17	0·53	+ 0·64	0·35	Raipur	Central Provinces (East).	44
	17	4	3					4	N 7° E	2·4*	2·4	1·7	+ 41	47	·428	3·1	1			0·15	0·51	− 0·36	0·53	0·81	− 0·28	0·10	Sambalpur.		
20	2			2		1		3	N 45° W	2·8	2·7			48	·432	1·4	0			0	0·01	− 0·01	0	0·06	− 0·06	0	Indur.	Hyderabad (North).	20
	5	2	2	1	2	13	2	1	S 58° W	5·5	6·7			56	·517	0·1	0			0	0·01	− 0·01	0	0·01	− 0·01	0	Bidar.		
11	1	7	4	2	3				N 79° E	8·0	7·6			40	·363	0·7	0			0	0·12	− 0·12	0	0·20	− 0·20	0	Gulbarga	Hyderabad (South).	53
7	2			7	1	6	2	3	S 30° W	6·9	6·8			51	·484	0·6	0			0	0·08	− 0·08	0	0·12	− 0·12	0	Raichur.		
23			2	2			1		S 59° E	3·4	3·2			57	·461	1·1	0			0	0·04	− 0·04	0	0·13	− 0·13	0	Hyderabad (Deccan).		
3			8	11		2	1	3	S 58° E	4·4		3·8	+ 16	57	·441	1·3	0			0·01	0·04	− 0·04	0·01	0·13	− 0·12	0·01	Secunderabad.		
5			2	13	7		1		S 32° E	10·3	8·8			76	·635	1·8	0			0			0			0	Hanamconda.		
																				0·01	0·15	−0·14					X.—West Coast.		
	15	8	4	1					N 28° E	9·4		10·7	− 12	73	·568	1·5	0	0	0	0	0·01	− 0·01	0	0·14	− 0·14	0	Bombay	Konkan.	37
6	10	2	2	7	1				N 56° E	5·4	5·3	9·8	− 46	70	·550	0·5	0	0	0	0	0	0	0	0·22	− 0·22	0	Ratnagiri.		
7	10	1	3	5	1	1			N 49° E	8·8†				85	·705	1·4	0			0	0	0	0	0	0	0	Mormugao.		
	1	10	15	1		1			N 73° E	6·4				83	·677	1·5	0			0	0	0	1·07	0·25	+ 0·82	0	Goa.		
6	3	10	9						N 58° E	4·7				85	·613	0·8	0	0	0	0	0	0	0	0·12	− 0·12	0	Karwar.		
1	14	1							N 21° E	6·2				77	·777	1·9	0	1·00	− 1·00	0·03	0·62	− 0·59	1·43	1·21	+0·22	0·03	Cochin	Malabar.	33
10	2	4	12						N 71° E	6·4	8·1			81	·789	0·6	0	0·13	− 0·13	0	0·22	− 0·22	0	0·30	− 0·30	0	Calicut.		
19		1	4	4					N 73° E	2·0		3·5	−43	80	·750	7·8	0	0	0	0	0·01	− 0·01	0	0·10	− 0·10	0	Mangalore.		
4	11	4	3	1			3	12	N 8° E	5·1				77	·732	2·3	0	0		0·04	0·51	− 0·47	0·34	1·15	− 0·81	0·04	Trivandrum.		

* Mean of 27 days † Mean of 25 days.

Tabl

Abstract of Observations taken at 8 A.M. at 220 Station

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	XI.—South India		...	...	−·007	...	...	...	...	...	...	...	91·5	+2·7	69·1	+2·4	80·4	+2·6	22·4	...	...	...	...	30·7
57	Madras (South)	Pamban	37	29·978		29·942	30·020	9th	29·930	16th	·090	80·9	85·7		73·9		79·8		11·8	86·8	4 days	73·2	8 days	13·6
		Tinnevelly	168	29·853	+·018	29·952	29·913	7th	29·792	16th	·121	78·9	94·9	+2·7	74·5	+1·9	84·7	+2·3	20·4	98·3	20th & 21st,	70·9	13th & 14th,	27·4
		Madura	447	29·565	−·005	29·953	29·627	8th	29·509	16th	·118	78·6	94·5	+2·4	71·4	+2·2	83·0	+2·3	23·1	98·5	20th	66·6	12th	31.9
		Periya Kulan		29·080			29·148	13th	29·019	16th	·129	75·8	94·1		65·7		79·9		28·4	98·1	21st	57·6	12th & 13th,	40·5
34	Madras (South Central).	Salem	940	29·095	−·016	29·988	29·154	7th	29·041	16th	·113	76·5	96·6	+3·2	68·8	+4·0	82·7	+3·6	27·8	99·4	20th	64·9	12th	34·5
		Coimbatore	1,348	28·663	−·005	29·973	28·723	8th	28·612	18th	·111	74·4	93·5	+1·5	68·1	+3·1	80·8	+2·3	25·4	97·4	28th	62·3	12th	35·1
35	Coorg	Mercara	3,781	26·290	+·001		26·334	8th	26·230	18th	·104	67·7	83·3	+2·1	60·6	+3·3	72·0	+2·7	22·7	87·0	11th & 12th,	53·7	8th	33·3
36	Mysore	Chitaldroog	2,405	27·595	+·002	29·919	27·638	7th	27·551	13th	·087	77·2	93·0	+3·6	68·9	+3·1	81·0	+3·4	24·1	96·2	28th	63·4	7th	32·8
		Bangalore	3,021	27·014	−·012	29·957	27·060	7th	26·968	16th	·092	69·9	89·1	+3·9	62·1	+3·2	75·6	+3·6	27·0	92·3	12th	56·9	9th	35·4
		Hassan	3,091	26·967		29·974	26·998	7th & 8th.	26·905	16th	·093	70·8	89·2		58·7		74·0		30·5	92·1	27th	53·2	6th	38·9
		Mysore	2,518	27·510	+·015	29·967	27·556	8th	27·460	16th	·096	71·9	91·1	+2·3	65·0	+1·9	78·1	+2·1	26·1	93·6	27th	58·4	7th	35·2
56	Madras (East Coast, South).	Negapatam	31	29·985	−·007	29·945	30·041	8th	29·923	16th	·118	79·9	87·8	0	73·9	+2·4	80·9	P	13·9	90·0	5 days	67·9	12th	22·1
		Cuddalore	12	30·010	P	29·951	30·061	7th	29·953	16th	·108	76·5	87·1	+1·6	67·2	−1·8	77·2	−0·1	19·9	88·3	8 days	63·3	6th	25·0
		Trichinopoly	255	29·766	−·010	29·958	29·819	8th	29·715	16th	·104	76·9	95·6	+3·6	70·6	+2·8	83·2	+3·2	25·0	98·1	20th	66·4	13th	31·7
		Madras	22	30·006	−·014	29·959	30·077	7th	29·943	17th	·134	76·8	87·7	+1·1	69·0	+1·0	78·3	+1·1	18·7	90·0	13th	66·0	6th	24·6
55	Madras (East Coast, Central).	Nellore	71	29·932	−·004	29·937	30·008	7th	29·865	17th	·143	75·5	93·1	+2·6	69·5	+0·6	81·3	+1·6	23·6	97·9	13th	66·6	7th	31·3
		Masulipatam	15	30·007	−·005	29·957	30·075	7th	29·938	17th	·137	76·7	88·9	+2·1	69·3	+1·6	79·1	+1·9	19·6	93·1	14th	65·2	3 days	27·9
54	Madras (Central)	Cuddapah	433	29·535	−·011	29·932	29·618	7th	29·478	16th	·140	80·2	99·5	+5·1	71·9	+3·7	85·7	+4·4	27·6	102·7	28th	66·4	2nd	36·3
		Kurnool	923	29·053	−·020	29·938	29·099	7th & 8th	28·989	13th	·110	73·4	97·5	+3·1	67·6	+3·9	82·6	+3·5	29·9	100·2	12th	60·3	4th	39·9
		Bellary	1,475	28·505	−·011	29·937	28·551	8th	28·451	13th	·100	77·0	97·6	+3·5	69·7	+4·9	83·7	+4·2	27·9	101·2	28th	64·2	4th & 7th	37·0
52	Madras (East Coast, North).	Cocanada	26	29·991	−·005	29·952	30·060	7th	29·920	13th	·140	75·9	89·3	+3·4	69·8	+0·2	79·6	+1·8	19·5	96·1	13th	65·0	2nd	31·1
		Waltair (Vizag.)	226	29·775	−·019	29·946	29·835	7th	29·707	17th	·128	76·2	85·3	+0·3	72·1	+1·0	78·8	+0·7	13·2	86·9	3days	66·4	2nd	20·5
		Gopalpur	21	29·972	−·012	29·934	30·040	1st	29·883	18th	·157	74·9	85·2	+1·9	69·8	+2·0	77·5	+2·0	15·4	87·8	4th	63·1	3rd	24·7
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·832			25·920	9th	25·700	16th	·220	47·4	62·9		34·5		48·7		28·4	74·0	28th	20·0	5th	54·0
		Pishin				Not	record	ed.					54·2		29·5		41·9		24·7	68·0	28th	15·0	5th	53·0
		Quetta	5,502	24·678	+·017		24·806	4th	24·562	10th	·244	36·5	52·0	−0·1	32·8	+1·4	42·4	+0·7	19·2	69·2	28th	18·3	5th	50·9
		Kalat				Not	record	ed.				34·7	52·6		25·7		39·2		26·9	69·1	27th	10·6	3rd	58·5
		Chaman	4,311	25·759	+·037		25·942	1st	25·635	10th	·307	42·4	54·8	−1·9	37·2	+1·3	45·7	−0·3	17·6	65·8	28th	20·1	4th	45·7
30	Punjab	Leh	11,503	19·643	+·042		19·806	27th	19·504	17th	·302	13·8	28·5	−6·4	9·5	−1·0	19·0	−3·7	19·0	34·5	23rd & 28th	1·0	6th	33·5
		Srinagar	5,204	24·947	0		25·057	9th	24·804	25th	·253	33·3	45·0	+3·3	30·4	+3·9	37·7	+3·6	14·6	56·0	22nd & 23rd,	16·6	1st	39·4
		Astor (Kashmir).		22·629			22·801	5th	22·473	11th	·328	24·2	37·4		21·4		29·4		16·0	43·9	26th	11·0	6th	32·9
		Minimarg.		21·306			21·424	23rd	21·169	11th	·255													
		Skardu		22·913			23·094	27th	22·762	11th	·332	29·5	40·6		26·3		33·5		14·3	60·5	26th	19·2	6th	41·3
		Dras		20·784			20·965	27th	20·625	17th	·340	2·1	22·7		−10·9		5·9		33·6	33·3	26th	−26·9	14th	60·2
		Gilgit		25·236			25·437	5th	25·074	11th & 12th.	·363	41·0	50·6		37·5		44·0		13·1	59·6	28th	32·1	3rd	27·5
		Chitral		24·738			24·862	6th	24·595	17th	·267	35·2	48·5		32·7		40·6		15·8	62·1	28th	23·0	4th	39·1
		Killa Drosh				Not	record	ed.				36·3	47·6		33·0		40·3		14·6	61·9	28th	23·8	5th	38·1
		Para Chinar	6,000									36·9	49·6		31·8		40·7		17·8	60·1	28th	21·5	4th	38·6
		Cherat		25·742	+·013		25·853	8th	25·640	18th	·213	43·1	51·0	−1·0	40·3	+0·5	45·7	−0·3	10·7	59·7	28th	33·5	3rd & 4th	26·2

1—*continued.*

in India, Burma, etc., in February, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st January to 28th February, 1900.	Normal rainfall for period, 1st January to 28th February.	Variation from normal of period, 1st January to 28th February.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				0·02	0·28	− 0·26					XI.—South India.		
2		3	23						N 85° E	7·8				81	·849	2·2	0	0·50	−0·50	0·03	0·13	− 0·10	0·37	1·93	− 1·56	0·03	Pamban	Madras (South).	57
	13	2					2	11	N 21° W	4·4	4·2			75	·746	3·2	1	1·50	− 0·50	0·37	0·77	− 0·40	0·78	2·03	− 1·25	0·35	Tinnevelly.		
1	10	7	3	1				6	N 14° E	3·5	3·5	5·0	− 30	78	·771	2·0	0	0·45	− 0·45	0	0·31	− 0·31	0·23	0·64	− 0·41	0	Madura.		
18		4	1	2			3		N 58° E	2·4	2·6			67	·602	1·3	0			0·13			2·07			0·07	Periya Kulan		
10		9	9						N 67° E	4·7	4·2	5·6	− 25	74	·681	0·9	0	0·09	− 0·09	0	0·30	− 0·30	0·91	0·61	+ 0·30	0	Salem	Madras (South Central).	34
		11	16	1					N 74° E	1·6		3·2	− 50	85	·732	5·2	0	0·30	− 0·30	0	0·29	− 0·29	5·73	0·48	+ 5·25	0	Coimbatore.		
14	7	2	4		1				N 36° E	5·1	4·7	4·0	+ 18	71	·476	2·0	0	0·30	− 0·30	0	0·07	− 0·07	0·02	0·11	− 0·09	0	Mercara	Coorg.	35
3	1		3	6	3	6	4	2	S 15° W	7·1	6·2			46	·433	1·0	0			0	0·04	− 0·04	0	0·28	− 0·28	0	Chitaldroog	Mysore.	36
1		1	9	6	7	3	1		S 41° E	8·1	7·0	3·6	+ 94	67	·489	0·8	0	0·18	− 0·18	0	0·11	− 0·11	0·03	0·30	− 0·27	0	Bangalore.		
2		3	7	10	3	1	1	1	S 60° E	2·8	2·4			63	·471	2·7	0			0	0·09	− 0·09	0	0·79	− 0·79	0	Hassan.		
	2	5	2	2	5	7	4	1	S 28° W	6·6	7·1			68	·521	3·9	0			0	0·13	− 0·13	0	0·21	− 0·21	0	Mysore.		
14	1	9	2	1				1	N 49° E	11·7	12·8	3·6	+256	77	·783	3·3	0	0·55	− 0·55	0	0·53	− 0·53	0·50	1·99	− 1·49	0	Negapatam	Madras (East Coast, South).	56
	3			1		3	8	13	N 63° W	2·2	2·7			88	·812	0·4	0	0·40	− 0·40	0	0·31	− 0·31	0·13	1·36	− 1·23	0	Cuddalore.		
23	1	3	1						N 45° E	3·3		4·1	− 20	80	·741	1·3	0	0	0	0	0·90	− 0·90	0·21	1·16	− 0·95	0	Trichinopoly.		
2	1	1		1	20	3			S 2° W	4·6		5·0	− 8	82	·752	2·5	0	0·09	− 0·09	0	0·28	− 0·28	0·33	1·17	− 0·84	0	Madras.		
4				10	11		1	2	S 15° E	3·8				86	·765	1·5	0	0·20	− 0·20	0	0·09	− 0·09	0·18	0·53	− 0·35	0	Nellore	Madras (East Coast, Central).	55
12	3	1		5	6	1			S 29° E	4·9		5·1	− 4	84	·772	2·3	0	0·27	− 0·27	0	0·17	− 0·17	0	0·29	− 0·29	0	Masulipatam		
		9	11	8					N 88° E					63	·646	0·4	0	0·10	− 0·10	0	0·06	− 0·06	0	0·08	− 0·08	0	Cuddapah	Madras (Central).	54
23				4	1				S 37° E					51	·429	1·0	0	0	0	0	0	0	0	0·08	− 0·08	0	Kurnool.		
12				2	6	4	2	2	S 29° W	4·6	4·9	4·0	+ 23	40	·374	2·0	0	0·09	− 0·09	0	0·04	− 0·04	0	0·17	− 0·17	0	Bellary.		
3	2	2			5	7	2	7	S 81° W	7·8	7·2			77	·681	2·1	0	0·40	− 0·40	0	0·43	− 0·43	0	0·57	− 0·57	0	Cocanada.	Madras (East Coast, North).	52
4			1			4		19	N 54° W	11·3				77	·693	2·0	0			0						0	Waltair (Vizag).		
6	4				2	6	5	5	N 84° W	14·0	13·7	9·6	+43	82	·701	0·2	0	1·13	− 1·13	0·02	0·55	− 0·53	0·02	0·73	− 0·71	0·02	Gopalpur.		
																											XII.—Hill Stations.		
11		1				9		7	S 85° W	6·0						2·8	1			0·31	1·59	− 1·28	1·04	4·10	− 3·06	0·21	Shahrig	Baluchistan.	48
																	6			2·40	2·36	+ 0·04	3·16	5·20	− 2·04	0·56	Pishin.		
21		1	1	2	2			1	S 49° E	2·2	2·3	4·4	− 48	85	·185	3·6	9	4·09	+ 4·91	2·59	2·21	+ 0·38	4·63	4·32	+ 0·31	0·57	Quetta.		
	2		1		24		1		S					85	·177		3			1·13	2·61	− 1·48	1·81	4·51	− 2·70	0·38	Kalat.		
	3		6	10	4	4	1		S 39° E	5·4	5·7			87	·244	3·5	4			3·29	1·66	+1·63	5·54	3·31	+ 2·23	0·98	Chaman.		
	1	8	5	1	4	3	6		S 86° E	1·4				55	·046	7·6	0			0·26	0·28	− 0·02	0·92	0·61	+ 0·31	0·07	Leh	Punjab.	30
10	1		3	8	1		1	4	S 59° E	3·2	3·4			86	·168	7·6	6			2·21	2·94	− 0·73	5·59	5·53	+ 0·06	0·68	Srinagar.		
12					7	9			S 25° W	5·6				75	·101	6·4	1			0·37			1·22			0·11	Astor (Kashmir).		
13	1		8	4	1				S 75° E	4·9						4·7	10			3·92			10·07			0·73	Minimarg.		
22						2	3	1	S 82° W	3·6	4·3			84	·137	7·5	2			0·34	1·45	− 1·11	0·87	3·73	− 2·86	0·12	Skardu.		
28									Calm	0·2	0·2			97	·054	5·4	12			2·50			4·91			0·30	Dras.		
19						4	4		S 67° W	3·4	3·3			50	·126	8·3	2			0·23	0·11	+ 0·12	0·27	0·25	+ 0·02	0·10	Gilgit.*		
21						6		1	S 51° W	0·8	0·8			72	·149		2			0·80			3·40			0·60	Chitral.		
10	1		8		2		7		S 43° E					79	·170	6·3	3			1·35			1·35†			0·80	Killa Drosh.		
	6	4	1			4	6	7	N 42° W	3·1				73	·158	4·9	6			1·74			3·61			0·55	Para Chinar.		
1	16	2			3			6	N 9° W	13·9	12·9			63	·174	5·3	5			3·31	2·34	+ 0·97	6·76	5·28	+ 1·48	1·23	Cherat.		

* Winds for 27 days.

† Total of February only.

Table

Abstract of Observations taken at 8 A.M. at 220 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 actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 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.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
30	Punjab—(*contd.*)	Murree	6,333	23·853	+·038		23·970	9th	23·752	11th	·218	38·7	44·7	−2·8	33·9	0	39·3	−1·4	10·8	53·2	28th	27·0	3rd	26·2
		Poo											39·4		22·5		31·0		16·9	45·2	9th	18·0	5th	27·2
		Simla	7,224	23·084	+·005		23·163	8th	23·001	18th	·162	39·7	46·4	−0·6	36·0	0	41·2	−0·3	10·4	53·3	16th	30·5	18th	22·8
25	North-Western Provinces.	Chakrata	7,022	23·274	+·016		23·345	8th	23·173	18th	·172	39·2	50·5	−0·4	35·8	+0·1	43·2	−0·2	14·7	59·3	16th	30·8	18th & 25th.	28·5
		Mussooree	6,705	23·545	+·001		23·635	8th	23·450	18th	·185	41·2	49·9		36·9		43·4		13·0	60·2	25th	31·5	3 days	28·7
		Ranikhet	6,069	24·108	+·009		24·197	8th	24·035	28th	·162	44·3	54·5	−0·7	41·1	+0·5	47·9	−0·1	13·4	61·2	16th & 28th.	31·0	18th	30·2
		Muktesar		22·822			22·917	24th	22·764	13th & 27th.	·153	41·5	50·6		36·1		43·4		14·5	61·1	28th	28·7	18th	32·4
13	Bengal	Yatung	10,480?										43·2		22·4		32·3		20·8	50·1	5th	17·9	14th	32·2
		Darjeeling	7,409	22·985	+·043		23·064	24th	22·906	27th	·158	40·8	49·7	+3·5	35·5	+1·4	42·6	+2·5	14·2	57·2	4th	32·6	22nd	24·6
		Gantok	5,660	24·500			24·646	1st	24·425	14th	·221	47·6	58·9		27·7		43·3		31·2	66·1	4th	25·0	22nd	41·1
	Central India	Mount Abu	3,945	26·103	−·013		26·168	8th	25·998	17th	·170	60·3	69·1	+0·2	54·7	+1·5	61·9	+0·9	14·4	74·1	8th	50·0	3rd	24·1
		Pachmarhi	3,528	26·518	−·010		26·589	8th	26·427	17th	·162	62·3	79·5	+4·5	52·6	+1·9	66·1	+3·2	26·9	83·7	9th	47·3	7th	36·4
	South India	Wellington	6,200	24·310	−·003		24·345	8th	24·266	16th	·079	59·9	74·1	+3·7	48·4	+1·7	61·3	+2·7	25·7	77·2	3 days	42·2	10th	35·0
		Kodaikanal	7,688	22·890			22·925	27th	22·844	16th	·081	57·5	66·7		48·7		57·7		18·0	70·8	7th	45·2	2nd	25·6
XIII.—Extra India.																								
	Ceylon	Trincomalee	12	29·981	−0·05	29·919	30·039	7th	29·918	15th	·121	79·6	86·3	−0·5	76·0	+1·0	81·2	+0·3	10·3	89·0	18th	72·5	13th	16·5
		Colombo	40	29·946	−·008	29·912	30·005	8th	29·898	16th	·107	80·7	92·1	+3·8	74·5	+1·9	83·3	+2·9	17·6	93·5	5th & 25th.	72·0	5th	21·5
	Persia	Meshed	3,104									33·0			28·4							5·0	3rd	
		Teheran		26·074§			26·370	1st & 3rd.	25·800	18th	·570	35·0	47·8		31·0		39·4		16·8	62·5	26th	19·8	3rd	42·7
				25·314‖			25·600	1st	25·120	18th	·480													
		Ispahan	§	24·310			24·550	1st	24·100	18th	·450	36·2	51·0		30·0		40·5		21·0	63·3	25th	22·1	3rd	41·2
				24·514			24·760	1st	24·300	18th	·460													
		Bushire*	14	30·048	−·027	30·021	30·209	10th	29·899	25th	·310	58·9	66·0	0	55·4	+2·9	60·7	+1·5	10·6	74·1	26th	50·3	1st	23·8
		Jask		30·016	−·036		30·222	4th	29·888	22nd	·334	65·3	73·6	−1·1	62·4	+0·7	68·0	−0·2	11·2	79·3	24th	56·8	4th	22·5
	Arabia	Muscat	20	30·070		30·038	30·243	4th	29·977	18th	·266	69·9	72·0		68·0		70·1		4·0	75·4	28th	64·9	13th	10·5
		Baghdad	220	29·887	+·076	30·097	30·110	10th	29·593	14th	·517	50·9	66·4	+0·8	45·9*	+5·6	56·1*	+3·2	20·5	73·2	17th	37·5	1st	35·7
		Bussorah		30·062			30·259	10th	29·834	25th	·425		63·7							69·0	28th			
		Aden	94	29·927	−·028	29·954	29·987	21st	29·849	26th	·138	77·2	81·2	−1·2	75·6	+2·6	78·4	+0·7	5·6	84·3	3 days	72·9	23rd	11·4
		Perim	201	29·788		29·925	29·851	21st	29·725	25th	·126	76·5	83·3		74·8		79·1		8·5	85·7	26th	71·8	15th	13·9
	Afghanistan	Kabul										31·1	59·7		26·2		43·0		33·5	71·2	7th & 19th.	19·4	2nd	51·8
	Central Asia	Kashgar		† 25·768			26·041	3rd	25·441	24th	·630	10·9‡	27·5*		5·3*		16·4*		22·2	49·0	27th	−7·7	2nd	47·7
	Arabian Sea Islands.	Amini Devi	13	30·020		29·961	30·069	20th	29·975	13th	·094	82·0‡	87·3		76·6		82·0		10·7	90·6	11th	73·3	9th	17·3
		Minicoy	7	29·949		29·881	29·999	7th	29·901	2nd	·098	82·1	86·0							87·5	28th			
	Africa	Zanzibar	73	29·938	+·021	29·938	30·006	8th	29·868	1st	·138	82·8	88·1		80·6		84·3		7·5	90·9	26th	77·0	27th	13·9
		Do. (Dunga)																						

* Mean of 27 days. † Aneroid corrected. NOTE.—When a query is inserted against any reading or in the variation returns fr an

‡ Mean of 16 days. § Aneroid uncorrected. ‖ Mountain Barometer uncorrected. ¶ Mean of 20 days.

—concluded.

n India, Burma, etc., in February, 1900—concluded.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer uncorrected.	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st January to 28th February 1900.	Normal rainfall for period, 1st January to 28th February.	Variation from normal of period, 1st January to 28th February.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
7	1	2	3	8	7				S 56° E	6·5	8·0	8·2	− 2	59	·135	4·5	6	3·36	+2·64	2·28	3·73	−1·45	7·47	7·25	+0·22	0·55	Murree.	Punjab—(*contd.*)	30
																5·2	6			2·48	3·93	−1·45	6·31	7·13	−0·82	0·62	Poo.		
11	1	6	4	2	3			1	N 81° E	3·3		2·5	+32	50	·120	5·3	7	4·36	+2·64	2·45	2·68	−0·23	5·83	5·03	+0·80	0·60	Simla.		
8	10	4	2				1	3	N 3° E	9·3		5·4	+72	64	·149	5·1	9			4·35	3·81	+0·54	13·64	7·34	+6·30	1·05	Chakrata	North-Western Provinces.	25
1	2	4	7	3			1	10	N 22° E					62	·161	4·9	7	3·50	+3·50	3·40	2·89	+0·51	9·93	5·72	+4·21	1·35	Mussooree.		
16	1	2	2	2	2	2		1	S 56° E	2·0	2·3	2·0	+15	62	·180	4·0	5	4·09	+0·91	2·32	1·95	+0·37	6·20	4·89	+1·31	1·49	Ranikhet.		
4		3	2	9	1	2		7	S 63° E	5·4	5·0			61	·160	3·4	5			2·23			5·61			0·90	Muktesar.		
																**	2			0·87			3·50			0·60	Yatung	Bengal.	3
11		1	4	5	1	3	2	1	S 31° E	7·5	7·0	5·1	+37	84	·215	3·3	2	2·65	−0·65	0·44	0·95	−0·51	1·34	1·61	−0·27	0·15	Darjeeling.		
28										3·0	3·6			73	·240	2·1	2			1·22	2·29	−0·87	3·06	2·98	+0·08	0·92	Gantok		
6	7	5		1		4	3	2	N 14° W	6·9	7·2	5·6	+29	32	·165	2·1	0	0·36	−0·36	0	0·36	−0·36	0	0·78	−0·78	0	Mount Abu	Central India.	
5	2	1	1	3	1		1	4	N	5·1	5·2	3·8	+37	42	·232	2·2	0	0·82	−0·82	0·04	0·45	−0·41	0·79	0·96	−0·17	0·04	Pachmarhi.		
5		3							N 45° E	2·4		2·7	−11	62	·315	1·5	2	0·50	+1·50	0·58	1·53	−0·95	2·06	2·57	−0·51	0·45	Wellington.	South India.	
1	3	4	5	14			1		S 77° E	7·2				43	·195	2·4	2			1·39			3·08			1·11	Kodaikanal.		
																											XIII.—Extra India.		
6		6				6			0	1·0				84	·853	1·8	1			0·13	2·59	−2·46	5·03	10·03	−5·00	0·13	Trincomalee	Ceylon.	
	1	7	13	7					N 87° E	6·2		6·2	0	79 ††	·828 ††	1·5	3			0·63	2·63	−2·00	5·19	5·55	−0·36	0·28	Colombo.		
														72	·164	5·4	2			0·88	0·90	−0·02	0·88	1·13	−0·25	0·42	Meshed	Persia.	
										2·2	2·9			73¶	·173¶	4·6	4			1·04	1·02	+0·02	1·54	2·18	−0·64	0·31	Teheran.		
1			1	1	1	6	7	1	S 63° W	3·3	4·3			82	·179	4·5	2			0·42	0·04	+0·38	0·42	0·15	+0·27	0·28	Ispahan.		
2	2	7	2	9	3			2	S 85° E	8·1	9·6			83	·415	4·7	8			6·65	2·51	+4·14	8·47	5·90	+2·57	2·61	Bushire.*		
1	8	6	8	1				4	N 36° E	11·6	13·5			74	·478	4·9	2			1·70	1·33	+0·37	3·21	2·04	+1·20	1·14	Jask.		
8	1		3	2	2	1	1	10	N 47° W	6·0	6·3			72	·536	5·6	2			1·32	1·14	+0·18	3·85	3·50	+0·35	0·75	Muscat	Arabia.	
3	1	1	1	5	3	2		2	S 22° E	2·1	2·8			83	·315	4·8	4			1·16	2·49	−1·33	1·59	4·08	−2·49	0·23	Baghdad.		
	6		1	1	9	2		7	S 88° W								6			3·42			3·96			0·87	Bussorah.		
	1	4	20	2		1			N 86° E	18·0		12·9	+40	78	·727	7·3	1			1·24	0·33	+0·91	1·43	0·61	+0·82	1·20	Aden.		
9		7	4	5	1			2	N 80° E	19·0	17·6			82	·749	7·0	4			1·17	0·25	+0·92	2·28	0·75	+1·53	0·36	Perim.		
9	2	3	1	1	2	3	4	3	S 76° W							4·3	0			0	0·72	−0·72	0	0·72	−0·72	0	Kabul	Afghanistan.	
8			3		1		5		S 63° W	P	P					7·2*	0			0	0	0	0·56	0·42	+0·14	0	Kashgar	Central Asia.	
3	12	1	2					10	N 11° W					88‡	·964‡	3·4	0			0			0			0	Amini Devi.	Arabian Sea Island.	
	15	11						2	N 15° E	4·6	5·0			74	·807	1·8	1			0·29			1·16			0·29	Minicoy.		
2	7	5	3	2	3	1	3	2	N 21° E	5·5				80	·894	6·3	7			4·51	2·98	+1·53	8·96	5·93	+3·03	1·76	Zanzibar	Africa.	
																											Do. (Dunga)		

station, the data for that station are not utilized in calculating the provincial variations.

** Mean of 25 days.

†† Mean of 26 days.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66

Meteorological Province.	Station.	Elevation of barometer above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
Burma Coast and Bay Islands.	Port Blair		29·958	29·846	·112	29·897	+·010	29·889	88·9	76·9†	12·0	91·7	72·3	19·4	84·5	87·5	82·1†	+ 2·2	74·1	78·4	79·3	77·3
	Rangoon		·975	·827	·148	·897	−·012	·875	95·7	66·7	29·0	97·9	62·5	35·4	80·9	93·3	78·9	+ 2·5	64·6	71·0	71·1	68·9
	Diamond Island		·991	·874	·117	·928	−·004	·904	84·5	75·2	9·3	89·0	73·1	15·9	81·9	81·9	78·7	+ 2·1	70·7	74·9	74·6	73·4
	Cocos Island**	111	·895	·797	·098	·842	−·018	·885	85·9	75·4	10·5	88·4	74·1	14·3	82·3	82·2	79·3	+ 2·6	71·4	75·5	75·3	74·1
	Akyab		30·007	·890	·117	·941	−·013	·904	87·4	?	?	89·9	?	?	76·0	82·3	?	?	?	68·9	70·9	?
Bengal and Orissa.	Chittagong		29·957‡	·835	·122	·889	−·014	·926‡	84·6	62·5‡	22·1	88·7	56·3	32·4	76·5‡	81·4	73·2‡	+ 3·1	61·4‡	69·0‡	69·4	66·6
	Calcutta (Alipore)		30·022	·886	·136	·943	−·010	·910	85·1	64·5	20·6	89·7	58·2	31·5	76·9	83·7	74·1	+ 4·1	61·8	67·9	69·6	66·4
	Saugor Island		·009	·892	·117	·938	−·011	·908	84·7	70·3	14·4	88·7	61·5	27·2	78·9	81·4	76·2	+ 4·2	67·9	72·9	72·9	71·2
	False Point		·006	·887	·119	·944	−·030	·906	84·6	69·9	14·7	87·9	62·5	25·4	81·4	82·0	76·1	+ 4·0	69·1	75·3	75·6	73·3
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·995	27·888	·107	27·938	−·001	·909	79·2	55·8	23·4	86·2	47·1	39·1	69·1	77·6	67·0	+ 1·4	50·7	56·6	59·7	55·7
	Darbhanga		29·854	29·725	·129	29·784	−·029	·908	77·5	55·7	21·8	81·2	47·1	34·1	69·2	76·7	66·3	+ 1·4	53·9	61·4	63·5	59·6
	Allahabad		·724	·603	·121	·655	−·022	·925	79·7	53·9	25·8	85·2	46·2	39·0	70·9	79·3	66·2	+ 0·9	51·2	59·8	61·9	57·6
Upper Sub-Himalayan.	Dehra Dun		27·735	27·662	·073	27·692	−·014	·953	69·1	47·3	21·8	73·8	41·1	32·7	59·2	65·0	56·6	− 0·8	44·6	52·1	53·1	49·9
	Roorkee		29·102	29·012	·090	29·049	−·019	·936	73·5	48·4	25·1	80·4	40·2	40·2	62·6	71·0	59·7	− 0·1	45·6	53·9	56·5	52·0
	Meerut		·255	·158	·097	·201	−·031	·928	77·1	50·8	26·3	84·7	39·0	45·7	65·4	74·0	62·7	+ 1·9	46·9	55·4	58·3	53·5
	Lahore		·323	·238	·085	·270	−·014	·973	71·3	48·0	23·3	81·4	38·2	43·2	59·9	70·7	58·9	+ 2·2	44·6	52·9	56·7	51·4
	Lahore (New Shed)			No	barometer.				73·0	46·9	26·1	84·5	37·0	47·5	61·8	70·9	58·8		44·2	53·8	56·7	51·6
	Ludhiana		·194	·113	·081	·145	−·013	·959	72·5	49·6	22·9	83·7	41·1	42·6	61·9	70·2	59·9	+ 2·3	46·8	52·8	55·1	51·6
Indus Valley and N.-W. Rajputana.	Peshawar		28·946	28·862	·084	28·894	−·012	30·041	65·1	44·3	20·8	75·1	35·9	39·2	57·2	63·7	53·8	+ 1·3	41·7	50·4	53·0	48·4
	Jacobabad		29·876	29·747	·129	29·801	−·020	29·951	81·9	49·8	32·1	97·0	39·0	58·0	69·5	80·4	64·8	+ 3·0	43·1	54·9	59·9	52·7
	Kurrachee		30·061	·949	·112	·997	−·002	·978	83·1	57·7	25·4	90·4	48·2	42·2	74·2	78·5	69·4	+ 1·2	51·8	61·1	65·3	59·4
East Rajputana, Central India, and Gujarat.	Jaipur		28·594	28·486	·108	28·530	−·012	·946	80·6	54·4	26·2	90·1	41·8	48·3	70·5	78·8	67·0	+ 3·7	46·1	55·3	58·2	53·7
	Udaipur		·098	27·970	·128	·034		·932	81·9	54·8	27·1	91·1	47·4	43·7	72·4	80·6	68·1		46·2§	54·2	57·9	52·1
	Deesa		29·578	29·448	·130	29·504	−·002	·928	87·7	58·1	29·6	94·6	51·1	43·5	77·7	86·5	72·7	+ 2·2	47·0	56·9	59·3	54·3
	Jamnagar		30·017	·881	·136	·949		·955	84·3	56·5	27·8	91·0	50·3	40·7	75·0	82·6	70·0		48·7	59·8	60·4	56·7
Deccan.	Belgaum		27·463	27·332	·131	27·393	−·007	·810	90·5	61·2	29·3	94·3	56·0	38·3	82·2	87·8	74·6	+ 1·8	54·9	59·5	63·2	59·7
	Sholapur		28·405	28·253	·152	28·324	−·024	·831	97·3	65·9	31·4	100·3	59·2	41·1	85·2	95·4	81·8	+ 3·7	51·3	61·2	64·9	59·
	Poona		·174	·034	·140	·103	+·002	·862	94·4	56·9	37·5	98·8	48·9	49·9	80·1	92·6	75·3	+ 2·2	50·3	58·6	62·5	57·
	Akola		29·077	·921	·156	·993	−·020	·870	95·1	59·5	35·6	100·8	53·4	47·4	82·3	93·7	76·6	+ 3·5	48·2	64·4	70·1	61·
	Buldana	2,132	27·874	27·741	·133	27·801	−·013	·855	89·6	65·0	24·6	95·1	59·1	36·0	78·9	88·2	76·6	+ 3·4	49·1	55·7	58·7	54·
	Khandwa		28·972	28·823	·149	28·892	−·005	·889	91·6	57·4	34·2	97·9	51·1	46·8	80·0	91·1	74·2	+ 2·9	45·5	58·6¶	62·3	55·
	Nagpur		·983	·823	·160	·897	−·014	·873	94·1	62·2	31·9	99·3	56·4	42·9	80·0	91·5	77·2	+ 3·5	51·5	60·9	65·5	59·
	Nagpur (Sanitary Commr.'s Office)		29·006	·862	·144	·928		·894	95·0	62·3	32·7	100·5	57·0	43·5	81·3	93·1	78·2		52·0	60·9	65·4	59·
	Hyderabad (Deccan).		28·312	·173	·139	·237	−·019	·347	94·7	67·5	27·2	97·9	64·2	33·7	84·0	92·5	80·6	+ 4·5	60·8	66·7	67·4	65·
West Coast.	Bombay		30·003	29·881	·122	29·933	+·008	·911	81·6	68·1	13·5	83·6	64·3	19·3	75·8	78·7	74·4	− 0·7	61·3	67·0	70·0	66·
	Karwar		29·988	·866	·122	·918	+·014	·894	85·6	67·8	17·8	89·3	64·0	25·3	79·6	83·9	76·5	0	66·1	71·5	74·0	70·

† Mean of 23 days.

‡ Mean of 27 days.
** Observations of 27 days.

§ Mean of 25 days.

II.

Stations in India, Burma, etc., for February, 1900.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Number of winds from											Wind Steadiness.		Wind Velocity.		Rainfall.			
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	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.
																									%	%						
·811†	·894	·893	·866	+·056	88†	75	68	77	+1	2·9	3·1	3·0	+0·2		10	42	2	1				1	N. 38° E.	N. 45° E.	91	74	95	121			Port Blair	Burma Coast and Bay Islands.
·586	·627	·468	·560	−·014	89	60	30	60	−3	1·0	1·0	1·0	−0·9		7	7	3	7	6	10	11	5	S. 75° W.	S. 45° W.	16	17	86	91			Rangoon	
·689	·772	·763	·741	+·063	79	71	70	73	+1	1·3	1·6	1·5	−0·7		13	9	1	1			6	26	N. 24° W.	N. 32° W.	71	85	273*	195			Diamond Island.	
·719	·795	·788	·767	−·033	82	72	71	75	+5	1·1	1·6	1·4	−0·6		31	2						21	N. 16° W.	N. 9° E.	89	89	168	377	Nil	Nil	Cocos Island.**	
?	·616	·608	?	?	?	68	55	?	?	1·3	1·6	1·5	+0·4			14	14			1	13	14	N. 1° E.	N. 25° W.	34	47	74	85			Akyab	
·535‡	·606‡	·564	·568	+·059	94‡	67‡	53	71	+1	2·6	3·6	3·1	+1·2	1	4	17	1	5	2	6	3	16	N. 6° W.	N. 43° W.	32	29	91*	93			Chittagong	Bengal and Orissa.
·523	·573	·542	·546	+·078	85	61	47	65	0	3·8	3·4	3·6	+1·7	6	8	7	6	2	5	7	6	9	N. 32° W.	S. 89° W.	17	25	48	80			Calcutta (Alipore).	
·660	·733	·701	·698	+·085	88	74	66	76	+1	5·0	4·4	4·7	+2·5	1	6	9	1	5	21	7		6	S. 7° E.	S. 52° W.	23	18	239	206			Saugor Island.	
·716§	·798	·804	·773	+·145	95§	74	73	81	+3	6·3	4·6	5·5	+2·8		3	3	6	11	21	6	4	2	S. 13° E.	S. 12° E.	48	17	202*	191			False Point	
·312	·310	·296	·306	+·053	69	43	31	47	+5	2·9	3·4	3·2	+0·9	1	5		2	1	8	2	19	18	N. 76° W.	N. 62° W.	54	55	171*	172			Hazaribagh	Gangetic Plain and Chota Nagpur.
·397	·447	·416	·420	+·038	89	63	45	68	+5	0·9	0·8	0·9	−0·7		1	1	8	6	1	9	23	7	S. 77° W.	S. 78° W.	39	47	99	90			Darbhanga	
·346	·371	·328	·348	+·018	83	49	33	55	−1	2·3	2·8	2·6	+0·4	1	3	2	8	2	1	3	18	18	N. 60° W.	N. 63° W.	45	34	125*	100			Allahabad	
·262	·304	·260	·275	−·008	80	60	43	61	−1	4·3	5·6	5·0	+0·7	4	1	5	3	3	2	13	19	2	S. 71° W.	S. 88° W.	43	28	45‡	43			Dehra Dun	Upper Sub-Himalaya.
·273	·304	·266	·281	−·010	80	54	36	57	−4	3·5	2·9	3·2	−0·2	18	3	2		4	1	1	3	24	N. 45° W	N. 61° W.	41	31	82	68			Roorkee	
·276	·312	·285	·291	−·003	74	49	34	52	−6	3·3	3·4	3·4	+0·5	12	1	1	4			2	19	17	N. 68° W.	N. 59° W.	53	50	88*	61			Meerut	
·255	·312	·277	·281	−·001	75	60	38	58	0	2·9	3·9	3·4	−0·3	9	11	1	3	1	2		13	16	N. 44° W.	N. 31° W.	50	31	48	54			Lahore	
·258	·313	·276	·282		79	57	38	58																							Lahore (New Shed).	
·288	·284	·240	·271	−·032	81	52	34	56	−8	3·9	3·6	3·8	−0·5	8	20	1			5		21	1	N. 52° W.	N. 50° W.	48	40	51*	44			Ludhiana	
·237	·287	·278	·267	+·034	80	61	49	63	+5	5·5	4·6	5·1	+0·7	33	5	2	4		1		9	2	N. 36° W.	N. 9° W.	14	9	39*	82			Peshawar	Indus Valley and N.-W. Rajputana.
·196	·245	·252	·231	0	53	33	24	37	−5	2·3	3·7	3·0	−0·4	14	3	5	8	6	1	3	5	11	N. 7° E.	N. 21° E.	12	24	79*	71			Jacobabad	
·319	·375	·452	·382	−·027	64	44	47	52	−6	1·6	2·9	2·3	−0·5	1	2	5	9	1	3	13	16	6	S. 79° W.	N. 69° W.	29	20	180*	249			Kurrachee	
·214	·254	·235	·234	−·022	50	38	23	35	−8	4·1	3·5	3·8	+0·8		3	13	4	2	6	6	13	9	N. 52° W.	N. 18° W.	20	34	90	93			Jaipur	East Rajputana, Central India, and Gujarat.
·210‖	·199	·205	·205		48‖	25	19	31		1·5	1·7	1·6		11	5	5	7	7	3	4	7	7	N. 14° E.		5		82				Udaipur	
·181	·192	·146	·173	−·056	37	21	12	23	−7	1·7	1·9	1·8	−0·6		11	11	7	2	1	2	10	12	N. 9° W.	N. 2° W.	44	30	231	211			Deesa	
·245	·321	·230	·265		53	36	21	37		0·9	0·6	0·8			12	15	3			4	11	11	N. 16° W.		51		303*				Jamnagar	
·257	·227	·275	·286	−·042	66	20	21	36	−3	0·1	0·1	0·1	−1·1		10	11	8	6	2	6	6	5	N. 30° E.	S. 62° E.	23	14	224¶	237			Belgaum	Deccan.
·199	·243	·235	·225	−·095	31	20	14	22	−13	0·4	1·1	0·8	−0·7	3	5	5	2	8	9	4	7	13	N. 88° W.	S. 43° E.	14	24	129*	174			Sholapur	
·285	·228	·191	·234	−·050	61	22	13	32	−2	1·3	1·9	1·6	+0·1	1	3	3	3	1	2	6	20	17	N. 71° W.	N. 67° W.	57	27	228*	149			Poona	
·191	·375	·428	·333	+·041	37	34	27	33	−4	1·8	1·7	1·8	+0·3	1	4	6	7	4	2	5	9	18	N. 42° W.	N. 14° W.	30	23	124*	98			Akola	
·155	·160	·130	·148	−·129	25	16	10	17	−17	1·6	2·1	1·9	+0·1		13	3	6	2	1		13	18	N. 32° W.	N. 17° W.	54	27	186*	147	Nil	Nil	Buldana	
·161	·229¶	·205	·198	−·109	34	22¶	14	23	−17	1·0	2·2	1·6	+0·2	5	3	11	8	5		2	5	17	N. 3° E.	N. 14° W.	32	31	117	93			Khandwa	
·255	·303	·304	·287	−·050	44	30	21	32	−10	2·4	3·4	2·9	+1·0	13	5	10	6	3	1	7	7	4	N. 3° E.	N. 42° E.	12	22	134	123			Nagpur	
·267	287	·285	·280		47	27	19	31		1·1	2·5	1·8				20		13		12		11	N. 59° E.		14		51*				Do. (Sanitary Commr.'s Office).	
·452	·446	·360	·419	−·018	67	38	24	43	−7	1·0	2·3	1·7	+0·4	34		3	2	7	2	1	6	1	S. 20° E.	S. 50° E.	9	29	77*	97			Hyderabad (Deccan).	
·458	·554	·620	·544	−·057	66	62	63	64	−4	1·4	1·6	1·5	+0·3		12	8	4	2			5	25	N. 19° W.	N. 3° W.	64	58	229	254			Bombay	West Coast.
·624	·666	·710	·667	+·018	92	66	61	73	+1	0·6	0·5	0·6	+0·1		2	2	1		1	2	21	27	N. 63° W.	N. 53° W.	78	69	108	86			Karwar	

‖ Mean of 22 days. ¶ Mean of 26 days. * Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 6

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 daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
South India.	Periyakulam		29·084	28·925	·159	29·004			94·4	65·7	28·7	98·4	57·6	40·8	83·6	92·5	79·6		63·2	72·0	71·0	68·7
	Salem		·101	·930	·171	·020	−·018	29·885	96·8	68·8	28·0	99·5	65·1	34·4	84·3	94·4	81·2	+3·6	66·4	72·1	73·0	70·5
	Chitaldroog		27·606	27·472	·134	27·534	−·015	·818	93·3	68·9	24·4	97·0	63·5	33·5	83·9	90·8	80·5	+3·5	57·3	65·3	66·0	62·9
	Bangalore		·033	26·904	·129	26·968	−·007	·839	89·5	62·2	27·3	92·6	56·9	35·7	79·0	87·6	75·4	+3·5	57·2	64·9	64·4	62·2
	Hassan		26·967	·843	·124	·904	−·004	·838	89·5	58·7	30·8	92·6	53·2	39·4	80·2	87·3	73·6	+2·6	55·9	62·8	62·3	60·3
	Mysore		27·519	27·373	·146	27·446	−·011	·845	91·4	65·1	26·3	94·0	58·6	35·4	79·7	90·0	77·9	+3·1	59·3	65·8	64·9	63·3
	Madras		30·023	29·902	·128	29·956	−·012	·909	87·7	69·1	18·6	89·7	66·2	23·5	83·6	84·1	77·9	+0·8		74·4	75·0	73·3
	Bellary		28·5.1	28·373	·148	28·442	−·025	·835	97·8	69·7	28·1	101·0	64·2	36·8	86·5	95·0	83·8	+4·1	58·4	65·1	67·0	63·5
	Waltair		29·801	29·674	·127	29·738		·906	85·5	72·1	13·4	87·0	66·4	20·6	81·8	81·7	77·9		67·0	72·9	74·0	71·3
Hill Station, Baluchistan.	Quetta		24·703	24·631	·072	24·660	+·018		52·5	32·8	19·7	69·4	18·3	51·1	43·7	49·9	42·0	+0·9	30·7	39·0	42·6	37·4
Hill Stations, Northern India.	Leh		19·650	19·578	·072	19·620	+·028		29·2	9·5	19·7	41·5	1·0	40·5	19·7	26·5	20·0	−1·4	7·0	12·8	16·9	12·2
	Srinagar		24·979	24·910	·069	24·938	+·003		45·3	30·3	15·0	56·0	16·6	39·4	36·8	42·3	37·3	+4·1	29·7	35·2	41·3	35·4
	Kailang	10,087	20·923	20·850	·073	20·892	P		32·9	13·9	19·0	39·1	4·0	35·1	24·2	28·1	20·8	+0·4	12·7	20·7	23·7	19·0
	Simla (Ridge)		23·115	23·065	·050	23·083	+·006		46·9	35·5	11·4	53·3	30·5	22·8	42·5	43·7	39·8	−1·2	31·3	35·0	38·0	34·8
	Chakrata		·295†	·246	·049	·263†	−·001		50·5	35·7†	14·8	59·3	30·6	28·7	42·6†	44·7	41·0†	−1·3	32·9†	37·4†	39·5	36·6
	Ranikhet		24·137	24·068	·069	24·091	+·004		54·9	41·1	13·8	61·4	31·1	30·3	49·7	52·2	46·7	−0·4	37·5	42·6	44·0	41·4
	Muktesar		22·856	22·791	·065	22·824			51·3	36·1	15·2	61·1	28·7	32·4	45·6	47·2	42·7		32·5	38·7	40·0	37·1
	Katmandu	4,388	25·666	25·550	·116	25·604	P		68·7	40·2	28·5	71·9	35·0	36·9	55·1	64·0	53·3	+0·6	39·0	49·7	53·5	47·4
	Darjeeling		23·006	22·938	·068	22·967	+·023		49·7	35·5	14·2	57·2	32·6	24·6	43·0	46·1	41·7	+1·0	34·7	40·3	42·5	39·2
Hill Stations, Central India.	Mount Abu		26·131	26·054	·077	26·083	−·021		69·4	54·7	14·7	75·3	49·9	25·4	65·1	67·1	61·4	+1·1	44·0	48·7	50·4	47·7
	Pachmarhi		·549	·450	·099	·493	−·009		79·1	52·5	26·6	83·9	47·5	36·4	71·8‖	77·7	65·3	+2·9	44·9	53·5‖	55·7	51·4
	Chikalda	3,642	·436	·332	·104	·378	−·010		81·7	61·6	20·1	86·2	55·3	30·9	73·2	80·5	71·1	+3·4	49·9	54·6	57·9	54·1
Hill Stations, S. India.	Wellington		24·325	24·248	·077	24·287	+·007		74·3	48·3	26·0	77·2	42·0	35·2	69·4	76·3	60·3	+2·4	45·4	55·1	58·3	52·9
	Kodaikanal		22·916	22·846	·070	22·875			67·0	48·8	18·2	70·8	45·2	25·6	63·2	60·6	52·5		40·5	49·4	52·8	47·6
Extra India.	Aden		29·949	29·832	·117	29·883	−·022	·910	81·2	75·6	5·6	84·8	72·7	12·1	78·5	80·3	78·4	+1·5	70·7	72·8	72·5	72·0
	Perim		·806	·687	·119	·739	−·002	·874	83·2	74·8	8·4	85·7	71·8	13·9	79·2	80·8	78·4	+0·2	71·1	73·5	73·7	73·8
	Minicoy		·961	·849	·112	·900		·833	86·1			87·5			84·4	83·8				76·5	76·3	
	Zanzibar		·933	·807	·126	·870	+·025	·869	88·0	80·6	7·4	91·2	77·0	14·2	84·3	87·6	84·2	+0·8	75·9	78·8	79·4	78·9
	Port Victoria (Seychelles).	15	·973	·880	·093	·927	−·002	·866	83·6	75·9	7·7	85·5	72·5	13·0	82·0	83·3	79·7	−0·5	73·8	77·3	77·7	76·3
	Mauritius (Pamplemousses).	181				·772	+·019	·899				91·2	67·2	24·0			79·5	+1·1				

† Mean of 27 days. ‡ Mean of 25 days. § Mean of 24 days. ‖ Mean of 26 days.

II—*continued.*

Stations in India, Burma, etc., for February, 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.											Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Number of winds from																		
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
																									%	%						
·554	·645	·471	·557		87	56	31	58		1·0	2·2	1·6		7	1	4	13	13	11	2	3		S. 49° E.		49		64*				Periyakulam ¶	South India.
·618	·632	·535	·595	+·032	88	53	33	58	0	0·9	1·6	1·3	−0·7	13		15	15	4	3	3	2	1	N. 82° E.	E	43	51	103*	128			Salem.	
·330	·393	·331	·351	+·019	47	34	23	35	− 2	1·2	2·1	1·7	+0·2		3	6	17	10	3	5	7	5	S. 79° E.	N. 89° E.	25	48	114*	170			Chitaldroog.	
·415	·454	·336	·402	+·006	74	46	26	49	− 3	0·6	1·1	0·9	−1·0		1	6	22	13	6	4	3	1	S. 67° E.	S. 69° E.	55	65	168*	105			Bangalore.	
·420	·372	·277	·356	−·025	84	36	21	47	− 5	2·2	3·4	2·8	0			10	15	21	5	2	2	1	S. 68° E.	S. 85° E.	62	67	57*	77			Hassan.	
·439	·468	·305	·403	−·017	70	46	22	46	− 5	2·1	3·8	3·0	+1·6		2	10	10	12	8	5	1	2	S. 70° E.	N. 87° E.	48	67	167*	201			Mysore.	
	·732	·751	·757	+·078		63	64	79	+ 5	3·0	1·3	2·2	−0·6			2	18	30	6				S. 57° E.	S. 85° E.	85	69	106	119			Madras.	
·354	·355	·313	·341	−·048	49	28	19	32	− 8	1·9	3·4	2·7	+1·3	5	3	1	9	6	12	9	6	5	S. 7° W.	S. 57° E.	28	47	116*	92			Bellary.	
·597	·693	·740	·677		75	64	68	69		2·0	1·8	1·9					3	8	3	37	5		S. 33° W.		73		133				Waltair.	
·155	·195	·203	·184	+·018	81	69	58	69	+ 3	4·1	5·6	4·9	+0·7	18	1		2	2	3	2	11	17	N. 71° W.	N. 83° W.	39	31	56*	88			Quetta.	Hill Station, Baluchistan.
·042	·030	·037	·036	−·040	62	28	25	38	−30	6·0	6·8	6·4	−0·4		3	11	11	3	8	9	11		S. 32° E.	S	12	23	31	29			Leh.	
·159	·191	·245	·198	+·042	92	85	85	87	+ 7	7·5	6·7	7·1	+0·3	22	3	1	2	8	3		6	11	N. 62° W.	S. 24° E.	11	13	83*	74			Srinagar.	Hill Stations, Northern India.
·072	·087	·096	·085	−·007	84	65	62	70	− 3	6·7	7·5	7·1	+0·6			1		2	4	17	24	8	S. 74° W.	S. 72° W.	73	66	17	27	2·19	0·85	Kailang.	
·136	·128	·173	·146	−·006	67	48	62	59	−1	5·9	7·5	6·7	+1·0	13	6	8	2	2	18	4			S. 30° E.	S. 20° E.	22	22	81*	131			Simla (Ridge).**	
·150†	·172†	·191	·174	+·011	76†	61†	65	68	+ 5	5·6†	5·9	5·8	+1·1	10	12	2	5	8	9	4	1	3	S. 74° E.	S. 20° W.	11	2	201†	134			Chakrata.	
·190	·202	·207	·200	+·004	74	57	53	61	− 1	4·5	5·5	5·0	+0·5	16	4	5	2	5		7	11	6	N. 74° W.	S. 51° W.	21	20	54*	57			Ranikhet.	
·150	·167	·176	·164		71	55	56	61		4·0	5·0	4·5		9		3	2	16	3	7	2	14	S. 11° W.		12		116*				Muktesar.	
·226	·297	·292	·272	+·023	89	68	49	69	+ 3	1·7	3·9	2·8	−0·7		1	1	12	7		4	28	3	S. 76° W.	N. 86° W.	28	48	26	29	1·07	0·56	Katmandu.	
·190‡	·223	·237	·217	+·006	91‡	81	76	83	+ 3	4·2‡	5·0§	4·6	−1·3	7		1	4	9	2	18	9	6	S. 43° W.	S. 79° W.	39	31	168*	137			Darjeeling.	
·168	·158	·177	·168	−·020	40	26	27	31	− 5	2·0	1·9	2·0	−0·6		13	7	1	4		15	6	9	N. 55° W.	N. 63° W.	31	27	172*	140			Mount Abu.	Hill Stations, Central India.
·215	·202‖	·192	·203	−·044	54	26‖	20	33	−12	2·3	2·9	2·6	+0·5	9	11	4	2	3	1	3	9	14	N. 37° W.	N. 64° W.	41	25	122*	98			Pachmarhi.	
·226	·215	·224	·222	−·053	41	26	21	30	−11	0·9	1·8	1·4	−0·4	51	11				1	3	3	7	N. 38° W.	N. 83° W.	29	24	183*	148	*Nil*	*Nil*	Chikalda.	
·278	·289	·366	·311	+·021	30	41	50	57	− 2	2·3	2·9	2·6	0			4	4	34	9	4		1	S. 40° E.	S. 39° E.	75	65	58	60			Wellington.	Hill Stations, S. India.
·176	·215	·325	·239		51	38	62	50		2·5	5·0	3·8			4	1	14	29	3		1	4	S. 63° E.		62		169				Kodaikanal.	
·689	·728	·695	·704	+·052	78	75	67	73	+ 2	7·0	2·6	4·8	+0·9			13	38	4	1				N. 84° E.	N. 87° E.	89	73	420†	356			Aden.	Extra India.
·715	·752	·743	·737	+·043	83	75	70	76	+ 4	5·6	3·1	4·4	+2·0	8	1	16	5	15	6			5	S. 88° E.	S. 64° E.	41	73	421*	430			Perim.	
	·809	·811				68	70			2·0	2·0	2·0			29	23						4	N 16° E		89		119*				Minicoy.	
·835	·911	·895	·880	+·026	80	77	69	75	0	6·0	4·8	5·4	+1·4		16	9	8	7	5	3	7	1	N. 41° E.	N. 34° E.	27	63	130*	159			Zanzibar.	
·808	·885	·879	·857	+·043	90	80	77	82	+ 4	5·8	6·3	6·6	+0·1	4	8	5	6	3	1	1	4	24	N. 22° W.	N. 27° W.	48	56	140	145	13·15	2·50	Port Victoria (Seychelles).	
			·794					80	+ 3																		185	269	4·79	1·18	Mauritius (Pamplemousses).	

* Corrected. ¶ Wind variable 2 ** Wind variable 1.

G. I. C. P. O.—No. 6 Meteor.—15-6-1900.—385.

Reg. No. 124 Wr., India - Mar 99 - 5,000

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 „	

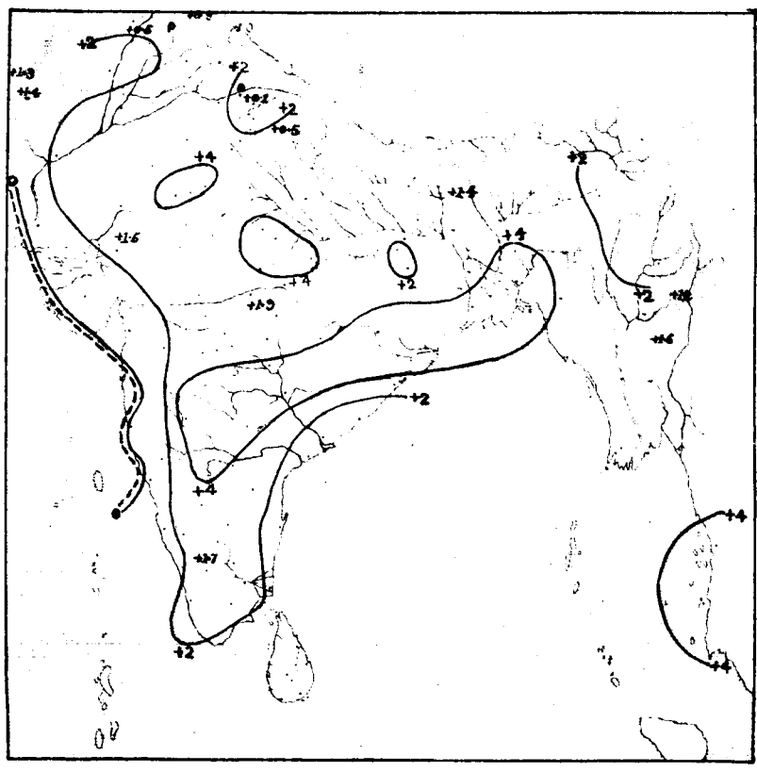
LITHO BY J. M. [illegible]

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 the amounts indicated by the attached umbers. Double lines are the lines of no variation. the broken line facing e 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 the 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.

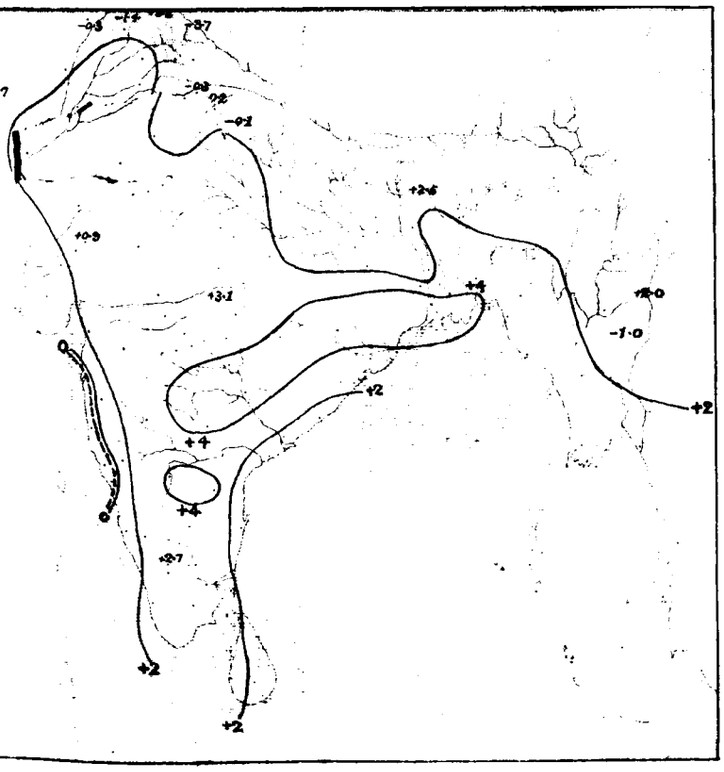
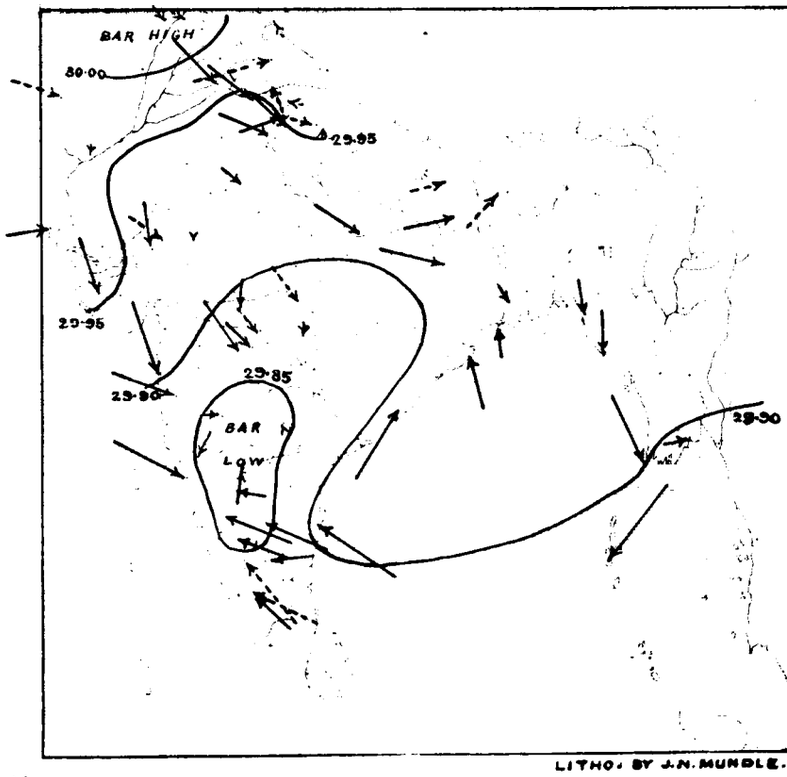


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF FEBRUARY 1900.

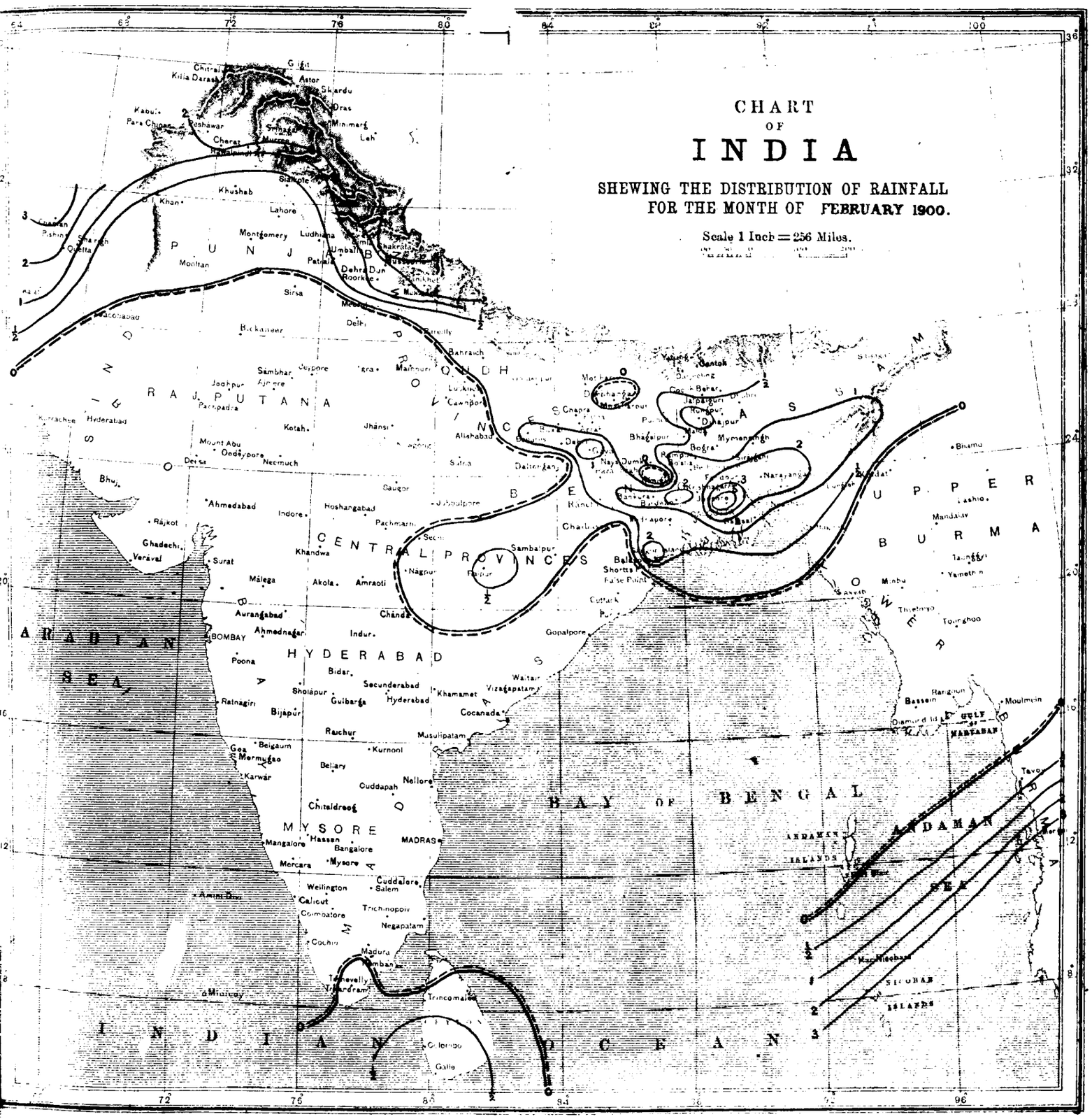


LITHO: BY J.N. MUNDLE.

Explanation.

ntinuous lines indicate that the mean daily temperature of month as in excess by amounts indicated by the attached numbers. Broken dotted lines that it was in defect by the amounts indicated by the tached numbers. Double lines are the lines of no variation, the broken e facing the area of deficient temperature

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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



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 (182 in number), except those at the Hill Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those 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 variations of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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. North Western Provinces, East
19. South Oudh
20. North do.
21. North Western 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. North Punjab
32. West do.
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
47. Sind
48 Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. East Coast, North
52(a). Do. do. (a)
53. Hyderabad, South
54. Madras, Central
55. East Coast, Central
56. East Coast, South
57. Madras, South

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METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, MARCH 1900.

INTRODUCTION.

THIS review of the weather in India during the month of March 1900 is based on observations taken daily at 8 A.M. at 219 stations, and on additional observations taken at 8 A.M. and 4 P.M. at 66 stations. In the rainfall summary the rainfall data of the meteorological observatories and the weekly rainfall telegrams received during the month from District Officers throughout India, 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 given.

Summary of the chief features of the weather in India during the month of March, 1900.

The following is a brief resumé of the chief features of the meteorology of India during March 1900.

At the commencement of the month the mean temperature was high in the north-west and low in the north-east of India and a shallow low pressure area was shown extending from Sind to the North-Western Provinces. This depression concentrated somewhat during the next 24 hours and then on the 3rd advanced eastward to the foot of the Simla and Mussooree Hills and passed into the hills during the 4th. The area of most excessive temperature advanced eastward with the low pressure area, as is shown by the following comparative temperature data for Sind, the Punjab, Rajputana, Central India and the North-Western Provinces for the 1st to the 4th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st March.	2nd March.	3rd March.	4th March.
	°	°	°	°
Sind	+6·0	+5·7	+4·4	+1·7
Punjab	+5·0	+7·2	+4·4	+3·3
Rajputana	+5·5	+8·8	+6·4	+3·9
Central India	+1·6	+5·0	+6·3	+4·7
North-Western Provinces and Oudh.	+1·0	+3·2	+6·6	+6·5

The depression was accompanied by rain and snow over the plains and hills of North-West India on the 3rd and 4th and as a result there occurred a brisk fall of temperature in the extreme north-west of India and a feeble cold wave appeared in the North Punjab on the 6th. This wave advanced slowly across Northern India, as is shown by the following data from the 6th to the 10th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	6th March.	7th March.	8th March.	9th March.	10th March.
	°	°	°	°	°
Punjab	+0·4	−0·5	−1·3	+1·1	+2·9
North-Western Provinces and Oudh.	+3·6	+0·4	−1·8	−2·6	−1·0
Rajputana	+2·5	+1·2	+0·7	−0·3	+3·1
Central India	+2·6	−0·7	−1·3	−3·4	−1·6
Central Provinces	+3·2	+3·0	+1·4	−1·0	+0·4
Bihar	+3·5	+2·5	−1·5	−3·9	−3·4
Chota Nagpur	+6·2	+4·1	+0·9	−1·2	+0·7
Bengal	+4·2	+3·6	+0·5	−2·4	−2·6
Assam	+0·4	+2·5	+0·8	−2·1	−2·1

The wave never affected the weather to the south of the Central Provinces and high temperatures prevailed continuously over the Peninsula, more particularly over the Deccan districts. The following gives comparative temperature data for the Deccan districts from the 6th to the 10th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	6th March.	7th March.	8th March.	9th March.	10th March.
	°	°	°	°	°
Bombay Deccan	+2·7	+2·9	+2·9	+2·9	+3·8
Madras Deccan	+7·9	+5·9	+6·9	+5·9	+3·5
Mysore	+5·4	+3·2	+4·5	+3·7	+2·5

On the 9th the western margin of the cold wave commenced to pass away from North-Western India and a brisk rise of temperature occurred in Baluchistan and the Punjab. This continued and the wave of heat extended eastward and southward and held steadily over Baluchistan and North-Western India including the Punjab, Rajputana, Sind, Gujarat and Central India for ten days until the 19th. The following variation data for each alternate day from the 9th to the 19th illustrate these conditions:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	9th March.	11th March.	13th March.	15th March.	17th March.	19th March.
	°	°	°	°	°	°
Baluchistan	+9·4	+11·9	+12·7	+10·8	+16·2	+12·6
Punjab	+1·1	+4·6	+7·9	+10·4	+12·1	+6·4
Rajputana	−0·3	+4·6	+6·9	+8·5	+6·9	+9·2
Sind	+3·6	+5·8	+8·0	+6·6	+7·3	+6·7
Gujarat	+4·2	+6·6	+6·4	+4·1	+1·4	+2·8
Central India	−3·4	−0·4	+1·8	+4·9	+4·9	+6·6

The air was very dry during the continuance of these high temperature conditions. The following gives examples of the very low humidities registered during these ten days:—

Station.	Date.	Hour.	Lowest Humidity recorded during period 9th to 19th March.
			%
Jamnagar	9th March	4 P.M.	4
Buldana	" "	10 A.M.	4
Deesa	" "	4 P.M.	4
Buldana	10th "	10 A.M.	3
Deesa	" "	4 P.M.	4
Jamnagar	11th "	"	4
Buldana	" "	10 A.M.	5
Deesa	" "	4 P.M.	4
Leh	" "	"	0
Jamnagar	12th "	"	3
Buldana	" "	"	3
Deesa	" "	"	5
Akola	13th "	"	5
Buldana	" "	"	3
Deesa	" "	"	4
Chitaldroog	" "	"	5
Poona	14th "	"	4
Akola	" "	"	4
Buldana	" "	"	0
Deesa	" "	"	2
Bellary	" "	10 A.M.	5
Buldana	15th "	"	3
Deesa	" "	4 P.M.	4
Belgaum	16th "	"	6
Buldana	" "	"	5
Belgaum	17th "	10 A.M.	5
Poona	" "	4 P.M.	5

In the mean time in North-East India the changes in the weather were very interesting. Between the 9th and the 11th occasional storms and showers helped to keep temperature low in this region, but on the 11th the wind changed to the northward at the head of the Bay and on the 12th the showers ceased. Temperature consequently commenced to rise in the north-east from this cause and at the same time the high temperatures prevailing over North-West India advanced eastward down the Gangetic Plain. As a result temperature changed quickly in Assam and Bengal and on the 14th was generally above the normal over this area. Showerless hot weather continued over this region until the 17th when thunderstorms recommenced in Assam and North Bengal, reducing temperature to below the normal. The following gives temperature variation data for each alternate day from the 9th to the 19th for the different divisions of North-East India :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	9th March.	11th March.	13th March.	15th March.	17th March.	19th March.
	°	°	°	°	°	°
Assam . . .	−2·1	−1·6	+0·8	+3·0	−0·7	−2·9
Bengal . . .	−2·4	−1·3	−0·6	+2·4	+2·8	+0·9
Orissa	−0·5	−0·9	−2·7	+0·9	+2·2	+2·1
Bihar	−3·9	−2·2	−0·9	+2·7	+4·1	+3·2
Chota Nagpur . .	−1·2	−0·6	+0·5	+5·3	+6·1	+6·6

On the 13th and 14th the barometer began to give way briskly over the Persian area, Afghanistan and North-West India and a depression which was apparently developed over North-West India was shown over the western desert. This depression lasted until the 19th when it apparently filled up. It changed its position very little from day to day, but pressure in other parts of the Indian area changed considerably so that the conditions prevailing around the depression area altered considerably. The storm occasioned light snow in Kashmir on the 17th and rain over Kashmir and the Punjab hills and plains on the 18th and this resulted in a brisk fall of temperature in the extreme north-west. On the 20th, a feeble cold wave appeared over Baluchistan and the West Punjab and this wave travelled eastward along the line of the hills practically disappearing on the 24th. The following variation data illustrate this advance :—

Date.	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.
		°
20th March . .	Quetta	−1·2
" " . .	D. I. Khan	−4·8
" " . .	Peshawar	−8·4
" " . .	Murree.	−4·7
21st March . .	Rawalpindi	−8·2
" " . .	Murree	−13·9
" " . .	Sialkot.	−5·7
22nd " . .	Rawalpindi	−4·7
" " . .	Murree.	−6·1
" " . .	Sialkot.	−3·1
23rd " . .	Sialkot.	−4·5
" " . .	Ludhiana	−4·4
" " . .	Roorkee	−4·7
24th " . .	Dehra Dun	−0·9
" " . .	Roorkee	−1·8
" " . .	Bareilly	−0·6

In North-East India thunderstorms and thundershowers of varying degrees of intensity prevailed from the 20th to the end of the month and the mean temperature of Bengal and Assam was generally below the normal during that period. The following gives variation data for each alternate day from the 20th to the 31st showing the changes of temperature during that interval :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	20th March.	22nd March.	24th March.	26th March.	28th March.	30th March.
	°	°	°	°	°	°
Bengal . . .	+1·7	−0·2	+0·9	+0·3	+1·0	−0·6
Assam . . .	−4·6	−3·7	−1·4	−0·5	+2·4	−1·6

When the fall of temperature commenced in the extreme north-west on the 19th and 20th, the area of greatest excess of temperature was transferred southward to the more central districts, and the greatest excess of temperature was reported from the South Gangetic Plain,

the central parts of India and Chota Nagpur from the 20th to the 25th. The following gives data in illustration :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	20th March.	21st March.	22nd March.	23rd March.	24th March.	25th March.
	°	°	°	°	°	°
South Gangetic Plain .	+5·9	+7·2	+2·5	+0·1	−1·2	+0·7
Central India . .	+6·5	+5·0	+0·9	+1·4	+1·4	+0·6
Central Provinces .	+4·7	+4·1	+2·5	+3·1	+5·0	+0·2
Berar	+5·2	+0·9	+1·2	+3·7	+5·1	+5·8
Chota Nagpur . .	+6·6	+7·5	+4·1	+2·5	+2·8	+4·4

About this time a shallow low pressure area appeared over the central parts of the Peninsula, drawing the wind into the north-westward over the west of the Peninsula and apparently occasioning slightly unsettled weather in parts of Bombay. As a consequence, the mean temperature fell over the west of the Peninsula and was lower than usual from the 19th to the close of the month. The following table gives variation data for the Bombay districts for each alternate day from the 19th to the 31st :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	19th March.	21st March.	23rd March.	25th March.	27th March.	29th March.	31st March.
	°	°	°	°	°	°	°
West Coast . .	+0·2	−1·3	−0·7	−1·7	−1·2	−1·0	+0·3
Bombay Deccan .	+1·0	−1·9	+1·7	−0·9	+0·8	+2·4	+0·1

On the 25th an area of excessive temperature appeared over the western desert and on the next day a small depression was shown near Jacobabad where the mean temperature was 8° above the normal. This area of excessive heat advanced during the 26th, 27th and 28th east-north-eastward through Sind, Rajputana and the Punjab, as is shown by the following data :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	26th March.	27th March.	28th March.
	°	°	°
Sind	+4·4	+3·6	+2·5
Rajputana	+2·7	+4·8	+4·1
Punjab	+3·8	+5·2	+3·0

The depression was accompanied with light showers over Baluchistan, the North-Western Himalayas and the Submontane Punjab on the 26th and 27th, and on the 28th the temperature was falling quickly over Baluchistan and the West Punjab and on the 29th a feeble area of slightly lower temperature than usual was shown over Baluchistan and the West Punjab. The following gives comparative temperature data for Quetta, Chaman, Mooltan, D. I. Khan and Peshawar for the 28th and 29th :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
28th March .	Quetta . . .	−2·5	−3·3	−2·9
	Chaman . .	−6·5	−1·8	−4·2
	Mooltan . .	+0·8	−2·4	−[illegible]
	D. I. Khan . .	−4·8	−6·3	−5·6
	Peshawar . .	−2·0	+5·9	+2·0
29th " . .	Quetta . . .	+0·1	−3·4	−1·7
	Chaman . .	−2·9	+1·9	−0·5
	Mooltan . .	−0·2	−0·6	−0·4
	D. I. Khan . .	−1·5	−3·3	−2·4
	Peshawar .	−2·2	+3·1	+0·5

On the 30th temperature was rising again in Baluchistan and the Punjab and the heat again became slightly excessive generally over North-Western India.

Pressure.—The mean pressure of the Indian area was ·006 inch above the normal. Pressure was generally below the normal over Northern India and above over the centre and south and in Burma. Pressure was, relatively to the general condition, in slight defect over parts of the Punjab, North-West Rajputana and Upper Sind, as well as locally at Lucknow and Patna and was in very slight defect in other parts of Northern India. Pressure was in slight local excess in three areas, *viz.*, (1) part of Kathiawar, (2) part of the west of Central India and of the Central Provinces and Berar and (3) part of the west and south of the Peninsula. The range of pressure was very small and the principal characteristic was general uniformity. Pressure was in excess at all the hill stations. Positive vertical pressure anomalies were shown in the Northern India hill districts and negative vertical anomalies in the central hill districts. The

following gives the mean pressure variations and anomalies of the month of the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A.M. pressure of March 1900.	Pressure anomaly, March 1900.
	"	"
Burma Coast and Bay Islands	+·010	+·004
Burma Inland	+·008	+·002
Assam	+·012	+·006
Bengal and Orissa	+·002	—·004
Gangetic Plain and Chota Nagpur	—·005	—·011
Upper Sub-Himalayas	—·007	—·013
Indus Valley and North-West Rajputana	—·010	—·016
East Rajputana, Central India and Gujarat	+·011	+·005
Deccan	+·012	+·006
West Coast	+·023	+·017
South India	+·014	+·008

Temperature.—The weather was finer and more settled than usual all over the country except parts of the north-east. The snowfall in the Himalayan area was also less than usual generally. These conditions gave rise to higher temperatures than usual in most places.

The mean maximum or day temperature of the month was lower than usual in three areas. The first included parts of Assam, East Bengal and Upper Burma, the deficiency being largest at Sibsagar (—2°·0) and Jessore (—1°·9). The second included part of Deltaic Burma, the largest deficiency being at Diamond Island (—1°·2). The third area included the West Coast districts and the deficiency in this case was largest at Mormugao (—1°·5).

Over the whole of the remainder of India and Burma, the mean maximum temperature of the month was more or less excessive. The excess was more than 4° in amount at the following stations :—

PROVINCE.	STATION.	MEAN MAXIMUM TEMPERATURE. Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
		°	°	°
BALUCHISTAN	Chaman	73·7	66·7	+7·0
	Quetta	70·5	64·5	+6·0
NORTH-WEST INDIA.	Jacobabad	98·5	91·1	+7·4
	Khushab	87·0	79·8	+7·2
NORTH-WEST INDIA.	Lahore	89·7	83·7	+6·0
	Sialkot	87·4	81·8	+5·6
	Montgomery	90·9	85·3	+5·6
	Sambhar	93·7	88·2	+5·5
	Hyderabad (Sind).	98·5	93·3	+5·2
	Mainpuri	94·5	89·3	+5·2
	Mooltan	91·3	86·3	+5·0
	Umballa	88·3	83·4	+4·9
	Bikaner	94·3	89·4	+4·9
	Jaipur	94·7	90·0	+4·7
	Cawnpore	94·6	89·9	+4·7
	Meerut	91·4	86·9	+4·5
	Lucknow	95·6	91·4	+4·2
	Bahraich	92·4	88·3	+4·1

The highest maximum temperatures of the month were recorded in the first week of the month in Madras and about the middle of the month in North-Western India. The following gives the readings exceeding 108° :—

Station.	Highest maximum temperature recorded in March 1900.	Date on which recorded.	Highest maximum temperature recorded in March previous to 1900.	Year in which recorded.
	°		°	
Cuddapah	108·8	6th March	110·3	1893
Jacobabad	108·4	15th and 16th March.	111·8	1892
Surat	108·1	12th and 13th March.	110·1	1892

The mean minimum or night temperatures were below the normal average along the West Coast of the Peninsula and at a few stations in the north-east. The deficiency was more than 1° at Karwar (—2°·1) Mormugao (—1°·1) and Dhubri (—1°·6). Over the whole of the remainder of India, as well as in Burma and Baluchistan, the mean

minimum temperature was in excess. The excess was more than 4° in amount at the following stations :—

Station.	Mean minimum temperature. Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
Chaman	50·3	42·8	+7·5
Ajmer	66·0	59·2	+6·8
Jhansi	71·6	65·5	+6·1
Delhi	67·0	62·1	+4·9
Jacobabad	64·3	59·4	+4·9
Bikaner	67·8	63·1	+4·7
Agra	67·2	62·8	+4·4
Sambhar	63·5	59·3	+4·2
Rawalpindi	54·5	50·4	+4·1

The lowest night temperatures were generally recorded during the first ten days of the month, but they were in no way remarkable and at most of the northern hill stations the mean minimum temperature exceeded the average.

The mean temperature of the month was normal or in slight defect in part of North-East India where Dhubri reported a deficiency of 1°·5, Berhampore of 1°·2 and Sibsagar of 1°·0, and along the West Coast where Karwar reported a deficiency of 1°·5 and Mormugao of 1°·3. In all other places the mean temperature was in excess. The excess was 4° or more in the following divisions:—

Province.	Mean daily temperature. Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
North-Western Provinces Central	80·2	76·1	+4·1
Central Punjab	73·9	69·2	+4·7
Punjab Submontane	74·0	70·0	+4·0
Baluchistan Hills	57·8	52·1	+5·7
Rajputana East and Central India West.	80·6	76·4	+4·2
West Rajputana	81·3	76·5	+4·8

The following table gives temperature variation data for the month of March 1900 for eleven meteorological provinces of the Empire :—

Meteorological Province.	Variation of actual from normal of: Mean maximum temperature, March 1900.	Mean minimum temperature. March 1900.	Mean daily temperature, March 1900.
	°	°	°
Burma Coast and Bay Islands	+0·1	+2·2	+1·2
Burma Inland	−0·1	+1·2	+0·6
Assam	−1·7	−0·8	−1·3
Bengal and Orissa	+0·9	+1·4	+1·2
Gangetic Plain and Chota Nagpur	+3·0	+1·7	+2·3
Upper Sub-Himalayas	+4·1	+3·0	+3·6
Indus Valley and North-West Rajputana.	+4·6	+3·2	+3·9
East Rajputana, Central India and Gujarat.	+3·0	+3·3	+3·2
Deccan	+2·7	+2·0	+2·4
West Coast	−0·1	+0·2	+0·1
South India	+2·3	+1·8	+2·1

Winds.—The winds were about normal in direction, but stronger than usual in Burma. They were generally of about the normal strength and steadiness in Northern India. The wind was steadier, stronger and more westerly than usual in the Bombay Deccan, Berar and the Central Provinces while it was more southerly and more unsteady than usual in the Madras divisions. At Zanzibar the wind was less easterly and at the Seychelles less westerly than usual, while at both stations the steadiness and velocity were about the average.

Humidity.—The air was drier than usual over by far the greater part of the country. The relative dryness was greatest and considerable within a broad band which ran north and south between Ludhiana and Hyderabad (Deccan). The following gives the variations in the absolute and relative humidities at the stations within this band :—

Station.	Absolute Humidity. Actual, March 1900.	Normal, March	Variation of actual from normal, March 1900.	Relative Humidity. Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Ludhiana	·309	·364	−·055	40	54	−14
Roorkee	·274	·328	−·054	37	49	−12
Jaipur	·277	·305	−·028	27	37	−10
Nagpur	·255	·355	−·100	21	34	−13
Khandwa	·220	·302	−·082	19	31	−12
Buldana	·183	·282	−·099	17	28	−11

At two stations on the plains the relative humidity was

higher than usual, the first being Deesa and the second Madras. In both cases the excess was small. In all other places the air was drier than usual. The following table gives variation data of the mean aqueous vapour pressure and mean humidity for nine meteorological provinces for the month under review :—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, March 1900.	Variation of actual from normal, March 1900.	Average actual, March 1900.	Variation of actual from normal, March 1900.
	"	"	%	
Burma coast and Bay Islands	·779	+·013	70	−1
Bengal and Orissa	·770	+·041	73	−2
Gangetic Plain and Chota Nagpur	·357	−·007	39	−4
Upper Sub-Himalayas	·314	−·026	40	−10
Indus Valley and North-West Rajputana.	·455	+·048	52	−1
East Rajputana, Central India and Gujarat.	·279	−·024	29	−5
Deccan	·280	−·066	26	−8
West Coast	·696	−·037	70	−3
South India	·488	−·025	46	−5

Cloud.—There was somewhat more cloud than usual over the hills and plains of the Punjab and in the South Deccan and considerably more cloudiness than usual over the east of the Bay area where Akyab reported an excess of 1·8 and Port Blair of 1·3. Over nearly the whole of the remainder of India there was less cloud than usual, the deficiency having been greatest over South-West Rajputana, Sind, Bihar, Chota Nagpur and Mysore. The sky was practically cloudless at Darbhanga, Jamnagar, Akola, Karwar and Bangalore. The following table gives variation data of the mean cloud amount of nine meteorological provinces for the month of March 1900 :—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, March 1900.	Variation of actual from normal, March 1900.
Burma Coast and Bay Islands	3·2	+0·7
Bengal and Orissa	3·3	+0·2
Gangetic Plain and Chota Nagpur	1·0	−1·0
Upper Sub-Himalayas	3·2	0
Indus Valley and North-West Rajputana	3·0	−0·5
East Rajputana, Central India and Gujarat	1·9	−0·8
Deccan	1·8	−0·3
West Coast	1·2	−0·4
South India	2·0	−0·6

Rainfall.—The rainfall of the month under review was actually or practically *nil* (*i.e.*, was less than one-tenth of an inch) over the greater part of North-West India, the whole of the central parts of the country, Bihar, the greater part of the Peninsula and about half of Burma. It was between one-tenth of an inch and one inch over the greater part of the plains of the Punjab, the sub-montane districts of the North-Western Provinces, Chota Nagpur, the east of the Central Provinces, and Upper Burma, the south of the Nizam's diminions and the extreme south of the Peninsula, while moderate to heavy rain was received over Baluchistan, the North-West Himalayas, Kashmir, parts of Bengal, Assam, Tenasserim and West Ceylon. The rainfall was heavy over Assam and particularly over the Khasia and Jaintia Hills and thence westward into the Mymensing district of Bengal, over which area the total rainfall of the month exceeded ten inches. The total rainfall of the month exceeded the normal average over the three divisions of Assam, the Bengal Hills, Orissa, the Bombay Deccan and the Jaipur division of the east coast, but was below the normal in all other divisions, and in most cases by large amounts relatively to the average. The following gives comparative rainfall data of the month for the eleven meteorological provinces of the Empire :—

METEOROLOGICAL PROVINCE.	RAINFALL.			
	Mean actual for March 1900.	Mean normal for March.	Variation of actual from normal, March 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	0·70	0·65	+0·04	+106
Burma Inland	0·34	0·41	−0·07	−17
Assam	6·98	5·24	+1·74	+33
Bengal and Orissa	1·25	1·52	−0·27	−18
Gangetic Plain and Chota Nagpur	0·07	0·50	−0·46*	−92
Upper Sub-Himalayas	0·32	0·89	−0·58*	−65
Indus Valley and North-West Rajputana.	0·17	0·42	−0·24	−57
East Rajputana, Central India and Gujarat.	0·02	0·15	−0·13	−87
Deccan	0·13	0·48	−0·34*	−71
West Coast	0·27	0·51	−0·25	−49
South India	0·05	0·53	−0·47*	−89

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

Atmospheric Pressure.

The mean pressure of the Indian land area was 0·006 inch above the normal. The pressure was generally below the normal over Northern India and above over the central parts of the country, the Peninsula and Burma. The local anomalies were generally small or very small in amount. The local deficiency exceeded 0·02 inch only at the following few stations for which data are given below :—

STATION.	Variation from normal of mean 8 A.M. pressure of March 1900.	Pressure anomaly, March 1900.
	"	"
Delhi	—·018	—·024
D. I. Khan	—·017	—·023
Mooltan	—·017	—·023
Bikaner	—·017	—·023
Jacobabad	—·016	—·022
Lucknow	—·015	—·021
Patna	—·015	—·021

Pressure was locally in excess all over Gujarat, the central parts of the country and the Peninsula. The local variations were +0·02″ or above in the three following areas :—

	STATION.	Variation from normal of mean 8 A.M. pressure of March 1900.	Pressure anomaly, March 1900.
		"	"
FIRST AREA	Veraval	+·027	+·021
SECOND AREA	Neemuch	+·037	+·031
	Amraoti	+·030	+·024
	Indore	+·028	+·022
	Akola	+·027	+·021
	Khandwa	+·026	+·020
THIRD AREA	Tinnevelly	+·037	+·031
	Karwar	+·030	+·024
	Goa	+·026	+·020

The total range of pressure over the Indian land area was 0·131″.

Pressure on the mean of the month was higher than usual at all the hill stations in India. At the hill stations in the central parts of the country the excess was less than that shown by the stations on the plains, while, on the contrary, the hill stations in Northern India exhibited an excess at the same time that the stations on the neighbouring plains exhibited a deficiency. Hence, while over the northern hill districts the vertical pressure anomalies were positive, the reverse was the case in the central hill region. The following gives data of the vertical pressure anomalies as determined from the pressure variations of ten pairs of stations in India and Baluchistan :—

HILL STATION.	Variation of actual from normal pressure, March 1900.	PLAIN STATION.	Variation of actual from normal pressure, March 1900.	Vertical pressure anomaly, (Hill-Plain).
	"		"	"
Leh	+·063	Lahore	—·007	+·070
Quetta	+·037	Jacobabad	—·016	+·053
Murree	+·036	Peshawar	—·011	+·047
Simla	+·039	Ludhiana	—·010	+·049
Chakrata	+·045	Roorkee	—·009	+·054
Ranikhet	+·034	Bareilly	—·006	+·040
Darjeeling	+·047	Dhubri	+·007	+·040
Mount Abu	+·008	Deesa	+·014	—·006
Pachmarhi	+·017	Hoshangabad	+·028	—·011
Wellington	+·011	Coimbatore	+·010	+·001

The following is a summary of the chief abnormal features of the mean pressure conditions of the month :—

(1) The mean pressure of the Indian area was very slightly above the normal.

(2) Pressure was locally in defect over Northern India and the head of the Bay. The deficiency was slight over the western desert and the South Punjab and was very small elsewhere.

(3) Pressure was locally in excess over Gujarat, the central parts of the country and the Peninsula.

(4) The vertical pressure anomalies were positive and ranged in amount between ·04″ and ·07″ over the Northern India hills districts.

Barometric depressions and cyclonic storms of the month.

The weather was less disturbed than usual during March 1900, except in Assam during the middle of the month when thunderstorms were frequent and rather severe.

There were only three barometric depressions during the month and they were of very slight intensity and only occasioned slightly disturbed weather and light rainfall over North-West India. In the countries to the westward of India also conditions were generally quiet and it is not clear that any direct relation existed between the barometric depressions noticed over North-West India and the barometric changes noticed over the Persian area.

Depression of the 1st to the 4th.—On the 1st presure was rising slightly over the Punjab and was steady over the Peninsula, but elsewhere the barometer was giving way generally and at several central stations briskly. A shallow depression area extended east and west between Sind and the North-Western Provinces. The following gives data for the depression area :—

Station.	Pressure.			Wind.				Weather.
	8 A.M. reduced to sea level and constant gravity at lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"					
Dera Ismail Khan	29·896	+·022	—·092	Calm	1	0		
Mooltan	·883	+·051	—·093	Calm	2	4		
Khushab	·900	+·013	—·084	Calm	1	0		
Montgomery	·868	+·030	—·095	ENE	8	1		
Sirsa	·839	—·041	—·101	NE	3	5		
Delhi	·842	—·066	—·095	NW	2	2		
Meerut	·854	—·020	—·081	Calm	2	2		
Agra	·836	—·067	—·105	SE	5	9		
Mainpuri	·849	—·030	—·102	Calm	2	8		
Bahraich	·827	—·036	—·100	E	2	0		
Cawnpore	·848	—·016	—·096	Calm	2	2		
Allahabad	·857	—·061	—·078	Calm	3	1		
Sutna	·879	—·084	—·075	W	2	0		
Nowgong	·876	—·071	—·080	SW	1	4		
Jhansi	·869	—·070	—·086	S	1	2		
Jaipur	·882	—·068	—·078	WNW	3	6		
Ajmer	·879	—·091	—·090	W	8	2		
Bikaner	·838	—·043	—·150?	WNW	6	6		
Kurrachee	·889	—·046	—·075	W	11	6		
Hyderabad	·842	—·037	—·107	SW	8	8		
Jacobabad	·800	—·049	—·156	Calm	1	9		

The above shows that pressure was in large defect over the western desert; but that there was very little cloud and that the winds were light and irregular. There had been a trifling fall of rain at Simla and over the Kashmir Himalayas. The following gives details :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inch.
KASHMIR	Dras	1st March	0·50
"	Sri Ranbir Singh Pora	"	0·50
"	Sopore	"	0·45
"	Haripore	"	0·35
"	Iskardo	"	0·15
SIMLA	Simla	"	0·01

March 2nd.—Pressure had increased a little over the Peninsula and Burma, but had decreased elsewhere. The decrease had been greatest and brisk over the Punjab, Rajputana and Sind and the depression over the western desert had developed. The following gives data for the depression area :—

Station.	Pressure.			Wind.				Weather.
	8 A.M. reduced to sea level and constant gravity at lat. 45°	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"					
Khushab	29·836	—·064	—·120	N	10	6		
Dera Ismail Khan	·883	—·013	—·097	NW	3	7		
Montgomery	·803	—·065	—·149	NNE	6	2		
Mooltan	·817	—·066	—·158	NNE	2	0		
Sirsa	·764	—·075	—·167	SE	4	2		
Meerut	·807	—·047	—·121	Calm	2	8		
Delhi	·815	—·027	—·114	Calm	1	8		
Agra	·819	—·017	—·119	Calm	4	0		
Sambhar	·816	—·059	—·106	Calm	2	4		
Jaipur	·820	—·062	—·104	ENE	4	5		
Ajmer	·806	—·073	—·148	W	8	0		
Bikaner	·748	—·090	—·229?	SSW	5	4		
Kurrachee	·839	—·050	—·121	WSW	14	0		
Hyderabad	·791	—·051	—·155	W	10	1		
Jacobabad	·737	—·063	—·213	NW	4	7		

Pressure was now in very large defect in the central area but the depression itself had not moved. The winds were cyclonic around the centre and a strongish current from north prevailed from the Himalayas across the Punjab. Drizzling rain had commenced at Srinagar, Murree and Cherat but rain had ceased in other parts of Kashmir.

March 3rd.—Pressure had decreased briskly in Kashmir and had increased briskly to rapidly over the western desert and the depression had moved eastward at the same time becoming much slighter. The following gives data for the depression area:—

Station.	Pressure.			Wind.				Weather.
	8 A.M. reduced to sea level and constant gravity at Lat 45°	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"				Inch.	
Lahore	29·820	−·006	−·124	E	6	0		
Montgomery	·843	+·040	−·119	NNE	12	0		
Ludhiana	·795	−·018	−·135	NNE	4	0		
Umballa	·794	−·008	−·106	E	5	0	0·07	Showery
Sirsa	·781	+·017	−·156	NE	7	0		
Delhi	·787	−·028	−·144	E	6	3		
Meerut	·783	−·024	−·134	SE	2	0		
Roorkee	·808	−·019	−·110	SE	3	6	0·03	Thunderstorm.
Agra	·795	−·024	−·138	SW	5	0		
Mainpuri	·795	−·029	−·131	WSW	2	6		
Lucknow	·800	−·020	−·122	S	1	0		
Cawnpore	·793	−·024	−·131	SSE	0	0		
Allahabad	·805	−·024	−·126	SSW	3	0		
Bareilly	·823	+·012	−·084	Calm	1	3		
Bahraich	·789	−·018	−·115	E	2	1		

The greatest deficiency of pressure was reported from Sirsa and the depression extended from Ludhiana and Sirsa south-eastward as far as Lucknow and Cawnpore. The winds were very irregular, but were moderately strong in force. The sky was overcast and snow was falling at the higher stations in Kashmir.

March 4th:—Pressure had increased over the whole of North-Western and Central India. The depression had continued to drift eastward and only its southern and was shown over the submontane districts of the North-Western Provinces. The following gives data for this neighbourhood.

Station.	Pressure.			Wind.				Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"					
Lucknow	29·795	−·005	−·132	Calm	1	0		
Cawnpore	·851	+·058	−·070	Calm	2	0		
Allahabad	·847	+·042	−·089	Calm	5	0		Dust haze
Benares	·849	+·045	−·081	Calm	2	10		
Gorakhpur	·848	+·005	−·064	ESE	1	4		
Bahraich	·797	+·008	−·097	E	2	1		
Mainpuri	·856	+·061	−·058	Calm	2	8		
Bareilly	·864	+·041	−·052	Calm	3	7		
Darbhanga	·847	−·019	−·073	ESE	3	0		
Patna	·860	+·020	−·070	N	2	0		

The above shows that the depression was rapidly disappearing. Anti-cyclonic conditions were being established over North-Western India.

High pressure conditions with fine weather and light winds prevailed over North-Western and Central India from the 4th to the 12th after which date a change gradually commenced. On the 13th the barometer began to fall briskly to rapidly over the whole of the Persian, Baluchistan and North-West India area. The following gives the pressure changes recorded on the three days 12th, 13th and 14th at the Persian stations, the Kashmir stations as well as at Mooltan, Bikaner, Sirsa, Jaipur and Kashgar.

Station.	Barometric change during 24 hours preceding 8 A.M. of		
	12th March.	13th March.	14th March.
	"	"	"
Baghdad	−·019	−·101	+·160
Teheran	+·100	−·100	−·200
Ispahan	+·050	−·080	−·150
Bushire	+·014	−·061	−·119
Jask	+·006	−·052	−·220
Kashgar	−·110	−·299	+·299
Srinagar	−·020	−·102	−·156

Station.	Barometric change during 24 hours preceding 8 A.M. of 12th March.	13th March.	14th March.
	"	"	"
Skardu	+·019	—·190	—·159
Dras	+·007	—·149	—·140
Leh	+·014	—·171	—·142
Mooltan	—·087	—·123	—·193
Bikaner	—·041	—·116	—·162
Sirsa	—·040	—·127	—·146
Jaipur	—·043	—·120	—·149

The above observations apparently show that no depression advanced across Persia and Baluchistan, but that the depression apparently originated over the western desert. The initiation of the depression was apparently associated with very large pressure changes over a very large area, and if the observations at Kashgar be correct these changes were largest in Central Asia.

March 13th.—The barometer was falling briskly to rapidly over North-West India and pressure was lowest, relatively to the normal, at Mooltan and Dera Ismail Khan. The following gives data for Baluchistan, Sind, the South Punjab and Western Rajputana:—

Province or District.	Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Weather.
		"	"	"				
Baluchistan	Chaman	...	—·039	+·138	ESE	2	0	
	Quetta	...	—·070	+·160	Calm	1	1	
Sind	Jacobabad	29·946	—·090	+·048	Calm	3	0	
	Hyderabad	·931	—·104	+·021	Calm	4	0	
	Kurrachee	·962	—·087	+·030	Calm	5	0	
South-Punjab	Sirsa	·931	—·127	+·023	SW	3	0	
	Patiala	·974	—·066	...	Calm	3	0	
West Rajputana	Bikaner	·943	—·116	+·040	WSW	3	0	
West Punjab	Mooltan	·928	—·123	—·004	SE	1	0	
	Dera Ismail Khan	·939	—·107	—·004	Calm	1	5	
	Montgomery	·935	—·109	+·021	S	5	2	
South-East Punjab	Delhi	·932	—·111	+·022	NW	2	2	

The above shows fine weather, light variable wind sand higher pressures than usual over nearly the whole of North-Western India.

March 14th.—The barometer had fallen over the whole Indian area, the fall having been very rapid over Baluchistan, Kashmir and North-West India. The following gives data for this area:—

Station.	Pressure. 8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather
	"	"	"					
Chaman	...	—·165	—·018	ESE	2	0		
Quetta	...	—·158	+·010	Calm	1	1		
Srinagar	...	—·156	+·016	Calm	2	0		
Skardu	...	—·159	...	ENE	4	0		
Dras	...	—·140	...	Calm	0	0		
Leh	...	—·142	...	E	2	1		
Murree	...	—·121	+·015	SE	3	0		
Peshawar	29·826	—·183	—·158	Calm	1	0		
Rawalpindi	·772	—·227	—·163	Calm	3	0		
Sialkot	·764	—·189	—·130	ESE	0	0		
Ludhiana	·776	—·172	—·122	Calm	1	3		
Lahore	·763	—·184	—·137	Calm	1	0		
Sirsa	·785	—·146	—·126	SE	2	0		
Montgomery	·788	—·147	—·109?	S	5	0		
Khushab	·779	—·180	—·106?	Calm	2	0		
Dera Ismail Khan	·739	—·200	—·190	Calm	1	0		
Mooltan	·735	—·193	—·186	Calm	1	0		
Jacobabad	·753	—·193	—·136	Calm	1	0		
Hyderabad	·763	—·168	—·139	SSW	7	0		
Kurrachee	·794	—·168	—·132	Calm	5	0		
Mainpuri	·771	—·178	—·104	W	2	0		
Bareilly	·765	—·181	—·112	Calm	2	0		
Agra	·775	—·171	—·114	NW	3	0		
Jhansi	·800	—·174	—·103	W	3	0		
Meerut	·767	—·171	—·120	W	2	0		
Roorkee	·775	—·183	—·117	Calm	2	0		
Dehra-Dun	·784	—·180	—·108	W	3	0		

The above shows that a shallow depression had been developed with its central area lying over the Mooltan and

Dera Ismail Khan districts. The winds were very light over the Punjab but were drawing into cyclonic directions, but the weather remained fine and the humidities were low. The heat was very great, compared with the normal, in the north-west, more particularly at the level of the hill stations. The following gives comparative data for Quetta, Chaman, Cherat, Murree and Simla:—

Station.	Variation from normal of		
	Maximum temperature 14th March.	Minimum temperature 14th March.	Mean temperature 14th March.
	°	°	°
Quetta	+14·0	...	...
Chaman	+17·9	+12·3	+15·1
Cherat	+18·8	+11·3	+15·1
Murree	+13·2	+13·8	+13·5
Simla	+11·9	+12·1	+12·0

March 15th.—The barometer had continued to fall briskly to rapidly over the western desert, but elsewhere the decrease had slackened. The depression had spread eastward and southward and become considerably larger. The following gives data for the depression area:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours			
	"	"	"					
Rawalpindi	29·731	—·041	—·197	Calm	2	4		
Sialkot	·736	—·028	—·150	Calm	0	0		
Khushab	·728	—·051	—·137?	ENE	3	0		
Dera Ismail Khan.	·722	—·017	—·198	NNE	2	4		
Mooltan	·692	—·043	—·220	Calm	1	2		
Montgomery	·685	—·103	—·205	SE	6	2		
Lahore	·719	—·044	—·172	SE	1	0		
Ludhiana	·719	—·057	—·160	Calm	1	0		
Delhi	·729	—·043	—·151	NW	4	0		
Sirsa	·706	—·079	—·194	SE	3	0		
Bikaner	731	—·030	—·141	SSW	10	0		
Hyderabad (Sind).	·699	—·064	—·198	SW	12	0		
Jacobabad	·686	—·067	—·194	Calm	2	2		

The above shows that the depression had increased both in size and intensity. The centre had apparently moved very little, the greatest deficiency of pressure continuing to be reported from Mooltan. The winds were blowing from cyclonic directions and were increasing in strength. The weather, however, remained fine. The heat was very excessive both on the hills and plains.

March 16th:—There had occurred a falling off in the process of development of the depression. The barometer had only fallen slightly over North-West India and the depression was altogether less well defined and less distinct than on the preceding day. The following gives data for the depression area:—

Station.	Pressure.			Wind.		Cloud	Rainfall.	Weather
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"					
Kurrachee	29·730	—.044	—·188	W	13	3		
Hyderabad	·681	—·018	—·214	SSW	17	6		
Jacobabad	·672	—·014	—·210	ESE	3	2		
Bikaner	·692	—·039l	—·171?	SSW	8	0		
Delhi	·701	—·028	—·169	W	3	0		
Sirsa	·681	—·025	—·198	SW	4	4		
Montgomery	·662	—·023	—·222	SE	5	2		
Mooltan	·667	—·025	—·244	Calm	1	2		
D. I. Khan	·691	—·031	—·224	NNE	4	6		
Peshawar	·741	—·057	—·209	Calm	1	8		
Rawalpindi	·694	—·037	—·231	Calm	2	8		
Khushab	·698	—·030	—·158?	ENE	8	2		
Sialkot	·699	—·037	—·182	NNE	0	0		
Lahore	·683	—·036	—·205	Calm	2	0		
Ludhiana	·699	—·020	—·180	SE	1	6		

The greatest deficiency of pressure continued to be reported from Mooltan and the winds were irregularly cyclonic over the Punjab, but the weather was fine and quiet and the low pressure area was exercising no important effect on the weather. The heat within the depression area was very excessive.

March 17th.—The next day showed a further though slight barometric fall over Baluchistan, Upper Sind and the West Punjab and a recovery elsewhere. As a

consequence the depression had again increased in definiteness. The following gives 8 A.M. data for the depression area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Chaman .		—·051	—·157	NE	7	7	0·08	
Quetta . .		—·021	—·125	Calm	4	6		
Jacobabad .	29·665	—·007	—·212	SSE	5	8		
Hyderabad .	·687	+·006	—·204	SSW	14	0		
Mooltan . .	·651	—·016	—·252	S	3	10		
D. I. Khan .	·630	—·061	—·287	Calm	3	10		
Peshawar .	·713	—·028	—·245	Calm	2	9		
Cherat . .		—·054	—·113	S	6	10		
Murree . .		—·018	—·048	SE	11	10		
Rawalpindi .	·694	0	—·205	Calm	3	10		
Sialkot . .	·698	—·001	—·175	E	1	0		
Khushab .	·671	—·027	—·183	NNE	4	10		
Lahore . .	·690	+·007	—·195	E	3	10		
Montgomery .	·673	+·011	—·208	S	6	6		

Pressure was now over one quarter of an inch below the normal at Mooltan and an irregular cyclonic circulation of the winds was shown around that centre. The weather had become much more cloudy and rain had commenced at Chaman. The heat was very excessive at Chaman, Quetta and Cherat, as is shown below :—

Station.	Variation from normal of		
	Maximum temperature 17th March.	Minimum temperature 17th March.	Mean temperature 17th March.
	°	°	°
Chaman	+18·4	+14·4	+16·4
Quetta	+17·4	+14·6	+16·0
Cherat	+17·0	+16·0	+16·5

March 18th.—A very rapid recovery of pressure had occurred over the Punjab and the depression area had been transferred southward and eastward. The following gives 8 A.M. data for the depression area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Hyderabad (Sind).	29·747	+·060	—·139	S	10	8		
Jacobabad .	·719	+·054	—·157	SE	5	7		
Mooltan .	·771	+·120	—·141	NE	6	0		
Montgomery .	·750	+·077	—·138	NE	14	4		
D. I. Khan .	·861	+·231	—·064	NNE	5	0		
Khushab .	·841	+·170	—·014?	NE	19	7	0·04	
Lahore . .	·790	+·100	—·101	NE	6	10		
Ludhiana .	·779	+·040	—·092	N	3	7	0·02	
Sirsa . .	·736	+·026	—·144	SE	5	3		
Bikaner . .	·699	—·033	—·142	SSW	9	6		
Ajmer . .	·782	—·011	—·117	W	9	4		
Jaipur . .	·812	—·017	—·088	Calm	3	0		

The greatest deficiency of pressure was shown at Jacobabad, Sirsa and Bikaner and steep baric gradients prevailed both to the north and south of that central area. Fresh to strong north-easterly winds prevailed over the Punjab and rain and snow were falling among the Kashmir Himalayas. The mean temperature had decreased at the hill stations but the heat was more than 12° above the normal at the following stations :—

Station.	Variation from normal of		
	Maximum temperature 18th March.	Minimum temperature 18th March.	Mean temperature 18th March.
	°	°	°
Jacobabad	+14·1	+12·3	+13·2
Chaman	+10·0	+15·9	+13·0
Montgomery	+12·3	+13·3	+12·8
Quetta	+10·3	+14·3	+12·3

March 19th.—Pressure had decreased everywhere. The change had been slight within the depression area while it had been brisk to rapid in the North Punjab and over North-East India. As a result the intensity of the storm

had considerably diminished. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles past 24 hours.	Cloud.	Rainfall.	Weather
	"	"	"					
Peshawar .	29·824	—·109	—·156	Calm	1	10		
Dera Ismail Khan.	·797	—·064	—·128	WSW	4	10		
Khushab .	·795	—·046	—·048	Calm	10	8		
Lahore . .	·753	—·037	—·140	Calm	3	10		
Montgomery .	·737	—·013	—·158	ENE	11	10		
Mooltan .	·762	—·009	—·151	Calm	3	0		
Jacobabad .	·700	—·019	—·177	E	7	10		
Hyderabad .	·727	—·020	—·158	SSW	9	5		
Sirsa . .	·741	+·005	—·143	NE	8	1		
Bikaner .	·697	—·002	—·143	NNW	8	0		
Ajmer . .	·753	—·029	—·144	SW	11	5		

The lowest pressures continued to be reported from Jacobabad, Sirsa and Bikaner, but the storm was now unimportant. The weather, however, was still cloudy and there had been further snow in Kashmir and showers on the outer Himalayas and in the submontane districts of Upper India.

March 20th.—Pressure was increasing in Sind, but was generally decreasing elsewhere. The depression had almost disappeared, but the weather was still unsettled with cloudy, overcast skies and a good deal of rain.

Between the 21st and the 25th of March the weather was comparatively quiet over the Indian area. Pressure was generally low over North Bihar and high over the west of the Peninsula and westerly to north-westerly winds prevailed except on the Bay coasts and in Bengal where the winds varied between south and east. On the 25th the barometer was falling briskly to slightly over North-West India and Baluchistan and the next morning a depression was shown near Jacobabad.

March 26th.—The barometer had been steady over Upper Sind and the South-West Punjab, but had risen in all other parts of the Indian region as well as in Baluchistan. Following on these changes a depression appeared near Jacobabad. So far as can be judged this depression had developed in this position. There had been a brisk fall of the barometer at Muscat on the 24th followed by rain on the 25th, but there was no evidence of the depression having advanced from the westward. The following gives 8 A.M. data for the Punjab, Sind, Baluchistan and Western Rajputana :—

	Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Pressure. Direction at 8 A.M.	Wind. Average hourly velocity in miles past 24 hours.	Cloud.	Rainfall.	Weather.
		"	"	"					
Punjab.	Umballa .	29·875	+·122	+·015	Calm	5	5	Inch.	
	Ludhiana .	·856	+·049	+·030	Calm	2	8		
	Lahore .	·866	+·057	+·036	Calm	2	10		
	Sialkot .	888	+·055	+·074	Calm	1	3		
	Rawalpindi .	·877	+·054	+·044	SW	3	8		
	Peshawar .	·957	+·070	+·033	Calm	1	10		
	Khushab .	·897	+·070	+·031	Calm	3	6		
	Montgomery	·868	+·053	+·036	SSE	6	6		
	D. I. Khan	·886	+·043	+·027	N	2	5		
	Mooltan .	·836	+·001	—·019	NE	2	10		
Sind.	Jacobabad .	·792	—·008	—·026	SSE	5	2		
	Hyderabad	·834	+·017	+·002	SW	11	1		
	Kurrachee .	·898	+·031	+·025	WNW	12	0		
Baluchistan.	Chaman .	...	+·049	+·014	NNW	9	9	0·09	Showery.
	Quetta .	...	+·020	+·034	Calm	3	10	0·29	Showery.
West Rajputana.	Bikaner .	·867	+·043	+·012	SSW	3	6		
	Jodhpur .	·902	+·064	...	WSW	2	6		

The above shows that pressure was in slight defect in the depression area and in excess elsewhere. The winds exhibited an irregular cyclonic circulation and there had been a little rain in Baluchistan. Temperature was in considerable to large excess in the depression area, as is shown below :—

Province or Division.	Station.	Variation from normal of: Maximum temperature 26th March.	Minimum temperature 26th March.	Mean temperature 26th March.
		°	°	°
Punjab . .	Lahore . . .	+3·3	+2·7	+3·0
	Sialkot . . .	+3·4	+3·6	+3·5
	Peshawar . . .	+4·0	+6·9	+5·5
	Montgomery . .	+4·8	+9·4	+7·1
	Dera Ismail Khan .	+1·1	+8·6	+4·9
	Mooltan . . .	+5·1	+7·0	+6·1
Sind . . .	Jacobabad . .	+6·2	+9·8	+8·0
	Hyderabad .	+2·0	+4·8	+3·4
Baluchistan .	Quetta . . .	+6·9	+6·7	+6·8
	Chaman . . .	+9·0	+3·4	+6·2

March 27th.—Pressure had increased everywhere, more particularly in the Punjab, and the depression had practically filled up.

From the 27th to the close of the month the area of lowest pressure was established over Bihar and northerly to westerly winds prevailed over Northern India with fine quiet weather.

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 gives a statement of the information relating to the snowfall of the month of March 1900 in the Afghan and Himalayan Mountain regions.

Southern Waziristan.—The Political Officer Wana, sends the following report:—"On the 1st there was a fall of rain which was accompanied by a heavy fall of snow on the highest (11,000 feet) peaks of Marwattai.

From the 25th to the 27th and again between the 29th and the 31st rain fell on the Wana plain and was accompanied with light snow. On the Marwattai Hills snow fell to a depth of about 3 inches.

Almost all the snow has melted (31st March) off the sunny slopes except on the highest peaks of Marwattai where it lies to about the depth of 2 inches.

The snowfall this year has been much heavier than in previous years."

II.—KASHMIR AND PUNJAB HIMALAYAS.

Murree.—On the Murree hills there was a fall of one inch of snow on the 3rd of March. In Kahuta there was no snow

Killa Drosh.—On the 20th there occurred a slight snowfall at night on the tops of the highest mountains, and on the 27th there occurred another slight fall also on the mountain tops only.

Leh.—Snow fell as under:—

March 4th	1 inch.
„ 6th	a sprinkle.
„ 17th	1¼ inches.

In the middle of March there was still 10 to 12 inches of snow at about 12,500 feet.

Kailang.—The Rev. F. Peton reports that on March 3rd there was a heavy snowfall, and on March 20th there was a thunderstorm accompanied with a little snow.

On the 31st March snow was lying on the surrounding hills even on the sunny side down to an elevation of about 11,000 or 12,000 feet and on the Rotang Pass there was more snow than usual. The snowfall of the whole winter was believed to be below the average.

Chamba.—The following report has been sent in by the Deputy Conservator of Forests for the period March 1st to April 12th.

Snow fell as under:—

Barmaur, 6,500 feet—	
4th March	7 inches.
5th Do.	3 inches.
Olansa, 6,500 feet—	
4th March	5 inches.
5th March	3 inches.
Kalatop, 8,000 feet—	
9th April	4 inches.
10th April	5 inches.

On the 9th and 10th of April snow fell all over the district down to about 6,500 feet.

In Chamba, that is in the Ravi Valley, there was no snow at the end of March below 9,000 feet in the forests. The Padri Pass is reported to have 2 feet of snow on it. There was no snow lying on March 31st at any of the recording stations. The general opinion is that the snowfall of this year is similar to that of 1894.

Kulu.—The Assistant Commissioner, Kulu, reports as follows:—

Rain fell on the 2nd, 3rd, 4th, 5th, 16th, 19th, 20th, and 21st in the Kulu Tahsil and on 3rd, 4th, 5th, 6th, 18th, 19th, 20th, 21st, and 22nd, in the Plach Tahsil.

There were light falls of snow on these days on the high peaks and passes of the sub-division. The snowfall in the month under report was the same as in March 1898.

The following table gives the reported depth of snow

on the higher passes of the sub-division at the end of the month under review and a comparison with the three preceding years :—

TAHSIL.	NAME OF PASS.	Height above sea-level in feet.	DEPTH OF SNOW AT THE END OF			
			March 1900.	March 1899.	March 1898.	March 1897.
		Feet.	Feet.	Feet.	Feet.	Feet.
KULU	Rotang	13,000	25	11	10	12
	Hamta	14,500	8	8	6	14½
	Chander Khani	?	8	7	3	8
	Bujadhar	?	5½	3½	3½	7
	Lohri Achri	?	6	7	3	11
	Bhubhu	10,000	5	5	2	5
PLACH	Srikhand	15,000	14	9	9	18
	Chul	?	3	2	3	4
	Maghin	?	4	3	3	4
	Tikar	?	5	3	...	4
	Dundku	?	6	3	3	6
	Nohnu	?	2	...	...	2
	Jalori	10,500	4	3	4	4
	Raghopur	?	5	3	4	4
	Lambri	?	5	3	3	3
	Sakiran	?	5	3	...	4
	Supakun	?	6	3	4	6
	Basleo	11,000	4	3	4½	4
	Plach	?	7	4	6	6
	Tirath	?	7	4	7	8
	Gargarasan	...	7	6	6	8

Simla.—The Deputy Conservator of Forests, Bashahr Division, reports as follows:—There were falls of snow as under during March :—

3rd March	6	inches down to	8,500	a slight fall
4th "	8	"	8,000	" good fall
6th "	9	"	7,500	" "
18th "	7	"	9,500	" slight fall
19th "	5	"	11,000	" "
20th "	4	"	10,000	" "
21st "	6	"	8,500	" good fall
29th "	6	"	10,000	" slight fall

The above snowfalls extended throughout the Bashahr Division.

There is said to be still a large accumulation of snow on the higher passes. The following gives the estimated depths together with the figures for last March for comparison :

NAME OF PASS.	Depth of snow at the end of March 1900.	Depth of snow at the end of March 1899.
Rupin	12 feet	10 feet
Borenda	10 "	8 "
Bulder into Spitti	12 "	15 "
Harang	6 "	3 "

In most cases the snow accumulation was greater than at the same time last year. The people say that their Kandus or Alpine fields are (31st March) covered with four feet of snow and that for many years such heavy snow has not fallen.

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

Garhwal.—The Deputy Commissioner reports as follows :—

There were falls of snow above the line of perpetual snow on the 18th, 19th and 27th of March. The reported depth of the snowfall was 18 inches. The snowfall during the month under review was unusually great for this time of year.

Almora District.—The following report has been received from the Deputy Commissioner, Almora :—

Malla Danpur.—Snow fell on the following dates :—

2nd March 1900	6 inches
20th " "	12 "
TOTAL	18 inches

This was the depth on the peaks of Pindari, Kaphini and Kantela.

Malla Johar :—Snow fell as follows :—

5th March	4 feet
20th March	6 "
27th March	4 "
Total	14 feet

This was the depth of snow on the well known peak of Utam Dhura. On Ralam Dhura snow fell to a depth of 7 feets.

Byands, Chandans and *Darma.*

2nd March	6 inches
17th "	6 "
20th "	12 "
27th "	12 "
TOTAL	3 feet

The snowfall over the district was greater than in previous years.

Poo.—The Rev. S. Schreve reports as follows of the snowfall during the past winter :—

Snow fell as under :—

January.

5th "	5 inches
14th "	12 "
17th "	very slight
20th to 24th "	24 inches
26th "	2 "
TOTAL	3 feet 7 inches

February		
1st and 2nd	. . .	3 inches
7th	. . .	very light fall
10th and 11th	. . .	5 inches
16th and 17th	. . .	7 "
23rd and 24th	. . .	11 "
	TOTAL	2 feet 2 inches
March		
2nd and 3rd	. . .	12 inches
5th	. . .	2 "
19th and 20th	. . .	? "
		?

On the occasion of the last fall the snow line descended to the bottom of the valley but the snow rapidly melted away.

From the end of January up to the middle of February the depth of snow was about 3 feet. On March 15th the snow line descended to about 11,000 feet and on the 31st of March on hills facing north to 9,500 feet.

There was a good accumulation of snow on the higher mountains. In other years the snow has disappeared by the 31st March from the hill side facing south but in the present year the snow line on southern slopes is down to 4,000 feet. The snow accumulation was hence above the usual amount.

Summary of special Storm Reports.

The month of March 1900 was more disturbed than usual and thunder and hail-storms were more frequent than the average. The following gives a statement of the more important storms in the various provinces of India reported by the meteorological observers :—

18th March:—A violent hail-storm prevailed at Mymensing at night. It came up from north-west, commenced at 9 P.M. and lasted two hours.

20th.—A duststorm with rain passed over Agra at 7-30 P.M.

A local storm occasioning rain and sleet passed over Srinagar, when snow fell on the adjacent hills.

25th.—A thunderstorm passed over Srinagar at night. The storm commenced at midnight and passed to north-north-east. It lasted 3 hours.

A duststorm passed over Ahmednagar between 1-48 and 2-3 P.M.

A duststorm passed over Saugor between 3-10 P.M. and 3-30 P.M. The wind was strong to a gale.

26th.—A duststorm passed over Cuddapah. The storm commenced at 5 P. M. and ended at 6 P. M.

Strong squally winds prevailed at Srinagar with showers on the adjacent hills.

A violent Nor'wester passed over Burdwan between 7-20 and 7-45 P. M.

A thunderstorm occasioning a severe gale of wind and some drizzling rain occurred at Chanda between 0-56 P. M. and 4-56 P. M.

27th :—A storm passed over Jaipur betwen 6-35 and 6-50 P. M. There were a few drops of rain with a wind pressure of 3.2 lbs.

A duststorm passed over Lahore between 9-30 P.M. and 11 P.M. It appeared in the west and disappeared in the north-west.

28th :—A thunderstorm occurred at Simla between 4 P. M. and 6 P. M. The storm was only slight with little rainfall and the wind velocity low.

30th :—A heavy duststorm was experienced at Sholapur between 5-10 P. M. and 6-33 P. M. with heavy rain.

31st.—A violent duststorm prevailed at Jacobabad from 7 P.M. to 8-30 P.M. It came on from north-west and was followed by rain.

The following report of an earthquake has been received.—

4th.—Slight shocks of earthquake were felt at Kodinor and P rabhaspatan at about 8 A.M. The shock appeared to be moving from south to north. Kodinor is 25 miles and Prabhaspatan only 3 miles from Veraval, both to the eastward. Nothing was felt at Veraval.

The following reports of hail-storms have been received.

9th.—A hail-storm occurred in the Vizagapatam district. It commenced at 5 P.M. and lasted two minutes.

12th.—A hail storm occurred in different parts of the Ratnagiri and Kolaba districts. The stones were from ¼ to 1″ in size.

13th.—A hail-storm occurred in the Rajapur Taluka of Ratnagiri. It was moderately severe and lasted about half an hour.

17th.—A slight hail-storm occurred in Jowai in the Khasia and Jaintia hills in Assam.

A slight hail-storm occurred at Cherrapoonjee. The hail-storm extended over 25 villages

and the average size of the hail-stones was that of an 8-bore bullet.

18th.—A severe hail-storm was experienced over the Sadar and Kategora Tahsils of the Cachar district lasting half an hour.

A severe hail-storm passed over the Mymensing district between 9 P.M. and 11 P.M.

A slight hail-storm occurred over the Mouza and Kachomari Tahsils of the Nowgong district of Assam lasting five minutes.

A slight hail-storm was experienced over the villages of Jogial, Pakhimaria, and Nissahar in the Nowgong district. It lasted five minutes.

Cherrapoonjee and the adjacent villages experienced a slight hail-storm.

The observer at Gantak, Sikkim reports that at 2-15P.M. very heavy rain came on followed by hail. In three hours 5·20 inches of rain fell and the hail-stones were as large as walnuts.

19th.—A slight hail-storm occurred in Deh Lakha Taluka Kambet in Shikarpur collectorate. The storm lasted 15 minutes and the hail-stones were the size of a pea.

20th.—A severe hail-storm passed through the centre of the Alwar State. The storm passed from west to east and damaged the crops of 93 villages. Hail commenced at 4-30 P.M. and lasted about 10 minutes during which a violent wind prevailed. A herd of 30 goats and kids, caught far from shelter, was killed by the hail-stones and six cattle in the Bansur Tahsil died from the effects of the hail.

21st.—A slight hail-storm passed over Kohima, Assam, lasting fifteen minutes.

22nd.—A severe hail-storm was experienced in the Tezpur Tahsil of the Darrang district, Assam. It lasted about 20 minutes.

25th.—A somewhat severe hail-storm travelled from west to east through the Jowai division of Assam lasting from midnight to 2 A.M.

A severe hail-storm traversed parts of the Khasia and Jaintia Hills. The storm came up from west and lasted 3 minutes. The stones were extraordinarily large measuring 2 inches in diameter. Some were as large as an orange.

A moderate hail-storm passed over Jorhat in the Sibsagar district. It lasted about ¼ of an hour and the stones were the size of a pigeon's egg.

In the Nomtidoll Tahsil of Sibsagar a hail-storm was experienced travelling from west to east. The largest stones had a diameter of about 1 inch.

26th.—A severe south-westerly squall followed by copious rain and hail passed over Bishnupore between 6-10 and 6-45 P.M.

28th.—A slight hail-storm was experienced over the northern part of the Jowai division between 3-30 and 4-30 P.M. The stones varied in size from a pea to a little nut.

29th.—Slight hail-storms in Kohima and neighbourhood. Lasted only seven minutes.

31st.—Moderately severe hail-storm attended with thunder for about five minutes occurred at Sirsi town and two miles round about, in the Kanara district. The hail-stones were from a quarter inch to half an inch in diameter.

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

Arabian Sea.—The air movement over this area was very light, being more or less below its normal intensity on no less than 29 days during the month. On the mean of the whole month it averaged 2·5 in force as compared with 3·0 the normal of the period.

Except in the immediate neighbourhood of the coast where winds were controlled by the varying pressure conditions over the land area and were hence unsteady, northerly winds of the dry monsoon obtained generally over the Arabian Sea on most days of the month. They were, as is usually the case in March, much more steady n the first than in the second half of the month.

Weather was fine and quiet throughout the month over the whole area except locally in the south-east where it was slightly disturbed on the 12th.

Bay of Bengal.—Southerly winds of indraught to the heated land area obtained along the Bengal, Orissa and Madras Coasts throughout the month except for a short period from the 8th to 13th when these winds were replaced by northerly breezes due to abnormal pressure conditions over the interior of India. Over the remainder of the Bay the air movement presented no large abnormal features. The mean strength of the winds over the Bay area during the month was identical with the normal, *viz.*,

2·5. Winds were more or less above their normal strength from the 2nd to the 4th, 9th to the 14th, 18th to the 21st and on the 26th, and of normal intensity or lighter than usual during the rest of the month.

Weather was very feebly disturbed in the neighbourhood of Ceylon on the 1st, 2nd and 12th and fine over the remainder of the Bay throughout the month.

Equatorial Belt.—Winds contained a strong northerly component at the Seychelles and a southerly component at Zanzibar. They were, however, of approximately normal strength and steadiness at both these stations. It may be noted that while the rainfall of the month was 51 percent in excess at Zanzibar, it was 26 percent in defect at the Seychelles.

Temperature of the Air.

March 1900 was more disturbed and stormy than the average in North-East India and Assam and the mean temperature in this area was generally lower than usual, but elsewhere the month under review was generally warmer than usual and at different times and particularly in the north-west was characterised by very great heat. Only one important cool wave passed across Northern India and this was succeeded in North-West India by very excessive temperatures.

The mean maximum temperature of the month was lower than usual in three areas but the variations were small and unimportant. The following gives comparative data for these three areas :—

	Station.	Mean maximum temperature.		
		Actual March 1900.	Normal March.	Variation of actual from normal, March 1900.
		°	°	°
First area	Sibsagar	77·2	79·2	—2·0
	Jessore	90·6	92·5	—1·9
	Dhubri	85·2	86 5	—1·3
	Bhamo	87·1	88·3	—1·2
	Kindat	88·9	90·0	—1·1
	Narayanganj	89·7	90·0	—0·3
Second area	Diamond Island	84·5	85·7	—1·2
	Mergui	90·3	91·3	—1·0
	Bassein	94·0	94·3	—0·3
Third area	Mormugao	85·3	86·8	—1·5
	Ratnagiri	86·3	87·7	—1·4
	Veraval	84·8	86·1	—1·3
	Karwar	86·9	87·8	—0·9
	Mangalore	88·7	88·9	—0·2
	Calicut	90·3	90·5	—0·2

There was also a trifling local deficiency at False Point and at Trincomalee.

Over the whole of the remainder of India as well as in Burma and Baluchistan the day temperature on the mean of the month was more or less excessive. The excess was more than 2° in amount over the whole of North-Western and Central India and the inland parts of the Peninsula and was more than 4° in amount over Baluchistan and the greater portion of North-West India. The following table gives comparative data for this large area :—

Province.	Station.	Mean maximum temperature.		
		Actual March 1900.	Normal March	Variation of actual from normal, March 1900.
		°	°	°
Baluchistan	Chaman	73·7	66·7	+7·0
	Quetta	70·5	64·5	+6·0
North-West India.	Jacobabad	98·5	91 1	+7·4
	Khushab	87·0	79·8	+7·2
	Lahore	89·7	83·7	+6·0
	Sialkot	87·4	81·8	+5·6
	Montgomery	90·9	85·3	+5·6
	Sambhar	93·7	88·2	+5 5
	Hyderabad (Sind)	98·5	93·3	+5·2
	Mainpuri	94·5	89·3	+5·2
	Mooltan	91·3	86·3	+5·0
	Umballa	88·3	83·4	+4·9
	Bikaner	94·3	89·4	+4·9
	Jaipur	94·7	90·0	+4·7
	Cawnpore	94·6	89 9	+4·7
	Meerut	91·4	86·9	+4·5
	Lucknow	95·6	91·4	+4·2
	Bahraich	92·4	88·3	+4·1

The excess was hence large over the Central Punjab, over Upper Sind and over Baluchistan.

The highest day temperatures of the month were generally registered during the last week of the month in

Bengal and the North-Western Provinces, between the 14th and 19th in the Punjab, Rajputana and North Bombay; during the last week of the month in the central parts of the country, including the Deccan; on the 13th or 14th along the West Coast, and at the close of the month in Madras. The following gives the absolute maximum at each station where day temperatures exceeding 106° were recorded during the month :—

STATION.	Highest maximum temperature recorded in March 1900.	Date on which recorded.	Highest maximum temperature recorded in March previous to 1900.	Year in which recorded.
	°		°	
Cuddapah . . .	108·8	6th	110·3	1893
Jacobabad . . .	108·4	15th and 16th.	111·8	1892
Surat	108·1	12th and 13th	110·1	1892
Akola	107·7	31st	111·6	1892
Khandwa . . .	107·2	31st	109·7	1892
Chanda	106·7	31st	112·2	1892
Cuttack	106·4	21st and 31st	107·9	1889
Ahmedabad . . .	106·3	13th, 14th and 15th.	108·3	1896, 1899
Hyderabad (Sind) . .	106·2	14th	112·2	1892
Chaibassa . . .	106·1	21st	108·1	1892
Deesa	106·1	14th	114·5	1892

The above shows that there were no remarkable extremes of temperature during the month under review, the highest readings having been considerably exceeded in previous years. The excess in the north-west was, however, a marked feature in the temperature distribution, and the following gives the highest maximum temperatures recorded in the area of greatest excess of temperature in the Punjab, Sind and Baluchistan :—

STATION.		Highest maximum temperature recorded in March 1900.	Date on which recorded.	Highest maximum temperature recorded in March previous to 1900.	Year in which recorded.
		°			
PUNJAB	Montgomery .	103·0	16th and 17th.	106·9	1892
	Lahore . .	101·6	17th	106·3	1892
	Mooltan . .	101·4	16th and 17th.	108·2	1892
	Sirsa . .	101·3	15th	111·4	1892
SIND	Jacobabad .	108·4	15th and 16th.	111·8	1892
	Hyderabad	106·2	14th	112·2	1892
	Kurrachee .	103·4	12th and 13th.	106·3	1892
BALUCHISTAN.	Sharigh . .	92·0	14th	92·0	1899
	Chaman .	85·3	14th	85·3	1899
	Quetta . .	82·1	17th	84·2	1892

The above shows that the maximum temperatures of the whole of India in March 1900 have been frequently exceeded.

The mean maximum temperature of the month was above the normal at all the hill stations, but less largely so than at the stations on the neighbouring plains.

The mean minimum temperature was below the normal average on the mean of the month along the west coast of the Peninsula. The following gives comparative data for this area :—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
Karwar	71·0	73·1	—2·1
Mormugao	74·4	75·5	—1·1
Goa	73·4	74·1	—0·7
Poona	63·6	64·3	—0·7
Ratnagiri	72·0	72·3	—0·3
Bombay	73·3	73·5	—0·2
Mangalore	75·6	75·8	—0·2

The mean minimum temperature was also slightly lower than usual at a few stations in the north-east. The following gives comparative data for these stations :—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
Dhubri	62·9	64·5	—1·6
Dinajpur	60·9	61·5	—0·6
Bhamo	59·8	60·3	—0·5

Over the whole of the remainder of India as well as in Burma and Baluchistan the night temperature, on the mean of the month, exceeded the normal. The distribution resembled in some respects that prevailing in the maximum temperature. The excess was more than 2° in amount over the greater part of North-West India as well as over the central districts of the Central Provinces and the inland parts of the Peninsula, but the area of greatest excess, 4° or more in amount, lay further to the south

in the case of the mean minimum than in the case of the mean maximum temperature, while over Tenasserim and Lower Burma there was a considerable excess in the case of the mean night and a slight deficiency in the case of the mean day temperatures. The following gives comparative data for the stations at which the excess was more than 4° :—

Station.	Mean minimum temperature.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
Chaman	50·3	42·8	+7·5
Ajmer	66·0	59·2	+6·8
Jhansi	71·6	65·5	+6·1
Delhi	67·0	62·1	+4·9
Jacobabad	64·3	59·4	+4·9
Bikaner	67·8	63·1	+4·7
Agra	67·2	62·8	+4·4
Sambhar	63·5	59·3	+4·2
Rawalpindi	54·5	50·4	+4·1

Very high night temperatures were recorded between the 16th and the 20th over North-West India. The following gives data for those stations at which the excess was more than 12°.

Date.	Station.	Minimum temperature		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
16th March	Chaman	61·1	40·7	+20·4
,,	Ajmer	76·1	59·0	+17·1
,,	Sialkot	69·1	55·1	+14·0
,,	Murree	57·9	44·0	+13·9
,,	Delhi	75·6	61·9	+13·7
,,	Bikaner	76·0	63·5	+12·5
17th ,,	Sialkot	72·1	55·4	+16·7
,,	Cherat	64·6	48·6	+16·0
,,	Ajmer	75·1	59·2	+15·9
,,	Lahore	68·9	54·1	+14·8
,,	Quetta	54·4	39·8	+14·6
,,	Chaman	54·1	39·7	+14·4
17th March	Peshawar	66·0	51·6	+14·4
,,	Rawalpindi	64·2	50·2	+14·0
,,	Jacobabad	73·6	59·6	+14·0
,,	Murree	57·4	43·9	+13·5
,,	Mooltan	71·0	58·9	+12·1
18th ,,	Ajmer	77·1	59·0	+18·1
,,	Chaman	55·1	39·2	+15·9
,,	Quetta	54·4	40·1	+14·3
,,	Ludhiana	71·6	57·3	+14·3
,,	Lahore	68·9	54·6	+14·3
,,	Montgomery	70·5	57·2	+13·3
,,	Bikaner	77·0	64·3	+12·7
,,	Jacobabad	72·1	59·8	+12·3
,,	Sirsa	69·1	56·8	+12·3
19th ,,	Ajmer	78·1	59·2	+18·9
,,	Jacobabad	76·6	60·1	+16·5
,,	Quetta	54·9	40·9	+14·0
,,	Chaman	52·1	38·9	+13·2
20th ,,	Ajmer	74·6	59·2	+15·4
,,	Jhansi	80·2	66·5	+13·7
,,	Sambhar	72·9	60·4	+12·5

The mean minimum temperature was lower than usual at Wellington (South India) but was higher than usual at all the other hill stations, the excess being generally similar to that reported on the neighbouring plains. The following gives data for Wellington, Pachmarhi, Darjeeling, Simla and Murree.

Station.	Mean minimum temperature.		
	Actual. March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
Wellington	51·2	52·8	—1·6
Pachmarhi	63·1	60·4	+2·7
Darjeeling	43·2	43·0	+0·2
Simla	47·5	44·5	+3·0
Murree	47·6	43·8	+3·8

The lowest night temperatures in North-Western and Central India were generally reported between the 7th and 10th and on the hills between the 4th and 6th. The

following gives a few of the more important minima recorded but none are in any way remarkable:—

STATION.	Lowest minimum temperature recorded in March 1900.	Date on which recorded.	Lowest minimum temperature recorded in March previous to 1900.	Year in which recorded.
	°		°	
Lahore	46·0	8th	42·0	1898.
Montgomery	46·0	8th	39·5	1898.
Dera Ismail Khan	46·6	7th	38·9	1878.
Khushab	47·3	7th	40·1	1892.
Ludhiana	48·6	8th	40·6	1878, 1898.
Nowgong	51·1	9th	43·1	1880.
Sambhar	51·9	9th	38·0	1898.
Ajmer	52·8	9th	35·9	1898.
Jaipur	53·0	9th	38·2	1898.
Indore	53·1	7th	40·6	1898.
Astor	15·6	6th	11·7	1897.
Simla	35·2	6th	23·4	1898.
Cherat	43·0	3rd and 6th.	25·5	1898.
Pishin	28·0	4th and 6th.	8·9	1898.
Quetta	30·8	4th and 6th.	15·8	1898.

The mean temperature of the month was normal or in slight defect in two areas. The first included Upper Burma, Assam and parts of North and Central Bengal, the second included the West Coast. The following gives data for these two areas:—

	STATION.	MEAN DAILY TEMPERATURE.		
		Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
		°	°	°
FIRST AREA	Dhubri	74·1	75·6	−1·5
	Berhampore	78·3	79·5	−1·2
	Sibsagar	68·7	69·7	−1·0
	Bhamo	73·5	74·4	−0·9
	Kindat	74·9	75·4	−0·5
	Dinajpur	75·2	75·4	−0·2
SECOND AREA	Karwar	79·0	80·5	−1·5
	Mormugao	79·9	81·2	−1·3
	Ratnagiri	79·2	80·1	−0·9
	Mangalore	82·2	82·4	−0·2
	Bombay	79·5	79·6	−0·1

In all other parts of the Indian region, the mean temperature was in excess. The excess was considerable to large over practically the whole of North-Western and Central India and the east and centre of the Peninsula. It exceeded 2° in the following 29 meteorological divisions:—

DIVISION.	MEAN DAILY TEMPERATURE.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
Chota Nagpur	80·6	77·2	+3·4
South Oudh	78·9	76·0	+2·9
North-Western Provinces, Central	80·2	76·1	+4·1
Do. do. West	78·3	74·7	+3·6
Do. do. West Submontane.	73·3	70·6	+2·7
North-Western Provinces, Hills	56·9	54·3	+2·6
South-East Punjab	79·0	75·1	+3·9
South Punjab	75·1	71·7	+3·4
Central Punjab	73·9	69·2	+4·7
Punjab Submontane	74·0	70·0	+4·0
Punjab Hills	47·8	44·6	+3·2
North Punjab	67·7	64·1	+3·6
West Punjab	74·2	70·3	+3·9
Madras South, Central	86·2	83·8	+2·4
Mysore	81·2	79·0	+2·2
Berar	85·8	82·9	+2·9
Central Provinces, West	83·9	81·6	+2·3
Do. do. Central	81·7	79·0	+2·7
Do. do. East	83·9	80·7	+3·2
Gujarat	84·0	81·4	+2·6
Sind	80·9	77·0	+3·9
Baluchistan Hills	57·8	52·1	+5·7
Central India East	79·2	76·5	+2·7
Rajputana East, Central India West	80·6	76·4	+4·2
West Rajputana	81·3	76·5	+4·8
Hyderabad South	87·6	84·7	+2·9
Madras, Central	89·6	86·9	+2·7
East Coast, Central	85·3	83·1	+2·2
Madras, South	85·6	83·4	+2·2

The principal abnormal features in the temperature conditions were as follows:—

(1) The day temperature was in defect and the night temperature about normal over parts of North-East India

and Assam where in consequence the mean temperature of the month was in slight defect.

(2) Both the day and night temperatures and hence also the mean temperature were in defect along the West Coast.

(3) In nearly all other parts of the Indian region both the day and night temperatures and hence also the mean temperature were in excess of the normal.

(4) The excess, both by day and night, was greatest and considerable to large over North-West India.

(5) It is worthy of note that these excessive temperatures accompanied a normal and in places excessive winter snowfall over the North-West Himalayas.

The following table gives comparative data of the month for 55 meteorological divisions of India:—

Province.	Division.	Actual temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	92·9	73·2	83·0	19·7	29·5	+0·2	+1·9	−1·7
	Lower Burma (Deltaic)	91·9	74·4	83·2	17·5	25·2	−0·2	+2·5	−2·7
	Central do.	99·0	68·4	83·8	30·6	40·5	+0·7	+2·7	−2.0
	Upper do.	94·4	65·9	80·2	28·5	41·3	−0·2	+0·9	−1·1
Bengal and Assam	Eastern Bengal	89·1	68·1	78·7	21·0	37·4	+0·9	+1·7	−0·8
	Assam (Surma)	85·6	64·3	75·0	21·3	31·1			
	Do. (Brahmaputra)	81·2	61·6	71·4	19·7	35·4	−1·7	−0·8	−0·9
	Deltaic Bengal	92·6	70·8	81·7	21·8	39·7	+1·0	+1·7	−0·7
	Central do.	93·6	67·0	80·3	26·6	43·6	+2·0	+1·3	+0·7
	North do.	86·6	61·3	74·0	25·4	42·1	+0·2	+0·7	−0·5
	Bengal Hills	64·2	37·9	51·0	26·4	42·1	+1·0	+0·2	+0·8
	Orissa	90·5	74·8	82·7	15·7	29·7	+0·9	+1·9	−1·0
	Chota Nagpur	95·2	66·0	80·6	29·1	44·9	+4·2	+2·5	+1·7
	Bihar (South)	93·9	66·1	80·0	27·8	44·3	+1·2	+1·7	−0·5
	Do. (North)	90·7	62·3	76·5	28·3	45·3	+1·0	+0·4	+0·6
North-Western Provinces and Oudh.	North-Western Provinces (East)	95·0	62·9	79·0	32·1	50·8	+1·7	+0·7	+1·0
	Oudh (South)	95·6	62·2	78·9	33·4	49·1	+4·2	+1·6	+2·6
	Do. (North)	92·4	61·8	77·1	30·6	48·8			
	North-Western Provinces (Central)	95·3	65·1	80·2	30·2	47·9	+4·5	+3·7	+0·8
	Do. do. (West)	92·9	63·7	78·3	29·2	46·5	+3·7	+3·4	+0·3
	Do. do. (Submontane, East).	91·8	63·2	77·5	28·6	45·0	+1·0	+0·7	+0·3
	Do. do. (Submontane, West).	87·9	58·5	73·3	29·4	46·1	+3·7	+1·6	+2·1
	Do. do. (Hills)	65·3	48·4	56·9	16·9	36·6	+2·2	+2·9	−0·7
Punjab	Punjab (South-East)	91·0	67·0	79·0	24·0	41·6	+2·8	+4·9	−2·1
	Do. (South)	90·1	59·9	75·1	30·2	48·9	+3·2	+3·5	−0·3
	Do. (Central)	89·7	58·1	73·9	31·6	55·0	+6·0	+3·3	+2·7
	Do. (Submontane)	88·2	59·8	74·0	28·4	49·5	+4·7	+3·3	+1·4
	Do. (Hills)	57·4	38·1	47·8	19·3	44·3	+3·3	+3·0	+0·3
	Do. (North)	80·0	54·8	67·7	25·2	48·8	+3·3	+3·8	−0·5
	Do. (West)	88·9	59·4	74·2	29·6	52·0	+5·0	+2·8	+2·2
Bombay and Malabar Coast Districts (Madras).	Malabar	90·1	77·2	83·7	12·9	18·1	+0·8	+1·5	−0·7
	Madras (South Central)	100·3	72·1	86·2	28·2	40·1	+2·9	+1·9	+1·0
	Coorg	85·5	63·1	74·3	22·4	29·8	+1·0	+1·9	−0·9
	Mysore	94·8	67·5	81·2	27·3	37·4	+2·5	+1·8	+0·7
	Konkan	85·7	72·8	79·3	12·9	23·0	−1·0	−0·9	−0·1
	Bombay Deccan	98·9	67·5	83·2	31·4	41·3	+2·3	−0·1	+2·4
	Hyderabad (North)	99·5	72·7	86·1	26·8	34·2	...	...	..
	Khandesh	98·8	63·2	81·0	35·6	46·2	+3·4	+0·2	+3·2
Central Provinces and Berar.	Berar	102·1	69·5	85·8	32·6	45·1	+3·5	+2·3	+1·2
	Central Provinces (West)	100·1	67·6	83·9	32·5	46·9	+2·7	+1·9	+0·8
	Do. (Central)	96·9	66·8	81·7	30·2	44·5	+2·6	+2·7	−0·1
	Do. (East)	97·2	70·5	83·9	26·7	39·8	+2·8	+3·6	−0·8

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Variation from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bombay (North)	Gujarat	99·3	68·7	84·0	30·6	45·7	+3·0	+2·1	+0·9
	Kathiawar and Cutch	93·7	65·9	79·8	27·8	45·0	+1·4	+0·9	+0·5
	Sind	95·3	66·5	80·9	28·8	50·3	+4·8	+3·0	+1·8
	Baluchistan Hills	73·1	42·5	57·8	30·6	54·2	+6·5	+4·8	+1·7
Rajputana and Central India.	Central India (East)	94·6	63·9	79·2	30·7	47·8	+2·4	+3·0	−0·6
	Rajputana (East), Central India (West)	94·8	66·2	80·6	28·5	46·0	+4·1	+4·3	−0·2
	Do. (West)	95·8	66·8	81·3	29·0	47·1	+4·9	+4·7	+0·2
Madras	East Coast (North)	89·8	75·4	82·6	14·5	26·8	+1·6	+0·8	+0·8
	Hyderabad (South)	100·8	74·2	87·6	26·6	35·6	+2·6	+3·2	−0·6
	Madras (Central)	103·5	75·6	89·6	27·8	40·4	+2·7	+2·7	0
	East Coast (Central)	96·0	74·5	85·3	21·6	33·2	+2·3	+2·0	+0·3
	Do. (South)	93·1	75·0	84·1	18·2	27·8	+1·9	+1·9	0
	Madras (South)	97·2	74·0	85·6	23·2	30·4	+2·9	+1·4	+1·5

The following gives a summary of the chief features and changes of the temperature conditions of the month.

As mentioned above, the temperature on the mean of month was generally excessive except in a few localities, but temperature was not steady and there were no less than seven periods into which the month may be divided so far as the temperature conditions are concerned. These are the 1st to the 5th; the 6th to the 10th; the 11th to the 13th; the 14th to the 19th; the 20th to the 24th; the 25th and 26th; and the 27th to the 31st:—

The conditions at the commencement of the month differed only slightly from the general mean conditions of the month. These conditions were—very excessive temperatures over North-Western and Central India and the east and centre of the Peninsula, and lower temperatures than usual over part of North-East India and over the West Coast. Taking the 3rd as the representative day for this period, the following gives comparative data for the different provinces of India:—

Province or Division.	Variation from normal of Mean maximum temperature, 3rd March.	Mean minimum temperature, 3rd March.	Mean daily temperature, 3rd March.
	°	°	°
Burma	−1·2	+2·9	+0·9
Assam	−5·8	−0·5	−3·2
Bengal	+0·9	+5·0	+3·0
Orissa	+2·5	+7·9	+5·2

Province or Division.	Variation from normal of Mean maximum temperature, 3rd March.	Mean minimum temperature, 3rd March.	Mean daily temperature, 3rd March.
	°	°	°
Bihar	+1·5	+2·6	+2·1
Chota Nagpur	+5·5	+3·4	+4·5
North-Western Provinces and Oudh	+6·2	+6·9	+6·6
Punjab	+4·9	+3·9	+4·4
Sind	+4·0	+4·7	+4·4
Rajputana	+5·0	+7·8	+6·4
Gujarat	+0·2	−0·6	−0·2
Central India	+3·6	+8·9	+6·3
Central Provinces	+4·6	+4·6	+4·6
Berar	+2·8	+4·0	+3·4
West Coast	−1·9	+0·2	−0·9
Bombay Deccan	+2·7	+1·5	+2·1
Mysore	+2·7	+3·6	+3·2
Madras Coast	+4·4	+3·9	+4·2
Madras Deccan	+4·4	+5·3	+4·9
South India	+4·3	+3·5	+3·9

On this day there were two areas of markedly excessive temperature, the first including parts of Rajputana, the North-Western Provinces, Central India and the Central Provinces, and the second parts of the Madras

Deccan and the Madras coast districts. There were also two areas of markedly low temperature, the first including the West Coast districts, the second the Assam districts. The following gives comparative data for the stations in these four areas :—

	Station.	Variation from normal of		
		Mean maximum temperature, 3rd March.	Mean minimum temperature, 3rd March.	Mean daily temperature, 3rd March.
		°	°	°
First Area	Jhansi	+8·8	+12·4	+10·6
	Sambhar	+6·5	+14·2	+10·4
	Ajmer	+5·6	+14·2	+9·9
	Lahore	+10·6	+7·9	+9·3
	Agra	+9·0	+9·2	+9·1
	Sirsa	+7·3	+9·9	+8·6
	Sutna	+6·7	+10·5	+8·6
	Nowgong	+5·9	+10·9	+8·4
	Meerut	+9·5	+7·2	+8·4
	Roorkee	+4·2	+12·5	+8·4
	Sialkot	+8·8	+7·6	+8·2
Second Area	Cuddapah	+6·9	+6·1	+6·5
	Hyderabad (Deccan).	+5·2	+7·3	+6·3
	Masulipatam	+6·7	+5·6	+6·2
	Salem	+4·8	+7·3	+6·1
	Nellore	+8·7	+3·2	+6·0
Third Area	Surat	−5·7	−0·6	−3·2
	Goa	−5·1	−0·5	−2·8
	Mormugao	−4·1	−1·4	−2·8
	Karwar	−2·4	−2·8	−2·6
	Ratnagiri	−4·0	−0·1	−2·1
Fourth Area	Sibsagar	−14·1?	−3·1	−8·6
	Dhubri	−3·2	−2·4	−2·8

These general conditions continued during the 4th and 5th. On the 6th, the temperature fell decidedly over Baluchistan and North-Western India and an area of relatively low temperature appeared over Baluchistan and part of the Punjab. This was the first appearance of a feeble cool wave which gradually spread across Northern India. This cool wave apparently followed and was caused by a slight fall of snow over the North-Western Himalayas, etc. Relatively low temperatures were experienced over Northern India until the 10th. The following gives comparative data for the meteorological divisions of Northern India from the 6th to the 10th to show the advance of the wave :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	6th March.	7th March.	8th March.	9th March.	10th March.
	°	°	°	°	°
Punjab	+0·4	−0·5	−1·3	+1·1	+2·9
North-Western Provinces and Oudh.	+3·6	+0·4	−1·8	−2·6	−1·0
Rajputana	+2·5	+1·2	+0·7	−0·3	+3·1
Central India	+2·6	−0·7	−1·3	−3·4	−1·6
Chota Nagpur	+6·2	+4·1	+0·9	−1·2	+0·7
Bihar	+3·5	+2·5	−1·5	−3·9	−3·4
Bengal	+4·2	+3·6	+0·5	−2·4	−2·6
Assam	+0·4	+2·5	+0·8	−2·1	−2·1

While these changes were in progress in the north, very high temperatures were recorded over the Madras Deccan districts. The following gives comparative data from the 6th to the 10th for those stations in the Peninsula at which the excess was 7½° or more :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean daily temperature of date.
		°	°	°
6th March	Cuddapah	+10·0	+7·7	+8·9
	Hyderabad (Deccan)	+6·8	+9·4	+8·1
	Bellary	+5·6	+9·6	+7·6
	Raichur	+5·8	+9·1	+7·5
	Kurnool	+6·5	+8·4	+7·5
8th "	Cuddapah	+8·7	+7·0	+7·9

As mentioned above, the cool wave traversing Northern India had reached the north-east districts by the 10th. On the 11th, rain commenced to fall in parts of Bengal so that temperature was still further depressed, and

a strongly marked area of lower temperature than usual was established over this region. The following gives comparative data from the 11th to the 13th for Burma, North-East India, Central India and the Central Provinces.

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	11th March.	12th March.	13th March.
	°	°	°
Burma	+0·2	−0·4	−1·4
Assam	−1·6	−0·8	+0·8
Bengal	−1·3	−1·7	−0·6
Orissa	−0·9	−1·8	−2·7
Bihar	−2·2	−0·2	−0·9
Chota Nagpur	−0·6	−0·6	+0·5
Central India	−0·4	+0·8	+1·8
Central Provinces	−0·4	−1·2	+0·2

During the same period very excessive temperatures were reported over Baluchistan and North-West India. The following gives comparative data in illustration:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	11th March.	12th March.	13th March.
	°	°	°
Baluchistan	+11·9	+13·1	+12·7
Punjab	+ 4·6	+ 6·3	+ 7·9
Sind	+ 5·8	+ 6·7	+ 8·0
Rajputana	+ 4·6	+ 4·9	+ 6·9
Gujarat	+ 6·6	+ 7·2	+ 6·4

The temperature variation returns for the 13th showed that temperature was rising over Bengal, Assam, etc., while it was falling over the Peninsula with the result that the area of excessive temperature from the north-west gradually extended all over Northern India, while the area of relatively low temperature was transferred southward to Burma and the Peninsula. These conditions prevailed from the 14th to the 19th, and the following comparative data for the 16th illustrate the distribution at this time.

Province or Division.	Variation from normal of		
	Mean maximum temperature, 16th March.	Mean minimum temperature, 16th March.	Mean daily temperature, 16th March.
	°	°	°
Burma	−0·8	−0·3	−0·6
Assam	+2·9	+3·6	+3·3
Bengal	+2·7	+3·5	+3·1
Orissa	+1·6	+2·1	+1·9
Bihar	+4·3	+1·9	+3·1
Chota Nagpur	+6·0	+3·6	+4·8
North-Western Provinces and Oudh	+9·1	+4·8	+7·0
Punjab	+14·0	+8·2	+1·1
Sind	+7·2	+4·5	+5·9
Rajputana	+9·2	+8·4	+8·8
Gujarat	+4·0	−0·6	+1·7
Central India	+6·5	+5·1	+5·8
Central Provinces	+4·8	+2·0	+3·4
Berar	+5·2	−0·7	+2·3
West Coast	+0·1	−0·8	−0·4
Bombay Deccan	+3·5	−3·3	+0·1
Mysore	+1·8	−0·5	+0·7
Madras Coast	−0·1	−2·7	−1·4
Madras Deccan	+1·8	+1·1	+1·5
South India	+2·8	−0·1	+1·4

Very hot weather prevailed during this period over Baluchistan and North-West India, the excess being most marked in the day temperature though it was also considerable in the night temperature. The following gives data from the 14th to the 19th for those stations at which the mean temperature was 12° or more in excess:—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
14th March	Chaman	+17·9	+12·3	+15·1
"	Montgomery	+18·5	+ 6·8	+12·7
15th "	Cherat	+20·9	+ 7·8	+14·4
"	Lahore	+18·9	+ 9·2	+14·1
"	Murree	+13·9	+14·0	+14·0
"	Chaman	+15·7	+10·1	+12·9
"	Rawalpindi	+20·0	+ 5·3	+12·7
"	Sambhar	+11·7	+13·5	+12·6

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
15th March	Sialkot	+15·4	+ 9·5	+12·5
"	Bikaner	+12·9	+11·7	+12·3
"	Jacobabad	+16·8	+ 7·4	+12·1
16th "	Chaman	+17·8	+20·4	+19·1
"	Sialkot	+17·3	+14·0	+15·7
"	Murree	+13·8	+13·9	+13·9
"	Lahore	+16·5	+11·0	+13·8
"	Ajmer	+ 9·1	+17·1	+13·1
"	Delhi	+11·0	+13·7	+12·4
"	Rawalpindi	+17·0	+ 7·4	+12·2
"	Bikaner	+11·4	+12·5	+12·0
17th "	Cherat	+17·0	+16·0	+16·5
"	Chaman	+18·4	+14·4	+16·4
"	Lahore	+17·7	+14·8	+16·3
"	Sialkot	+15·6	+16·7	+16·2
"	Quetta	+17·4	+14·6	+16·0
"	Jacobabad	+12·4	+14·0	+13·2
"	Mooltan	+14·1	+12·1	+13·1
"	Rawalpindi	+12·2	+14·0	+13·1
"	Montgomery	+15·7	+10·3	+13·0
"	Khushab	+14·0	+10·4	+12·2
18th "	Jacobabad	+14·1	+12·3	+13·2
"	Chaman	+10·0	+15·9	+13·0
"	Montgomery	+12·3	+13·3	+12·8
"	Quetta	+10·3	+14·3	+12·3
19th "	Ajmer	+ 9·1	+18·9	+14·0
"	Chaman	+12·8	+13·2	+13·0
"	Quetta	+10·2	+14·0	+12·1

On the 19th rain fell over North-West and North-East India and some snow on the hills. On the 20th a rapid fall of temperature took place over North-West India and Baluchistan and a fresh cool wave appeared on the north-west frontier. The wave advanced slowly eastward and by the 24th became merged in the area of low temperature that had been established over Assam by the constant thunder-showers which occurred over that region during this period. The following gives comparative data for Northern India from the 20th to the 24th, showing the progress of the feeble cool wave and the area of steady low temperature in the north-east:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	20th March.	21st March.	22nd March.	23rd March.	24th March.
	°	°	°	°	°
Punjab	+2·7	−2·6	−1·7	−2·1	+1·3
Sind	+2·4	−0·6	+1·7	+1·5	+0·5
Rajputana	+7·1	+1·7	−0·3	+2·1	+0·9
Gujarat	+1·3	+0·3	−1·1	+1·0	+1·8
North-Western Provinces and Oudh.	+7·1	+5·0	+1·5	−0·6	−0·2
Central India	+6·5	+5·0	+0·8	+1·4	+1·4
Chota Nagpur	+6·6	+7·5	+4·1	+2·5	+2·8
Bihar	+3·5	+3·7	+0·4	+0·5	+0·7
Bengal	+1·7	+2·7	−0·2	+0·3	+0·9
Assam	−4·6	−0·7	−3·7	−3·3	−1·4

During this period the highest temperatures, relatively to the normal, were shown over the central parts of the country. The following gives comparative data for the Central Provinces from the 20th to the 24th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	20th March.	21st March.	22nd March.	23rd March.	24th March.
	°	°	°	°	°
Central Provinces	+4·7	+4·1	+2·5	+5·1	+5·0

On the 25th and 26th, temperature conditions were very irregular. Local showers were reported in different parts of the country occasioning local deficiencies of temperature, while at other and neighbouring stations the previously existing excess was unaffected. During this period, however, the general movement of temperature was upward and on the last four days of the month the mean temperature was excessive over the greater part of the country. The following gives comparative data for the 30th for all the meteorological divisions in illustration:—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 30th March.	Mean minimum temperature, 30th March.	Mean daily temperature, 30th March.
	°	°	°
Burma	−0·6	+1·8	+0·6
Assam	−2·2	−0·9	−1·6
Bengal	−2·2	+1·1	−0·6
Orissa	+1·0	+2·5	+1·8
Bihar	+0·5	+1·5	+1·0

Province or Division.	Variation from normal of		
	Mean maximum temperature, 30th March.	Mean minimum temperature, 30th March.	Mean daily temperature, 30th March.
	°	°	°
Chota Nagpur	+3·6	+5·2	+4·4
North-Western Provinces and Oudh	+1·2	+3·9	+2·6
Punjab	+1·2	+3·8	+2·5
Sind	—0·6	+2·5	+1·0
Rajputana	+1·5	+5·9	+3·7
Gujarat	+2·2	+1·0	+1·6
Central India	+0·3	+5·3	+2·8
Central Provinces	+0·6	+4·9	+2·8
Berar	+2·4	+5·1	+3·8
West Coast	—0·8	+1·1	+0·2
Bombay Deccan	+1·5	+3·9	+2·7
Mysore	+3·6	+0·8	+2·2
Madras Coast	+1·9	+0·5	+1·2
Madras Deccan	+1·0	+2·6	+1·8
South India	+3·3	+3·1	+3·2

It will be noticed that the very large excess in North-Western India had more or less disappeared at this time and that the excess was, comparatively speaking, very uniform throughout the country.

The following gives the variations of the mean daily temperature from the normal, week by week, during the month and also for the month in twenty of the larger provinces or divisions of the Empire :—

Province or Division.	Variation from normal of mean temperature for week ending				
	10th March.	17th March.	24th March.	31st March.	For whole month.
	°	°	°	°	°
Burma	+1·8	—0·2	+0·8	+1·4	+0·9
Assam	0	+0·9	—2·8	+0·1	—1·3
Bengal	+1·6	+0·8	+1·2	+0·7	+1·2
Orissa	+3·0	—0·3	+2·0	+0·6	+1·4
Bihar	+0·3	+1·1	+2·2	+1·4	+1·1
Chota Nagpur	+3·1	+2·7	+5·2	+3·2	+3·4
North-Western Provinces and Oudh.	+1·5	+4·1	+3·5	+2·1	+2·8
Punjab	+1·2	+8·8	+1·7	+2·9	+3·9
Sind	+3·0	+6·6	+2·9	+2·6	+3·9
Rajputana	+1·9	+6·9	+4·0	+3·5	+4·3
Gujarat	+0·7	+4·7	+1·3	+0·5	+1·9
Central India	+0·4	+3·0	+3·8	+2·1	+2·7
Central Provinces	+1·7	+1·1	+3·6	+2·3	+2·6
Berar	+2·4	+2·2	+3·3	+3·8	+2·9
West Coast	—0·1	+1·2	—0·5	—0·9	+0·1
Bombay Deccan	+2·6	+1·3	+0·4	+0·8	+1·4
Mysore	+4·2	+0·2	+1·3	+2·4	+2·2
Madras Coast	+2·8	—0·4	+1·6	+1·0	+1·6
Madras Deccan	+5·7	+0·2	+2·1	+2·3	+2·8
South India	+3·3	+0·9	+2·7	+2·8	+2·5

This excess of temperature was much less strongly marked in Persia than in the Indian region but the night temperatures on the mean of the month were in excess at the following stations :—

Station.	Mean minimum temperature.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	°	°	°
Meshed	43·5	38·3	+5·2
Teheran	43·4	37·7	+5·7
Ispahan	41·3	36·1	+5·2
Bushire	62·5	58·2	+4·3
Jask	68·1	65·9	+2·2

On the other hand, the excess though not large was general over Arabia and at the Seychelles, Zanzibar and Mauritius. The following gives data for these extra-Indian observatories :—

Station.	Variation from normal of		
	Mean maximum temperature, March 1900.	Mean minimum temperature, March 1900.	Mean daily temperature, March 1900.
	°	°	°
Muscat	+1·6	+1·4	+1·5
Baghdad	—2·0	+6·6	+2·3
Aden	—1·4	+2·2	+0·4
Perim	+0·2	—0·5	—0·2
Seychelles	+0·9	—0·1	+0·4
Zanzibar	+0·8	+0·7	+0·8
Mauritius	...	...	+0·8

Winds.

In Burma the winds were even more variable than usual and the steadiness was less than the average, while, on the contrary, on the Bengal and Orissa Coasts where the wind was more southerly than the normal the steadiness was greater and the force higher than the average. The following gives comparative data as regards steadiness and velocity for the Orissa and Bengal stations :—

Station.	Steadiness.			Wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
False Point . . .	79	37	+42	285	266	+19
Chittagong . . .	32	20	+12	165	129	+36
Calcutta . . .	58	49	+ 9	104	118	—14
Saugor Island . .	69	61	+ 8	395	309	+86

In the Gangetic Plain the direction, steadiness and velocity were about the normal. In the Upper Sub-Himalayas the usual general north-westerly to west-north-westerly wind prevailed. The wind was on the whole somewhat steadier than usual, but the velocity varied irregularly from the average. The following gives comparative data :—

Station.	Steadiness.			Mean wind direction.			Wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Westerly deflection.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
				°	°				
Roorkee .	29	25	+ 4	N 72 W	N 64 W	+ 8	82	72	+10
Meerut . .	58	44	+14	N 75 W	N 60 W	+15	55	66	—11
Lahore . .	21	31	—10	N 28 W	N 10 W	+18	58	70	—12
Ludhiana .	39	34	+ 5	N 64 W	N 45 W	+19	55	50	+ 5

In the Indus Valley the winds were nearly normal as regards direction. This is shown by the following table :—

Station.	Mean wind direction.	
	Actual, March 1900.	Normal, March.
	°	°
Peshawar	N 21 E	N 18 E
Jacobabad	S 66 E	N 87 E
Kurrachee	S 70 W	S 77 W

The winds were slightly steadier than the normal and at Jacobabad and Kurrachee were of about the usual stength. The wind was west-south-westerly at Jaipur and Udaipur and west-north-westerly in Gujarat, while the force and steadiness in this region varied irregularly from the normal. The following gives comparative data of the mean direction, steadiness and air movement of the month in Burma and Northern India :—

Province or Division.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Westerly deflection.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
				°	°	°			
Burma . .	60	70	— 8	S 75 W	S 80 W	— 5	211	160	+51
Bengal . .	53	43	+10	S 18 W	S 33 W	—15	221	185	+36
Orissa . .	79	37	+42	S 21 W	S 50 W	—29	285	266	+19
North-Western Provinces and Oudh.	48	36	+12	N 75 W	N 62 W	+13	83	83	•
Punjab . .	26	27	— 1	N 25 W	N 13 W	+12	52	70	—18
Sind . .	48	38	+10	S	S	0	191	186	+ 5
Rajputana .	42	34	+ 8	S 87 W	N 50 W		157	161	— 4

The above shows that in Burma and Bengal the wind was stronger than usual, but that in Northern India the direction, steadiness and velocity were approximately normal.

In the Deccan the winds varied between north north-west and west-north-west at the majority of stations,

but at Hyderabad there was a local east-south-east wind. On the mean of all the stations the wind was somewhat less westerly than usual. This north-west wind was generally stronger and steadier than the normal. The following table giving comparative data of steadiness and velocity illustrates this feature :—

Station.	Steadiness.			Wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Belgaum . . .	28	17	+11	300	272	+28
Sholapur . . .	21	5	+16	166	190	—24
Poona	64	43	+21	279	190	+89
Akola	49	42	+ 7	160	113	+47
Buldana . . .	61	47	+14	234	176	+58
Khandwa . . .	45	45	0	161	116	+45
Nagpur . . .	23	12	+11	148	133	+15
Hyderabad (Deccan) .	18	23	— 5	104	105	— 1

Along the West Coast the wind direction was about normal, but the steadiness was slightly greater than usual. The following gives data in illustration :—

Station.	Steadiness.			Wind direction.	
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.
				°	°
Bombay . . .	69	52	+17	N 39 W	N 31 W
Karwar . . .	80	77	+ 3	N 81 W	N 75 W

The winds varied irregularly from the normal in South India. They were somewhat more southerly than usual at Madras where, however, the steadiness and velocity were about the average. The following gives data for this station in illustration :—

Station.	Steadiness.			Wind direction.			Wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Southerly deflection.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
				°	°				
Madras .	76	81	—5	S 28 E	S 46 E	+16	155	150	+5

In Mysore and at Chitaldroog and Bellary the steadiness was low or very low and the mean direction was in some cases more easterly than the average. The following gives data:—

Station.	Steadiness.			Wind direction.	
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.
				°	°
Bangalore . .	42	46	— 4	S 57 E	S 27 E
Hassan . . .	40	51	—11	N 88 E	S 84 E
Mysore . . .	37	37	0	S 77 E	N 84 E
Chitaldroog . .	11	27	—16	N 76 E	N 87 E
Bellary . . .	5	19	—14	S 74 W	S 35 E

The following gives comparative data of wind direction, steadiness and velocity for the different divisions of the Peninsula:—

Province or Division.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Westerly deflection.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
				°	°	°			
Bombay Deccan.	38	22	+16	N 47 W	N 41 W	+6	248	217	+31
Berar .	55	45	+10	N 41 W	N 38 W	+3	197	145	+52
Central Provinces.	34	29	+ 5	N 26 W	N 23 E	...	155	125	+30
Madras Deccan.	12	21	— 9	S	S 40 E	...	123	107	+16
West Coast	75	65	+10	N 60 W	N 53 W	+ 7	180	183	— 3
						East deflection.			
South India	27	38	—11	S 60 E	S 66 E	— 6	117	126	— 9
Mysore .	33	40	— 7	S 83 E	S 82 E	+ 1	140	128	+12
Madras Coast.	76	81	— 5	S 28 E	S 46 E	—18	155	150	+ 5

The above shows that in the Bombay Deccan, Berar, the Central Provinces and the West Coast the wind was north-westerly and west-north-westerly and generally stronger and steadier than usual, while in Madras, the

direction ranged between south and east-south-east and the steadiness was low.

At Quetta the wind direction on the mean of the month was west-north-westerly instead of west-south-westerly, and the mean force was only about half the normal. In the Western Himalayan region the directions varied irregularly from the normal. The wind was much steadier and stronger than the normal at Srinagar and Chakrata and slightly stronger and steadier at Kailang and Ranikhet. The following gives data in illustration :—

Station.	Steadiness.			Wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Srinagar . . .	43	8	+35	110	83	+27
Kailang . . .	82	73	+ 9	36	32	+ 4
Chakrata . . .	37	11	+26	240	150	+90
Ranikhet . . .	39	27	+12	91	78	+13

At Mount Abu the wind was slightly more southerly than usual, but at the remaining stations in the central districts the direction was more northerly. At all of them the steadiness and strength were above the average. This is shown below :—

Station.	Steadiness.			Wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Mount Abu . . .	40	38	+ 2	229	164	+65
Pachmarhi . . .	48	32	+16	153	115	+38
Chikalda . . .	43	30	+13	233	173	+60

At Aden and Perim the wind was stronger than usual, but the direction and steadiness were fairly average. At Zanzibar the wind was less easterly than the average and was likewise slightly more unsteady and lighter than usual, while at the Seychelles the velocity and steadiness were about the normal while the direction was less westerly than usual. The following gives data for these two stations :—

Station.	Steadiness.			Mean wind direction.		Wind velocity in miles per diem.		
	Actual percentage, March 1900.	Normal percentage, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Zanzibar . .	18	21	−3	S 18° E	S 34° E	123	141	−18
Seychelles . .	60	56	+4	N 20° W	N 31° W	125	127	− 2

The following gives the chief features of the mean air movement of the month in India :—

(1) The wind was stronger than usual in Burma.

(2) The winds were about normal in Northern India.

(3) The wind was steadier, stronger and more westerly than usual in the Central Provinces, Berar and the Bombay Deccan.

(4) It was more southerly than usual in the Madras divisions.

(5) The steadiness and velocity were about normal at the Seychelles and Zanzibar.

The following gives comparative data of the mean air movement for the various provinces based on Table I :—

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Burma	108	103	+ 5
Assam	132	98	+34
Bengal	101	132	−31
Orissa	223	173	+50
Bihar	94	89	+ 5
Chota Nagpur	89	178	−89
North-Western Provinces and Oudh .	70	89	−19
Punjab	79	67	+12
Sind	190	192	− 2
Rajputana	134	132	+ 2
Gujarat	194	182	+12
Central India	120	125	− 5
Central Provinces	96	86	+10
Berar	156	101	+55
West Coast	168	199	−31
Bombay Deccan	221	202	+19
Mysore	139	86	+53
Madras Coast	235	151	+84
Madras Deccan	166	115	+51
South India	98	101	− 3

Humidity and Cloud.

The air was drier than usual over by far the greater part of the country. The deficiency in the mean humidity conditions was small over North-East and North-West India and in the coast districts, but the amount of the deficiency increased inland and was greatest and considerable within a broad band which ran north and south between Ludhiana and Hyderabad (Deccan). There were two stations on the plains of India where the humidity was higher than usual—the first being Deesa, the second Madras—and in both cases the excess was small. Over the whole of the remainder of India the air was drier than usual.

At the Burma Coast stations and at Port Blair the vapour present in the air was greater than usual, but the mean temperature was in marked excess and the mean humidity was consequently in trifling defect. The following gives data for three stations :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Port Blair . . .	·890	·863	+·027	75	76	—1
Rangoon . . .	·674	·671	+·003	62	64	—2
Diamond Island . .	·773	·765	+·008	74	75	—1

Similar conditions prevailed in Bengal and Orissa. At Hazaribagh and Allahabad the vapour tension was in defect and at Darbhanga in excess. The temperature on the mean of the month was higher than usual at all three stations, so that while the relative humidity was in considerable defect at the two first stations it was normal at the last. The following gives data :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Hazaribagh . .	·248	·284	—·036	26	34	—8
Allahabad . . .	·343	·359	—·016	37	42	—5
Darbhanga . . .	·479	·447	+·032	54	54	0

At the Upper Sub-Himalayan stations with the exception of Meerut the air was drier than usual, while the temperature on the mean of the month was in considerable to large excess, consequently the relative humidity was everywhere in defect, the deficiency being largest and considerable at the two stations for which comparative data are given below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Ludhiana . . .	·309	·364	—·055	40	54	—14
Roorkee . . .	·274	·328	—·054	37	49	—12

Throughout the Indus Valley the air contained more aqueous vapour than usual, but temperature was high and the relative humidity in slight defect. This is shown below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Jacobabad . . .	·379	·301	+·078	35	37	—2
Kurrachee . . .	·614	·591	+·023	64	65	—1
Peshawar . . .	·371	·328	+·043	56	57	—1

In Rajputana both the absolute and relative humidities were below the normal and the same was the case in the Deccan. The deficiency was most marked in Eastern Rajputana and the Central Provinces and the relative

humidity was 10 or more below the normal at the stations for which comparative data are given below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Nagpur . . .	·255	·355	—·100	21	34	—13
Khandwa . . .	·220	·302	—·082	19	31	—12
Buldana . . .	·183	·282	—·099	17	28	—11
Jaipur	·277	·305	—·028	27	37	—10

Along the West Coast both the absolute and relative humidities were lower than usual by small amounts. At Madras, the amount of aqueous vapour present in the air was more than usual and the mean temperature only in slight excess so that the relative humidity was greater than usual. The following gives comparative data for this station :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Madras. . . .	·828	·772	+·056	77	74	+ 3

At all the remaining stations in South India the humidity was lower than the average, but the deficiency was small except at the station for which comparative data are given below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Hassan . . .	·382	·454	—·072	45	56	—11

At Srinagar and Darjeeling both the absolute and relative humidities exceeded the normal, but at the remaining stations both were generally in defect. In some cases the deficiency was considerable as is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Ranikhet . . .	·194	·232	—·038	38	53	—15
Leh	·091	·102	—·011	47	58	—11
Simla	·162	·185	—·023	40	50	—10

At the central hill stations the amount of aqueous vapour present in the air was greater than usual and the relative humidity was slightly above the average at Pachmarhi and below at Mount Abu and Chikalda. The following gives data for these stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March. 1900.
	"	"	"	%	%	
Pachmarhi . . .	·324	·245	+·079	35	34	+ 1
Mount Abu . . .	·237	·219	+·018	30	32	— 2
Chikalda . . .	·291	·287	+·004	30	33	— 3

At Zanzibar and Mauritius the air was slightly damper than usual.

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
	"	"	"	%	%	
Zanzibar . . .	·897	·889	+·008	79	78	+ 1
Mauritius . . .	·763	·736	+·027	81	79	+ 2

The month of March 1900 like the corresponding month in 1899 and 1898 was abnormally dry, but the deficiency was somewhat less strongly marked in the month under review than in the corresponding periods in 1899 and 1898. The driest stations in India during the month (25°/₀ or less)

were as follows, the figures for March 1899 being added for comparison :—

Station.	Relative Humidity.			Relative Humidity.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Actual, March 1899.	Normal, March.	Variation of actual from normal, March 1899.
	%	%		%	%	
Sholapur	23	31	− 8	24	31	− 7
Akola	23	29	− 6	19	29	−10
Nagpur	21	34	−13	22	34	−12
Khandwa	19	31	−12	18	31	−13
Buldana	17	28	−11	14	28	−14

The driest areas during the month hence included the following divisions, *viz.*, Berar, the Central Provinces and the Bombay Deccan.

The month was very dry throughout, but the driest period was from the 7th to the 17th and the lowest humidities recorded during this period were :—

Station.	Date.	Hour.	Lowest humidity recorded during the month.
			%
amnagar	7th March	4 P.M.	5
Poona	" "	"	4
amnagar	8th "	"	4
Buldana	" "	10 A.M. and 4 P.M.	5
Chakrata	" "	10 A.M.	0
Jamnagar	9th "	4 P.M.	4
Buldana	" "	10 A.M.	4
Deesa	" "	4 P.M.	4
Buldana	10th "	10 A.M.	3
Deesa	" "	4 P.M.	4
Jamnagar	11th "	"	4
Buldana	" "	10 A.M.	5
Deesa	" "	4 P.M.	4
Leh	" "	"	0
Jamnagar	12th "	"	3
Buldana	" "	"	3
Deesa	" "	"	5
Akola	13th "	"	5
Buldana	" "	"	3
Deesa	13th March	4 P.M.	4
Chitaldroog	" "	"	5
Poona	14th "	"	4
Akola	" "	"	4
Buldana	" "	"	0
Deesa	" "	"	2
Bellary	" "	10 A.M.	5
Buldana	15th "	"	3
Deesa	" "	4 P.M.	4
Belgaum	16th "	"	6
Buldana	" "	"	5
Belgaum	17th "	10 A.M.	5
Poona	" "	4 P.M.	5

The variations from the normal of the mean distribution of cloud during the month bore no resemblance to the variations of the mean humidity conditions from the normal.

There were three areas of excessive cloudiness on the mean of the month. The first included the Punjab where the mean cloud amount was in general slight excess. The following gives data for this area :—

Station.	Mean cloud amount.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Peshawar	5·5	4·8	+0·7
Lahore	3·7	3·2	+0·5
Ludhiana	4·4	4·1	+0·3

The second area included the South Deccan. This area was small, but the excess at Bellary was considerable. The following gives comparative data :—

Station.	Mean cloud amount.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Bellary	3·3	2·2	+1·1
Hyderabad (Deccan)	2·1	1·8	+0·3

The third area of excess included the north and east of the Bay. The excess was considerable at Akyab and Port Blair, but was slight at the remaining stations. The following gives comparative data for this area :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Akyab	3·8	2·0	+1·8
Port Blair	4·2	2·9	+1·3
False Point	4·1	3·2	+0·9
Chittagong	3·7	3·2	+0·5

In addition to the above the sky was locally slightly more cloudy than usual at Khandwa and Mysore. The following gives comparative data for these two stations :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Khandwa	2·1	1·7	+0·4
Mysore	2·6	2·3	+0·3

Over the whole of the remainder of India the sky was clearer of cloud than usual. Over the greater part of the country the variation from the normal was small, but in three different areas it was considerable. The first area covered part of North Bombay, and the deficiency was greatest at Kurrachee. The following gives comparative data for the area in question :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Kurrachee	1·4	2·7	−1·3
Deesa	1·2	2·3	−1·1
Jacobabad	2·0	3·0	−1·0

The second area included North Bihar and Chota Nagpur as represented by the stations of Darbhanga and Hazaribagh. Comparative data are given below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Darbhanga	0·2	1·3	−1·1
Hazaribagh	1·4	2·7	−1·3

The third area covered part of Mysore and South India and the following table gives data in illustration :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Bangalore	0·5	2·3	−1·8
Hassan	2·9	3·9	−1·0
Salem	1·3	2·4	−1·1

Cloud was generally in excess of the normal over the North-West Himalayas (except at Leh), thus agreeing with the condition over the Punjab plains. The following gives data :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Simla	5·9	4·8	+1·1
Srinagar	6·0	5·6	+0·4
Kailang	6·4	6·2	+0·2
Leh	5·6	6·3	−0·7

Over the remainder of the Himalayan hill districts the cloud amount was generally in defect, the deficiency being greatest and considerable at Katmandu. This is shown as follows :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Katmandu	2·1	3·6	−1·5
Chakrata	3·2	3·9	−0·7
Darjeeling	4·9	5·2	−0·3
Ranikhet	5·3	3·7	−0·2

At the central hill stations the sky was generally clearer than usual, but at Pachmarhi the cloud amount was slightly

greater than the average. This is shown by the following data :—

Station.	Mean cloud amount.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Pachmarhi	2·3	2·1	+0·2
Chikalda	1·6	2·4	−0·8
Mount Abu	1·7	2·5	−0·8

At Wellington the sky, as at the Mysore stations, was clearer than usual on the mean of the month. This is shown as follows :—

Station.	Mean cloud amount.		
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.
Wellington	1·6	3·0	−1·4

The sky was practically clear of cloud or the mean cloud amount was 1·0 or less at the following stations, *viz.*, Darbhanga, Jamnagar, Akola, Karwar and Bangalore.

At Aden and Perim the cloud amount was in slight and considerable excess respectively, while at Zanzibar there was slightly more and at the Seychelles considerably less cloud than usual.

The chief abnormal features of the cloud distribution of the month were—

(1) Slightly increased cloud both on the hills and plains of the Punjab.

(2) Slightly to considerably increased cloudiness over part of the Bay area.

(3) Slightly increased cloudiness over the South Deccan.

(4) Slight to moderate deficiency over nearly the whole of the remainder of India—most pronounced in South-West Rajputana, Sind, North Bihar, Chota Nagpur and Mysore.

(5) Irregular variations from the normal in the South-East Trades region.

Rainfall.

The normal rainfall of the month of March is small over by far the greater part of India, ranging between an average of a hundredth of an inch and an inch in amount over the whole of India, except the following districts :—

1st.—South Madras, where it slightly exceeds an inch.

2nd.—Bengal, Orissa and Assam, in which it ranges from an inch in Orissa and Central Bengal to 3 inches in East Bengal, 4 inches in the Assam Valley and 9 inches in Cachar.

3rd.—The hill districts of the North-Western Provinces and the hill, submontane and north-west divisions of the Punjab in which it ranges between one inch in the submontane districts and three inches on the outer ranges of the Punjab hills.

The rainfall of the month under review was actually or practically *nil* (*i.e.*, was less than one-tenth of an inch) over the greater part of the country, including the greater part of North-West India, the whole of the central parts of the country, Bihar and the greater portion of the Peninsula and about half of Burma. It was between one tenth and one inch in amount over nearly the whole of the Punjab plains, the submontane districts of the North-Western Provinces, Chota Nagpur, the east of the Central Provinces, Upper Burma, the south of the Nizam's dominions and the extreme south of the Peninsula. Effective rain was received in the following divisions :—

(1) Baluchistan
(2) The North-West Himalayas
(3) Kashmir
(4) Assam
(5) Parts of North, East, Deltaic and Central Bengal, and the Bengal hills
(6) Tenasserim
(7) West Ceylon and
(8) The Ratnagiri district of Bombay.

The heaviest rainfall was recorded over the Khasia and Jaintia hills and westward into East Bengal, where the total fall of the month exceeded ten inches.

Rain fell as follows during the month :—

(1) Between the 1st and the 4th, when there was light snow in Kashmir and rain over Baluchistan, the North-West Himalayas and the North Punjab.

(2) The 5th to the 7th, when showers occurred in Assam and North-East India.

(3) The 17th to the 21st, when there were light showers over Baluchistan, Kashmir, the North-West Himalayas, the Punjab plains and the west of the North-Western Provinces.

(4) The 17th to the end of the month, when showers,

generally light or moderate and a good deal scattered, occurred over North-East India, Assam and Upper Burma.

(5) The 26th and 27th, when showers fell over Baluchistan and the West Punjab.

The storms in Assam were, during the latter half of the month, heavier and more continuous than usual, but in Burma and Bengal they were generally lighter and more scattered than the average.

The following table gives comparative rainfall data for the 57 meteorological or rainfall divisions of the Empire:—

Province.	Division.	Number of rainy days. Average actual, March 1900.	Number of rainy days. Average normal, March.	Rainfall. Average actual, March 1900.	Rainfall. Average normal, March.	Rainfall. Variation of actual from normal, March 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim	1·0	...	1·06	...	...
	Lower Burma (Deltaic)	0	...	0·01	...	...
	Central ditto	0	...	0	0	0
	Upper ditto	1·3	...	0·49	0·31	+0·18
	Arakan	0	...	0	...	...
Bengal and Assam	Eastern Bengal	2·7	3·3	2·50	2·64	−0·14
	Assam (Surma)	14·0	8·0	12·97	7·36	+5·61
	Do. (Hills)	8·9	5·6	6·19	3·99	+2·20
	Do. (Brahmaputra)	9·4	6·2	4·67	3·40	+1·27
	Deltaic Bengal	1·2	2·6	0·45	1·68	−1·23
	Central do.	0·3	1·8	0·18	1·03	−0·85
	North do.	1·9	1·8	0·78	1·23	−0·45
	Bengal Hills	4·9	3·2	1·95	1·84	+0·11
	Orissa	2·3	2·1	1·31	1·21	+0·10
	Chota Nagpur	0·5	1·9	0·14	0·98	−0·84
	Bihar (South)	0	0·9	0·01	0·45	−0·44
	Do. (North)	0·1	0·9	0·05	0·46	−0·41
North-Western Provinces and Oudh.	North-Western Provinces (East)	0	0·7	0·01	0·26	−0·25
	Oudh (South)	0	0·7	0	0·30	−0·30
	Do. (North)	0	0·9	0·04	0·43	−0·39
	North-Western Provinces (Central)	0	0·7	0·01	0·28	−0·27
	Do. do. (West)	0·3	1·1	0·06	0·42	−0·36
	Do. do. (East Submontane)	0·3	0·7	0·07	0·29	−0·22
	Do. do. (West do.)	0·4	1·8	0·12	0·88	−0·76
	Do. do. (Hills)	1·0	3·6	0·50	2·10	−1·60
Punjab	Punjab (South-East)	0·5	0·9	0·12	0·47	−0·35
	Do. (South)	0·9	0·9	0·21	0·49	−0·28
	Do. (Central)	1·3	1·5	0·45	0·89	−0·44
	Do. (Submontane)	1·5	1·7	0·46	1·14	−0·68
	Do. (Hills)	4·0	4·4	1·57	3·45	−1·88
	Do. (North)	3·1	3·2	1·43	1·98	−0·55
	Do. (West)	1·0	1·0	0·27	0·54	−0·27
Bombay and Malabar Coast Districts (Madras).	Malabar	0	1·0	0·04	0·54	−0·50
	Travancore	0·8	...	0·42	...	...
	Madras (South Central)	0·1	0·8	0·10	0·49	−0·39
	Coorg	0·6	...	0·28	...	...
	Mysore	0·1	0·7	0·01	0·32	−0·31
	Konkan	0·1	0·2	0·05	0·07	−0·02
	Bombay Deccan	0·6	0·4	0·26	0·19	+0·07
	Hyderabad North*	...	...	...	...	...
	Khandesh	0	0·1	0	0·03	−0·03
Central Provinces and Berar.	Berar*	...	...	0·01	0·27	−0·26
	Central Provinces (West)	0	0·6	0·01	0·28	−0·27
	Do. (Central)	0·2	0·8	0·10	0·41	−0·31
	Do. (East)	0·4	1·1	0·14	0·53	−0·39
Bombay (North)	Gujarat	0	0	0	0·01	−0·01
	Kathiawar and Cutch	0	0·1	0	0·05	−0·05
	Sind	0·1	...	0·03	0·28	−0·25
	Baluchistan Hills	2·9	...	0·81	1·12	−0·31
Rajputana and Central India.	Central India (East)	0	...	0	0·25	−0·25
	Rajputana (East) Central India (West)	0	...	0·01	0·24	−0·23
	Rajputana (West)	0	...	0·01	0·14	−0·13

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Province.	Division.	Number of rainy days. Average actual, March 1900.	Number of rainy days. Average normal, March.	Rainfall. Average actual, March 1900.	Rainfall. Average normal, March.	Rainfall. Variation of actual from normal, March 1900.
				Inches.	Inches.	Inch.
Madras	East Coast (North)	0·9	1·0	0·42	0·54	—0·12
	Do. (do.) (a)	4·0	1·5	1·86	1·08	+0·78
	Hyderabad (South)*	...	...	0·17	...	...
	Madras (Central)	0	0·6	0·01	0·18	—0·17
	East Coast (Central)	0	0·1	0	0·17	—0·17
	Do. (South)	0	0·4	0·02	0·28	—0·26
	Madras (South)	0·4	1·3	0·17	0·95	—0·78

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

There was very little rainfall during the month in Burma. Central and Lower Burma and Arakan received absolutely no rain during the month, but Tenasserim and Upper Burma had light showers during the third and fourth weeks of the month. The following gives data for the five divisions of the province :—

Division.	Rainfall. Average actual, March 1900.	Rainfall. Average normal, March.	Rainfall. Variation of actual from normal, March 1900.	Rainfall. Percentage variation from normal.	Number of rainy days. Average actual, March 1900.	Number of rainy days. Average normal March.
	Inches.	Inch.	Inch.			
Tenasserim	1·06	...	...	...	1·0	...
Lower Burma (Deltaic)	0·01	...	...	...	0	...
Central Burma	0	...	...	...	0	...
Upper Burma	0·49	0·31	+0·18	+58	1·3	...
Arakan	0	...	...	...	0	...

In Assam rain fell constantly throughout the month, but the principal rainfall periods were the 2nd, the 3rd to the 7th, and the 17th to the 31st. The rainfall during the first fall was confined mainly to the Cachar, Sibsagar and Lakhimpur districts, and in the case of the second period to the Cachar, Sylhet and Lakhimpur districts.

During the last and principal period the rainfall was general over the whole province. The following falls exceeding 3 inches in amount in 24 hours were received during the month and illustrate the incidence of rainfall over the province :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cachar	Koyah	4th March	4·00
Sylhet	Dullabcherra	" "	3·75
Do.	Sephinjuri Bil	" "	3·51
Do.	Samanbagh	" "	3·15
Goalpara	Kachugaon	16th "	3·50
Khasia and Jaintia Hills.	Cherra Poonjee	21st March	3·15
Sylhet	Chandpur	22nd "	3·80
Do.	Chandpur	23rd "	4·20
Cachar	Hailakandi	24th "	3·32
Do.	Koyah	" "	3·04
Khasia and Jaintia Hills.	Cherra Poonjee	25th "	4·73
Cachar	Hailakandi	" "	3·47
Sylhet	Dullabcherra	" "	3·38
Do.	Adamtila	" "	3·27
Khasia and Jaintia Hills.	Cherra Poonjee	26th "	6·14

The falls of rain in the majority of cases appear to have accompanied thunderstorms, and severe hailstorms seem to have occurred over different parts of the province.

The following table gives comparative data of the total rainfall of the month for each of the eight plains districts of the province :—

District.	Rainfall. Average actual, March 1900.	Rainfall. Average normal, March.	Rainfall. Variation of actual from normal, March 1900.	Rainfall. Percentage variation from normal.	Number of rainy days. Average actual, March, 1900.	Number of rainy days. Average normal, March.
	Inches.	Inches.	Inches.			
Sylhet	15·62	6·49	+9·13	+141	14·2	7·5
Cachar	10·98	8·31	+2·67	+ 32	14·0	8·5
Goalpara	3·34	1·92	+1·42	+ 74	5·5	3·0
Kamrup	3·80	2·28	+1·52	+ 67	7·8	4·0
Darrang	4·44	2·58	+1·86	+ 72	8·9	5·1
Nowgong	3·44	2·43	+1·01	+ 42	8·8	5·5
Sibsagar	6·70	4·52	+2·18	+ 48	12·0	7·8 ?
Lakhimpur	5·60	5·52	+0·08	+ 1	12·0	9·9

It will be noticed that both the rainfall and the number of rainy days were in excess of the normal.

There was practically no rain over Bihar during the month. In South-West Bengal there were light showers on the 7th and 11th and again on the 22nd and between the 26th and the 30th. The falls were not heavy and exceeded an inch only at the following stations :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MIDNAPORE . . .	Midnapore . . .	26th March	1·05
BANKURA . . .	Raipur . . .	27th " .	2·00
" . . .	Vishnupur . . .	" " .	1·29

In North Bengal there were scattered showers during the latter half of the month, the falls exceeding one inch in amount in 24 hours having been as follows :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DARJEELING . . .	Mungpoo . . .	19th March	1·67
JALPAIGURI . . .	Alipore Duar . .	21st " .	1·82
RAJSHAHI . . .	Nator . . .	29th " .	2·53
DARJEELING . . .	Mungpoo . . .	" " .	1·48
" . . .	Darjeeling . . .	" " .	1·07

In East Bengal there were heavy showers in the Mymensing district on the 19th, the largest amounts recorded having been as follows :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MYMENSING . .	Mymensing . .	19th March	7·50
" . .	Jamalpur . . .	" " .	2·98
" . .	Sherepur Town . .	" " .	2·45
" . .	Durgapur . . .	" " .	1·80
" . .	Nalitabari . .	" " .	1·80
" . .	Netrokona . . .	" " .	1·04

Further showers occurred in this division on the 21st, 22nd and 23rd and again on the 29th and 30th. The following were the largest falls in 24 hours reported on these occasions :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
FARIDPUR . .	Madaripur . . .	21st March	2·10
NOAKHALI . .	Noakhali . . .	22nd " .	2·28
" . .	Fenny . . .	" " .	2·23
TIPPERA . .	Nasirnagar . . .	23rd " .	2·20
MYMENSING . .	Netrokona . .	28th " .	3·75
DACCA . .	Manikganj . .	29th " .	2·25
" . . .	Narayanganj . .	" " .	2·02

There were showers in Orissa between the 7th and 11th and again during the last week of the month but the amounts were generally small. The total rainfall of the month was about normal. In Chota Nagpur there were some showers between the 26th and the 30th. The following statement shows the distribution and variation from the normal of the rainfall of the month in Bengal :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, March 1900.	Average normal, March	Variation of actual from normal, March 1900.	Percentage variation from normal.	Average actual, March 1900.	Average normal, March.
	Inches.	Inches.	Inches.			
Eastern Bengal . .	2·50	2·64	−0·14	− 5	2·7	3·3
Deltaic " . .	0·45	1·68	−1·23	− 73	1·2	2·6
Central " . .	0·18	1·03	−0·85	− 82	0·3	1·8
North " . .	0·78	1·23	−0·45	− 37	1·9	1·8
Bengal Hills . .	1·95	1·84	+0·11	+ 6	4·9	3·2
Orissa . .	1·31	1·21	+0·10	+ 9	2·3	2·1
Chota Nagpur . .	0·14	0·98	−0·84	− 86	0·5	1·9
South Bihar . .	0·01	0·45	−0·44	− 96	0	0·9
North Bihar . .	0·05	0·46	−0·41	− 89	0·1	0·9

The month was practically rainless over the greater part of the North-Western Provinces, but there were some showers in the western division on the 21st; in the submontane division on the 19th, 20th and 21st and in the north-east division on the 22nd. The amounts with one exception were less than 1 inch in 24 hours, and, as will be seen from the table below, the average actual rain-

fall of the divisions was generally less than one-tenth of an inch:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, March 1900.	Average normal, March.	Variation of actual from normal, March 1900.	Percentage variation from normal.	Average actual, March 1900.	Average normal, March.
	Inch.	Inches.	Inches.			
North-Western Provinces (East).	0·01	0·26	—0·25	— 96	0	0·7
Oudh (South).	0	0·30	—0·30	—100	0	0·7
" (North).	0·04	0·43	—0·39	— 91	0	0·9
North-Western Provinces (Central).	0·01	0·28	—0·27	— 96	0	0·7
North-Western Provinces (West).	0·06	0·42	—0·36	— 86	0·3	1·1
North-Western Provinces (Submontane East).	0·07	0·29	—0·22	— 76	0·3	0·7
North-Western Provinces (Submontane West).	0·12	0·88	—0·76	— 86	0·4	1·8
North-Western Provinces (Hills).	0·50	2·10	—1·60	— 76	1·0	3·6

Rain fell in all the divisions of the Punjab. In the south there were light showers on the 19th and 20th; in the central and submontane divisions on the 19th, 20th and 21st, while in the hill, north-west and west divisions there were showers between the 1st and the 4th, the 18th and the 21st and the 27th and the 31st. The rainfall between the 18th and the 21st was the heaviest reported during the month, and on this occasion the following amounts exceeding 1 inch in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KOHAT	Fort Lockhart	19th March	1·30
"	Thal	" "	1·25
RAWALPINDI	Murree	20th "	2·53
GURDASPUR	Dalhousie	" "	1·93
HAZARA	Abbottabad	" "	1·15
PESHAWAR	Parachinar	" "	1·02
JHELUM	Jhelum	21st "	1·87
RAWALPINDI	Gujar Khan	" "	1·25
"	Kahuta	" "	1·03
GUJRANWALA	Wazirabad	" "	1·17
HAZARA	Abbottabad	" "	1·13
KANGRA	Palampur	" "	1·12
SIALKOT	Pasrur	" "	1·11

The total rainfall of the month was less than usual in all divisions as is shown by the following table of comparative data:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, March 1900.	Average normal, March.	Variation of actual from normal, March 1900.	Percentage variation from normal.	Average actual, March 1900.	Average normal, March.
	Inches.	Inches.	Inches.			
South-East Punjab	0·12	0·47	—0·35	—74	0·5	0·9
South Punjab	0·21	0·49	—0·28	—57	0·9	0·9
Central Punjab	0·45	0·89	—0·44	—49	1·3	1·5
Punjab Submontane	0·46	1·14	—0·68	—60	1·5	1·7
Punjab Hills	1·57	3·45	—1·88	—54	4·0	4·4
North Punjab	1·43	1·98	—0·55	—28	3·1	3·2
West Punjab	0·27	0·54	—0·27	—50	1·0	1·0

The Baluchistan rainfall was similar in distribution to that of the Punjab. There were showers between the 18th and the 20th and again between the 26th and the 31st, the fall on both occasions extending over the greater part of the province. The amounts were generally small averaging between a quarter and half an inch, but the total amount for the month was nearly normal. The following gives comparative data for the stations at which the total rainfall of the month exceeded 1 inch:—

Station.	Rainfall.			
	Actual, March 1900.	Normal, March.	Variation of actual from normal, March 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Pishin	1·15	1·61	—0·46	—29
Kuchlak	1·08	1·44	—0·36	—25
Fort Sandeman	2·20	2·12	+0·08	+ 4
Bostan	1·03	1·39	—0·36	—19
Sarawan	1·17	...	...	...
Khanai	1·41	1·41	0	0
Kachh	1·10	2·06	—0·96	—46
Mangi	1·06	1·18	—0·12	—10
Dirgi	1·31	1·02	+0·29	+28
Khost	1·49	0·84	+0·65	+77
Shahrig	1·58	1·15	+0·43	+37
Nasak	1·25	1·12	+0·13	+12
Loralai Hospital	1·90	1·35	+0·55	+41
Loralai Staff Office	1·78	...	...	...

In Kashmir there was a burst of showery weather between the 1st and the 4th, the largest amounts recorded in 24 hours having been as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
Kashmir	Pattan	2nd March	2·12
"	Haripore	" "	1·52
"	Vantipore	" "	1·22
"	Ramban	" "	0·89
"	Utar Machhipore	" "	0·80
"	Kishtwar	3rd "	4·98
"	Domel	" "	0·87
"	Dras	" "	0·80
"	Dras	4th "	0·70

Rain and snow recommenced on the 17th and continued till the 21st. The falls on this occasion were in some cases very heavy, as is shown by the following data giving the heaviest amounts in 24 hours :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
Kashmir	Haripore	18th March	1·02
"	Utar Machhipore	19th "	1·86
"	Nagam	" "	1·61
"	Haripore	" "	1·57
"	Pattan	" "	1·23
"	Pattan	20th "	6·87
"	Vantipore	" "	3·34
"	Sri Protap Singh Pora	" "	1·84
"	Domel	" "	1·56
"	Kishtwar	" "	1·25
"	Srinagar	21st "	1·52

There were also a few scattered showers towards the close of the month, but the amounts were small. There are no averages available for this province, but probably the rain and snowfall were heavier than usual.

Rajputana and Central India, with the exception of a few light unimportant showers about the 20th, were rainless throughout the month.

There were a few scattered showers in the east and central divisions of the Central Provinces between the 21st and the 27th, but the only amount of any consequence was a fall of 1·60 inches at Armori in the Chanda district on the 26th.

The rainfall of the Bombay Presidency was confined to a few showers in the Konkan, Karnatak and the Deccan divisions. In the Konkan the only shower of any importance was a fall of 1·18 inches at Ratnagiri on the 13th. In the Karnatak there were a few showers on the 11th and on the 31st, but in the Deccan where the rain also fell about the 11th and 31st, the showers were heavier and the following amounts exceeding one inch in 24 hours were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
POONA	Baramati	11th March	1·40
SATARA	Vita	" "	1·22

In the north Deccan and Gujarat there was absolutely no rain during the month and in Sind only one or two trifling showers. The following gives comparative data for the different divisions of the Presidency :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, March 1900.	Average normal, March.	Variation of actual from normal, March 1900.	Percentage variation from normal.	Average actual, March 1900.	Average normal, March.
	Inch.	Inch.	Inch.			
Konkan	0·05	0·07	−0·02	− 29	0·1	0·2
Bombay Deccan	0·26	0·19	+0·07	+ 37	0·6	0·4
Khandesh	0	0·03	−0·03	−100	0	0·1
Gujarat	0	0·01	−0·01	−100	0	0
Kathiawar and Cutch	0	0·05	−0·05	−100	0	0·1
Sind	0·03	0·28	−0·25	− 89	0·1	

Over the greater part of Madras the month was rainless, but between the 8th and the 10th and again between the 25th and 29th there were showers in the north division of

the East coast. The falls exceeding one inch in 24 hours on these occasions were as follows :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GANJAM	Surada	8th March	0·86
VIZAGAPATAM	Bobbili	" "	0·51
	Srungavarapukota	9th "	1·23
	Koraput	" "	0·77
GANJAM	Ramagiri	10th "	1·68
VIZAGAPATAM	Malkanagiri	" "	0·85
GANJAM	Surada	25th "	2·40
VIZAGAPATAM	Saluru	" "	2·00
	Pottanghi	26th "	1·10
GANJAM	Udayagiri	" "	0·85
VIZAGAPATAM	Malkanagiri	" "	0·84
GODAVARI	Prattipadu	29th "	1·30

In the central and south divisions of the East coast as well as in south-central and central Madras there was practically no rain, but in south Madras and Travancore there were a few light showers at intervals during the month. The rainfall over the Madras Presidency is, as a rule, very small during March, but even this small amount was not reached except in the case of Ganjam. The following gives data for the different collectorates of the Madras Presidency :—

DISTRICT.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, March 1900.	Average normal, March.	Variation of actual from normal, March 1900.	Percentage variation from normal.	Average actual, March 1900.	Average normal, March.
	Inches.	Inch.	Inch.			
Ganjam	1·05	0·69	+0·36	+ 52	2·5	1·3
Vizagapatam	0·50	0·75	—0·25	— 33	1·0	1·2
Godavari	0·10	0·37	—0·27	— 73	0·2	0·7
Kistna	0	0·29	—0·29	—100	0	0·6
Nellore	0	0·17	—0·17	—100	0	0·1
Chingleput	0	0·16	—0·16	—100	0	0·1
Madras	0	0·39	—0·39	—100	0	1·0
North Arcot	0	0·23	—0·23	—100	0	0·3
South "	0	0·23	—0·23	—100	0	0·1
Tanjore	0·07	0·40	—0·33	— 83	0·1	0·8
Trichinopoly	0	0·40	—0·40	—100	0	0·7
Madura	0·21	0·80	—0·59	— 74	0·4	1·0
Tinnevelly	0·16	1·32	—1·16	— 88	0·4	1·9
Malabar	0·06	0·77	—0·71	— 92	0	1·4
South Canara	0	0·13	—0·13	—100	0	0·2
Salem	0·07	0·43	—0·36	— 84	0·1	0·8
Coimbatore	0·13	0·60	—0·47	— 78	0·2	0·9
Nilgiris	0	1·52	—1·52	—100	0	2·2
Cuddapah	0	0·18	—0·18	—100	0	0·5
Anantapur	0	0·14	—0·14	—100	0	0·6
Bellary	0·03	0·20	—0·17	— 85	0·1	0·7
Kurnool	0	0·22	—0·22	—100	0	0·5

At the stations in the Persian area the rainfall was apparently not heavy, thus at Baghdad there were four rainy days with a total rainfall of 1·03 inches, at Bushire one rainy day with a total fall of 0·02 inch while Jask had no rain throughout, but nearer India the fall was heavier. Meshed reported two rainy days and a total rainfall of 1·00 inch; Kabul five rainy days with a total rainfall of 3·50 inches; Chitral five rainy days with a total rainfall of 2·49 inches and Parachinar nine rainy days with a rainfall of 3·30 inches.

Turning next to the South-East Trades region the following gives the rainfall data for the three stations of Mauritius, Zanzibar and Seychelles for the three months January, February and March of the past and of the present year :—

		1899. Inches.	1900. Inches.
MAURITIUS	January	2·18	3·35
	February	7·24	4·79
	March	12·13	9·15
ZANZIBAR	January	1·34	4·45
	February	0·02	4·51
	March	6·29	7·78
SEYCHELLES	January	19·01	18·53
	February	0·35	13·45
	March	11·61	9·25

The above shows that there is no similarity between the rainfall amounts of the two years and appears to show that the abnormal conditions which determined such heavy rainfall to the south of the South-East Trades area last year are not in operation at the present time. The normal rainfall of these three stations for the three months is :—

Month.	Mauritius.	Zanzibar.	Seychelles.
	Inches.	Inches.	Inches.
January	5·46	2·95	18·56
February	9·79	2·98	12·34
March	6·44	5·15	12·46

Tab

Abstract of Observations taken at 8 A.M. at 219 Stati

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	I.—Burma Coast and Bay Islands.				+·010								93·1	+0·1	73·8	+2·2	83·5	+1·2	19·4				
1	Tenasserim and Bay Islands.	Port Blair	61	29·931	+·023	29·923	30·000	6th	29·855	14th	·145	80·7	91·7		77·5*		84·7*		14·2	94·6	31st	73·2	4th
		Mergui	96	29·879	+·012	29·905	29·946	11th	29·815	2 days	·131	80·5	90·3	−1·0	74·1	+2·6	82·2	+0·8	16·2	94·1	2 days	70·4	2nd
		Tavoy	26	29·957	+·008	29·915	30·032	11th	29·888	16th	·144	76·1	93·1	+0·1	71·5	+1·4	82·3	+0·8	21·6	96·7	27th	60·5	2nd
		Moulmein	94	29·886	−·002	29·917	29·961	11th	29·822	16th	·139	80·0	95·3	+1·4	73·8	+1·6	84·6	+1·5	21·4	98·4	27th	69·8	1st
2	Lower Burma	Rangoon	41	29·938	+·007	29·915	30·012	11th	29·867	20th	·145	75·2	97·3	+1·0	72·1	+1·2	84·7	+1·1	25·2	102·1	28th	66·8	12th
		Bassein	27	29·951	+·016	29·913	30·019	10th	29·869	20th	·150	77·7	94·0	−0·3	73·4	+3·2	83·7	+1·5	20·6	98·2	22nd	69·7	4th
		Diamond Island	41	29·943	+·009	29·919	30·020	11th	29·878	20th	·142	79·8	84·5	−1·2	77·7	+3·0	81·1	+0·9	6·8	87·6	31st	75·7	8th
5	Arakan	Akyab	20	29·960	+·004	29·923	30·046	11th	29·861	20th	·185	75·7	89·4	+0·5						94·4	28th		
3	Central Burma	Toungoo	182	29·773	+·010	29·900	29·849	10th	29·701	20th	·148	76·0	98·7	+1·0	70·0	+2·5	84·4	+1·8	28·7	103·7	5 days	64·2	2 days
	II.—Burma Inland				+·008								95·2	−0·1	66·0	+1·2	80·7	+0·6	29·2				
3	Central Burma	Thayetmyo†	134	29·824	−·001	29·902	29·813	11th	29·731	20th	·182	75·5	99·3	+0·4	66·8	+2·9	83·1	+1·7	32·5	102·9	20th	61·5	2 days
4	Upper Burma	Minbu	165	29·788	?	29·899	29·901	12th	29·690	20th	·211	76·9	99·3	0	70·7	+1·9	85·0	+1·0	28·6	103·6	3 days	62·1	13th
		Yamethin	657	29·287	?	29·900	29·381	11th	29·199	20th	·182	77·5	99·4	+1·0	69·1	+1·4	84·3	+1·2	30·3	103·5	3 days	61·2	13th
		Mandalay	250	29·717	?	29·920	29·841	12th	29·600	19th	·241	76·5	97·3	+0·2	69·0	+1·4	83·2	+0·8	28·3	103·1	21st	63·1	1st
		Kindat	377	29·604	+·017	29·950	29·745	12th	29·496	20th	·249	66·8	88·9	−1·1	60·8	+0·2	74·9	−0·5	28·1	93·3	2 days	52·8	14th
		Bhamo	381	29·604	?	29·954	29·741	12th	29·485	24th	·256	66·1	87·1	−1·2	59·8	−0·5	73·5	−0·9	27·3	92·6	17th	50·2	10th
4(a)	Burma Hill Stations.	Maymyo										61·5	81·4		45·6		63·5		35·8	86·0	28th	40·0	3 days
		Taunggyi										68·0			53·0	−0·3						48·0	12th
		Lashio		27·134	+·010		27·230	12th	27·054	21st	·176	64·5	85·9	+0·7	55·6	0	70·8	+0·4	30·3	91·0	22nd	50·0	1st
	III.—Assam				+·012								82·7	−1·7	62·5	−0·8	72·6	−1·3	20·2				
7	Surma	Silchar	104	29·885	+·021	29·944	30·053	11th	29·775	20th	·278	70·3	85·6	?	64·3	?	75·0	?	21·3	89·5	28th	58·4	4 days
9	Brahmaputra	Sibsagar	333	29·644	+·008	29·947	29·809	11th	29·529	20th	·280	63·9	77·2	−2·0	60·2	+0·1	68·7	−1·0	17·0	85·3	13th	52·9	3 days
		Dhubri	115	29·816	+·007	29·891	30·009	11th	29·676	20th	·333	67·9	85·2	−1·3	62·9	−1·6	74·1	−1·5	22·3	91·7	15th	53·3	9th
	IV.—Bengal and Orissa				+·002								90·9	+0·9	68·3	+1·4	79·6	+1·2	22·6				
6	East Bengal	Chittagong	87	29·876	−·001	29·912	30·015	11th	29·746	20th	·269	74·9	88·3	+2·1	69·3	+1·6	78·8	+1·9	19·0	93·5	13th	60·1	12th
		Noakhali	43	29·911		29·901	30·057	11th	29·752	20th	·305	76·7	87·4		66·9		77·2		20·5	94·3	14th	53·0	11th
		Comilla	36	29·920		29·905	30·090	11th	29·782	20th	·308	74·7	89·8		67·7		78·8		22·1	92·3	6 days	57·0	10th
		Sirajganj	49	29·865		29·865	30·063	11th	29·678	20th	·385	73·1	92·5		66·0		79·3		26·5	97·8	26th	52·4	9th
		Narayanganj	26	29·917	0	29·892	30·086	11th	29·775	20th	·311	75·6	89·7	−0·3	70·1	+1·7	79·9	+0·7	19·6	92·6	27th	59·3	10th
		Barisal	13	29·934	+·002	29·892	30·105	11th	29·776	20th	·329	76·4**	89·8	+1·9	71·1	+1·9	80·5	+1·9	18·7	94·3	27th	59·2	10th
		Mymensingh	59	29·878	−·006	29·890	30·051	11th	29·722	20th	·329	70·9	86·5	0	65·7	+1·6	76·1	+0·8	20·8	92·2	15th	54·1	10th
10	Deltaic Bengal	Faridpur	46	29·890		29·885	30·074	11th	29·737	20th	·337	73·5	91·0		67·4		79·2		23·6	97·3	31st	55·5	9th & 10th
		Jessore	33	29·898	−·001	29·878	30·087	11th	29·727	20th	·360	76·2	90·6	−1·9	70·5	+2·2	80·6	+0·2	20·1	97·5	31st	59·6	1st
		Calcutta	21	29·911	0	29·878	30·107	11th	29·741	20th	·366	77·2	94·0	+3·6	71·4	+1·7	82·7	+2·7	22·6	101·9	21st	60·7	1st
		Saugor Island	25	29·908	+·001	29·877	30·101	11th	29·731	20th	·370	80·0	88·5	+1·6	76·1	+1·1	82·3	+1·2	12·4	90·9	12th	63·6	12th
		Krishnagar	47	29·890		29·887	30·087	11th	29·718	20th	·369	76·9	94·2		68·2		81·2		26·0	100·9	21st	53·9	9th
		Midnapore	149	29·775		29·873	29·977	11th	29·606	20th	·371	77·3	97·1		71·3		84·2		25·8	105·4	20th & 21st.	62·2	1st

* Mean of 29 days. † Mean of 20 days ** Mean of 19 days.

I.

in India, Burma, etc., in March 1900.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity: Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M.: Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall: Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st March 1900.	Normal rainfall for period, 1st to 31st March.	Variation from normal of period, 1st to 31st March.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				0·70	0·65	+0·04					I.—Burma Coast and Bay Islands.		
	4	7	1			1	6	12	N 23° W.	3·7		4·4	− 16	84	·886	3·9	0			0·03	0·47	− 0·44	0·03	0·47	− 0·44	0·03	Port Blair .	TENASSERIM AND BAY ISLANDS.	1
28	1				1			1	N. 45° W.	3·3	2·9	2·0	+ 45	92	·956	3·4	4·0			3·55	3·37	+ 0·18	3·55	3·37	+ 0·18	1·71	Mergui.		
31									Calm.	0·9				88	·799	0	1·0			2·52	0·92	+ 1·60	2·52	0·92	+ 1·60	2·52	Tavoy.		
		3	9	13	1	4		1	S. 59° E.	3·3	3·7	3·0	+ 23	80	·810	1·9	0	0·36	−0·36	0	0·41	− 0·41	0	0·41	− 0·41	0	Moulmein.		
					1	12	16	2	S. 73° W.	4·8		5·0	− 4	85	·742	3·1	0	0·36	−0·36	0	0·28	− 0·28	0	0·28	− 0·28	0	Rangoon .	LOWER BURMA.	2
3	1	2					1	24	N. 41° W.	6·5		4·9	+ 33	84	·801	2·0	0	0	0	0	0·02	− 0·02	0	0·02	− 0·02	0	Bassein.		
2	7		1				8	13	N. 47° W.	12·6		7·9	+ 59	76	·784	3·3	0	0	0	0	0·01	− 0·01	0	0·01	− 0·01	0	Diamond Island.		
	14	7	7	3					N. 39° E.	2·5		3·7	− 32	85	·767	3·4	0	0·82	−0·82	0	0·42	− 0·42	0	0·42	− 0·42	0	Akyab .	ARAKAN.	5
14		4	1	8	3	1			S. 53° E.	2·5	2·5	2·8	− 11	72	·660	3·8	1	0·18	+0·82	0·17	0·05	+ 0·12	0·17	0·05	+ 0·12	0·17	Toungoo .	CENTRAL BURMA.	3
																				0·34	0·41	−0·07					II.—Burma Inland.		
	2	1			2	2	11	2	N. 87° W.	3·3		5·2	− 37	58	·519	1·4	0	0	0	0	0·05	− 0·05	0	0·05	− 0·05	0	Thayetmyo†	CENTRAL BURMA.	3
	3		1	17	4		1	5	S. 42° E.	6·2	7·4			62	·576	1·6	0			0	0	0	0	0	0	0	Minbu .	UPPER BURMA.	4
6	1	1		14	8			1	S. 33° E.	6·1	6·2			69	·667	1·4	0			0	0·11	− 0·11	0	0·11	− 0·11	0	Yamethin.		
15	4	1		1	6	3		1	S. 23° W.	4·7	4·7			57	·531	1·1	0			0·01	0·21	− 0·20	0·01	0·21	− 0·20	0·01	Mandalay.		
18	8	2		2				1	N. 14° E.	2·0	2·1			83	·552	2·8	4			0·87	1·27	− 0·40	0·87	1·27	− 0·40	0·43	Kindat.		
21	1	7	2						N. 33° E.	2·7	3·2			81	·522	6·1	3			1·13	0·79	+ 0·34	1·13	0·79	+ 0·34	0·48	Bhamo.		
17		1				11	1	1	S. 56° W.					96	·539												Maymyo .	BURMA HILL STATIONS.	1(a)
	1	1			6	14	8	1	S. 53° W.					60	·415	2·2	1			0·17	0	+ 0·17	0·17	0	+ 0·17	0·17	Taunggyi.		
														67	·409	3·7	1			0·29	0·77	− 0·48	0·29	0·77	− 0·48	0·14	Lashio.		
																				6·98	5·24	+1·74					III.—Assam.		
11		2	9	2					E	2·5	4·3	3·3	+ 30	85	·643	5·1	16	10·00	+6·00	12·08	8·71	+ 3·37	12·08	8·71	+ 3·37	2·08	Silchar‡ .	SURMA.	7
7	9	13	1					1	N. 26° E.	4·4	4·0	2·8	+ 43	93	·542	7·1	12	9·96	+2·04	4·73	5·07	− 0·34	4·73	5·07	− 0·34	1·01	Sibsagar .	BRAHMAPUTRA.	9
		6	20	1	1	2	1		N. 87° E.	6·9	8·1	6·3	+ 29	79	·546	3·6	50	2·07	+2·93	4·13	1·93	+ 2·20	4·13	1·93	+ 2·20	2·10	Dhubri.		
																				1·25	1·52	−0·27					IV.—Bengal and Orissa.		
	4	7	2	14	4				S. 73° E.	6·9	6·8	5·8	+ 17	80	·704	3·0*	2	2·92	−0·92	0·36	2·52	− 2·16	0·36	2·52	− 2·16	0·25	Chittagong	EAST BENGAL.	6
	2	4	2	8	4	10		1	S. 15° E.	4·2	3·9			87	·601	4·6	2	3·46	−1·46	4·06	3·40	+ 0·66	4·06	3·40	+ 0·66	2·28	Noakhali.		
2		1	6	1	19	1		1	S. 18° E.	7·2				79	·675	4·0	3	4·22	−1·22	2·73	3·16	− 0·43	2·73	3·16	− 0·43	1·34	Comilla.		
2	1	3	4	5	11	4		1	S. 23° E.	4·0	4·2			82	·683	4·2	2	2·40	−0·40	1·00	1·38	− 0·38	1·00	1·38	− 0·38	0·85	Sirajganj.		
1	1	2	1	8	7	7	4		S. 4° W.	6·9		4·7	+ 47	84	·755	5·7‖	2	3·50	−1·50	2·26	2·67	− 0·41	2·26	2·67	− 0·41	2·07	Narayanganj		
										6·9¶				83**	·764**	3·3§	1	3·27	−2·27	0·17	2·52	− 2·35	0·17	2·52	− 2·35	0·13	Barisal.		
11			8	10	1	1			S. 57° E.	0·5	0·5			84	·644	6·3†	6	3·54	+2·46	10·67	2·02	+ 8·65	10·67	2·02	+ 8·65	7·50	Mymensingh.		
11	1		1	3	12	3			S. 4° E.	2·3	2·8			89	·753	2·4††	3	3·73	−0·73	1·29	2·60	− 1·31	1·29	2·60	− 1·31	0·72	Faridpur .	DELTAIC BENGAL.	10
17				3	8	3			S	2·0	2·0	3·2	− 38	84	·773	3·3‡‡	4	3·27	+0·73	1·49	2·15	− 0·66	1·49	2·15	− 0·66	0·54	Jessore.		
8	2	1	1	3	4	11	1		S. 24° W.	4·2		5·5	− 24	81	·765	1·9	0	2·36	−2·36	0·12	1·57	− 1·45	0·12	1·57	− 1·45	0·04	Calcutta.		
1	2	2			13	11	1	1	S. 25° W.	16·3		12·3	+ 32	82	·840	3·0	2	1·92	+0·08	0·40	1·24	− 0·84	0·40	1·24	− 0·84	0·20	Saugor Island.		
	1	1	1	5	11	7	3	2	S. 14° W.	4·1				74	·690	2·6	1	2·00	−1·00	0·25	1·33	− 1·08	0·25	1·33	− 1·08	0·25	Krishnagar.		
5	5		1	1	16	2	1		S. 4° W.	2·5	3·2			72	·681	1·1§	4	2·42	+1·58	1·96	1·52	+ 0·44	1·96	1·52	+ 0·44	1·16	Midnapore.		

§ Mean of 3 days. ‖ Mean of 21 days. ¶ Mean of 15 days. ‡ Winds for 24 days. †† Mean of 27 days.

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Abstract of Observations taken at 8 A.M., at 219 Stati

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
11	Central Bengal	Bankura	298	29·599		29·853	29·830	11th	29·430	20th	·370	76·4	97·1		69·8		83·5		27·3	104·3	21st	60·3	8th
		Raniganj	334	29·579		29·869	29·792	11th	29·406	20th	·386	75·2	97·5		69·0		83·3		28·5	104·0	29th	59·9	9th
		Burdwan	99	29·826	0	29·674	30·026	11th	29·648	20th	·378	75·1	95·0	+1·4	70·1	+1·6	82·6	+1·5	24·9	102·9	21st	58·8	9th
		Naya Dumka	489	29·419		29·875	29·628	11th	29·250	20th	·378	76·4	95·0		66·5		80·8		28·5	101·5	21st	56·1	9th
		Berhampore	67	29·853	−·001	29·869	30·068	11th	29·682	20th	·386	74·3	88·9	P	67·6	+1·6	78·3	P	21·3	92·2	16th	58·2	3 days
		Rampur Boalia.	70	29·820P		P29·840	30·018	11th	29·646	20th	·372	75·4	92·7		66·6		79·7		26·1	99·1	31st	54·5	9th
		Malda	72	29·832		29·858	30·029	11th	29·670	20th	·359	71·6	90·5		61·7		76·1		28·8	97·2	31st	51·0	9th
		Bogra	61	29·851		29·866	30·043	11th	29·681	20th	·362	70·9	92·0	+2·5	64·5	+0·9	78·3	+1·7	27·5	99·2	26th	53·2	9th
12	North Bengal	Dinajpur	123	29·797	+·011	29·879	29·997	11th	29·649	20th	·348	67·7	89·4	+0·2	60·9	−0·6	75·2	−0·2	28·5	96·3	26th	48·5	9th
		Rangpur	123	29·808		29·889	29·993	11th	29·663	20th	·330	69·5	87·9		60·9		74·4		27·0	94·8	26th	49·7	9th
		Jalpaiguri	284	29·646	+·015	29·898	29·834	11th	29·512	20th	·322	66·8	85·2	+0·2	61·1	+1·9	73·2	+1·1	24·1	90·9	27th	52·1	2 days
		Cooch Behar	156	29·784		29·901	29·973	11th	29·654	20th	·319	67·5	84·0		62·1		73·1		21·9	89·2	14th	52·5	8th
17	North Bihar	Purnea	125	29·807	?	29·890	30·022	11th	29·651	20th	·371	68·7	90·3	+0·1	60·8	+0·4	75·6	+0·3	29·5	98·9	27th	50·3	7th
14	Orissa	Balasore	46	29·885	+·010	29·878	30·077	11th	29·720	20th	·357	76·4	92·0	+0·9	70·7	+0·9	81·4	+0·9	21·3	100·0	20th	60·1	12th
		False Point.	21	29·921	0	29·884	30·112	11th	29·761	20th	·351	80·2	87·4	−0·2	74·8	+2·6	81·1	+1·2	12·6	90·5	2 days	62·5	13th
		Cuttack	80	29·854	−·002	29·878	30·045	11th	29·697	20th	·348	78·7	98·7	+1·9	74·8	+2·1	86·7	+2·0	23·9	106·4	2 days	67·2	14th
		Shortt's Island.	25	29·926		29·894	30·115	11th	29·758	20th	·357	81·3	87·4		76·7		82·1		10·7	90·6	26th	70·8	11th
		Puri	20	29·927		29·890	30·114	11th	29·770	20th	·344	80·0	87·1		77·2		82·2		9·9	89·7	13th	68·1	13th
	V.—Ganjetic Plain and Chota Nagpur.				−·005								93·5	+3·0	64·1	+1·7	78·8	+2·3	29·4				
15	Chota Nagpur.	Hazaribagh.	2,007	27·922	+·007	29·883	28·108	11th	27·779	20th	·329	74·6	91·2	+2·5	66·3	+2·4	78·8	+2·5	24·9	97·2	4 days	56·7	9th
		Ranchi	2,128	27·793	+·014	29·884	27·978	11th	27·655	20th	·323	75·0‡	92·0‡	+4·9‡	66·5‡	+3·4‡	79·3‡	+4·2‡	25·5	97·8	21st	57·3	1st
		Daltonganj.	730P	29·181		29·889	29·395	11th	29·014	20th	·381	68·6	96·1		59·9		78·0		36·2	102·6	3 days	49·6	10th
		Purulia		29·096		29·876	29·305	11th	28·933	20th	·372	74·8	97·1		68·6		82·8		28·5	104·2	21st	60·5	9th
		Chaibassa	760	29·147		29·870	29·357	11th	28·986	20th	·371	75·2	99·4	+5·3	68·9	+1·7	84·2	+3·5	30·5	106·1	21st	59·1	1st
16	South Bihar	Gaya	375	29·537	−·007	29·875	29·741	11th	29·355	20th	·386	75·1	95·5	+1·8	67·7	+1·5	81·6	+1·7	27·8	102·2	29th	59·7	10th
		Dehri	351	29·554		29·867	29·756	11th	29·381	20th	·375	75·6	95·6		68·3		82·0		27·3	102·4	3 days	60·1	9th
		Patna	183	29·721	−·015	29·862	29·929	11th	29·558	20th	·371	73·0	91·7	+0·6	65·4	+1·8	78·6	+1·2	26·3	99·0	28th	55·4	9th
		Arrah	110	29·731		29·879	29·940	11th	29·556	20th	·384	72·2	93·1		63·6		78·4		29·5	100·7	29th	52·3	9th
		Buxar	239	29·663		29·864	29·875	11th	29·491	20th	·384	73·6	93·6		65·4		79·5		28·2	100·5	3 days	55·9	8th
17	North Bihar	Bhagalpur	160	29·712		29·859	29·948	11th	29·578	20th	·370	72·1*	92·6*		64·0*		78·3*		28·6	99·8	27th	55·7	9th
		Darbhanga.	166	29·731	−0·14	29·857	29·937	11th	29·581	20th	·356	69·1	89·6	+1·9	63·6	+0·4	76·6	+1·2	26·0	96·8	27th	54·3	9th
		Muzaffarpur	178	29·728		29·866	29·938	11th	29·570	20th	·368	70·0	89·4		62·2		75·8		27·2	96·2	31st	54·1	10th
		Motihari	224	29·677		29·866	29·898	11th	29·529	20th	·369	68·3	89·6		59·4		74·5		30·2	97·0	31st	48·9	9th
		Chapra	181	29·720		29·860	29·938	11th	29·551	20th	·387	71·2	92·4		64·0		78·2		28·4	100·2	28th	54·1	9th
18	N.-W. Provinces, East.	Benares	267	29·637	−·009	29·866	29·642	11th	29·473	20th	·369	72·7	95·2	+1·9	63·0	+0·7	79·1	+1·3	32·2	101·8	5 days	51·0	9th
		Allahabad	309	29·599	−·011	29·870	29·609	11th	29·437	20th	·372	73·7	94·7	+1·4	62·8	+0·6	78·8	+1·0	31·9	101·6	17th	50·9	9th
22	N.-W. Provinces, (East Sub-montane.)	Gorakhpur	256	29·637	−·001	29·859	29·851	11th	29·477	19th	·374	71·4	91·8	+1·0	63·2	+0·7	77·5	+0·9	28·6	98·6	29th, 31st	53·6	9th
19	South Oudh	Lucknow	368	29·522	−·015	29·853	29·740	11th	29·348	20th	·392	73·0	95·6	+4·2	62·2	+1·6	78·9	+2·9	33·4	102·3	28th	53·2	9th
20	North Oudh	Bahraich	403	P29·472	−·006	29·846	29·696	11th	29·357	19th	·339	71·5	92·4	+4·1	61·8	P	77·1	P	30·6	99·3	29th, 31st	50·5	8th
21	N.-W. Provinces, (Central).	Cawnpore	416	29·481	P	29·862	29·696	11th	29·300	20th	·396	72·8	94·6	+4·7	62·5	+2·3	78·6	+3·5	32·1	101·4	17th	51·0	9th
		Mainpuri	516	29·380	−·002	29·869	29·594	11th	29·181	20th	·413	71·2	94·5	+5·2	61·2	+2·7	77·9	+4·0	33·3	101·3	28th	50·6	9th

—continued.

in India, Burma, etc., in March 1900—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 velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st March 1900.	Normal rainfall for period 1st to 31st March.	Variation from normal of period, 1st to 31st March.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
17	1		2	1	4		6		S. 37° W.	3·3	3·8			57	·524	1·5*	0	1·85	− 1·85	0·04	1·18	− 1·14	0·04	1·18	− 1·14	0·04	Bankura	Central Bengal	11
22	1		1	1		1	3	2	N. 72° W.	1·5				59	·521	1·5	0	1·58	− 1·58	0	0·82	− 0·82	0	0·82	− 0·82	0	Raniganj		
10	2	1	1	2	4	10	1		S. 27° W.	3·5	3·5	3·4	+ 3	78	·361	3·4	1	2·31	− 1·31	0·20	1·58	− 1·38	0·20	1·58	− 1·38	0·16	Burdwan		
7			4	1	5	3	4	7	S. 63° W.	1·1	1·2			51	·464	1·2	0	1·54	− 1·54	0	0·85	− 0·85	0	0·85	− 0·85	0	Naya Dumka		
20					7	4			S. 17° W.	2·0	1·8	3·4	−47	71	·614	1·9	1	1·96	− 0·96	0·52	1·05	− 0·53	0·52	1·05	− 0·53	0·52	Berhampur.		
10	1	2	1	4	4	5	3	1	S. 16° W.	3·4	3·5			70	·623	2·4	0	1·65	− 1·65	0·07	0·93	− 0·86	0·07	0·93	− 0·86	0·07	Rampur Boalia.		
	3	4	2	3	6	3	3	7	N. 72° W.	2·3	2·1			69	·541	2·4	0	1·19	− 1·19	0	0·80	− 0·80	0	0·80	− 0·80	0	Malda		
														80	·622	1·1	0	1·80	− 1·80	0·08	1·06	− 0·98	0·08	1·06	− 0·98	0·08	Bogra		
	2	6	10	3	2	1	6	1	N. 77° E.	4·7	5·4			75	·512	8·6	0	1·23	− 1·23	0·09	0·87	− 0·78	0·09	0·87	− 0·78	0·09	Dinajpur	North Bengal	12
12	2		9		4	1	3		S. 59° E.	3·3*	3·5*			80	·582	1·0†	1	1·57	− 0·57	0·26	1·24	− 0·98	0·26	1·24	− 0·98	0·26	Rangpur		
3	2	6	10	8	1	1			S. 87° E.	2·3	3·0			83	·547	1·5	5	1·96	+ 3·04	0·94	1·50	− 0·56	0·94	1·50	− 0·56	0·22	Jalpaiguri		
5	1	3	8	13	1				S. 70° E.	3·0	3·0			81	·548	3·7	3			2·59	1·63	+ 0·96	2·59	1·63	+ 0·96	1·53	Cooch Behar		
6	1	7	4	1		3	6	3	N. 11° W.	3·4	5·2	3·4	+53	92	·652	1·6	0	0·80	− 0·80	0·09	0·40	− 0·31	0·09	0·40	− 0·31	0·09	Purnea	North Bihar	17
3	5	1			7	12		3	S. 51° W.	6·3				84	·771	3·2*	6	2·96	+ 3·04	4·12	1·45	+ 2·67	4·12	1·45	+ 2·67	2·20	Balasore	Orissa.	14
	2			1	4	15	5	3	S. 60° W.	12·0	11·5	10·9	+ 6	85	·880	6·0	0	1·54	− 1·54	0·11	0·93	− 0·82	0·11	0·93	− 0·82	0·04	False Point.		
12		1			4	11	3		S. 42° W.	3·5		3·5	0	81	·793	3·7	1	1·96	− 0·96	0·81	1·41	− 0·60	0·81	1·41	− 0·60	0·78	Cuttack.		
	2	2			7	17	2	1	S. 41° W.	9·5	11·6			78	·836	3·6	2			1·62	0·80	+ 0·82	1·62	0·80	+ 0·82	1·45	Shortt's Island.		
8	1				1	21			S. 45° W.	13·5	13·4			86	·856	3·9	3	1·00	+ 2·00	0·51	0·61	− 0·10	0·51	0·61	− 0·10	0·22	Puri.		
																				0·07	0·50	−0·46					V.—Gangetic Plain and Chota Nagpur.		
3	1				1	5	18	3	S. 88° W.	8·0	7·2	7·4	− 3	34	·279	1·3	0	1·88	− 1·88	0	0·75	− 0·75	0	0·75	− 0·75	0	Hazaribagh.	Chota Nagpur	15
8	1			1	5	7	3	6	S. 67° W.	4·1	4·9			38‡	·330‡	1·4	1	2·80	− 1·80	0·24	1·38	− 1·14	0·24	1·38	− 1·14	0·24	Ranchi.		
19			3	7		1	1		S. 45° E.	3·7	4·5			51	·376	0·3	0	1·80	− 1·80	0	0·70	− 0·70	0	0·70	− 0·70	0	Daltonganj.		
26	1						2	2	N. 56° W.	0·6*				50	·430	0·6*	1			0·56			0·56			0·53	Purulia.		
18	1				1	5	4	2	S. 77° W.	1·5	1·3			86	·484	1·1	1	2·42	− 1·42	0·27	1·27	− 1·00	0·27	1·27	− 1·00	0·18	Chaibassa.		
6			1	1	10	12	1		S. 23° W.	4·0	3·6	3·3	+ 9	50	·436	1·4	0	1·07	− 1·07	0	0·43	− 0·43	0	0·43	− 0·43	0	Gaya	South Bihar.	
					15	14	2		S. 26° W.	4·5	5·2			40	·339	1·7	0	1·17	− 1·17	0·03	0·69	− 0·66	0·03	0·69	− 0·66	0·03	Dehri.		
		2	6	2	5	6	9	1	S. 29° W.	3·6	4·2	3·4	+ 24	60	·486	0·6	0	0·81	− 0·81	0	0·38	− 0·38	0	0·38	− 0·38	0	Patna.		
2			3	4	2	8	10	2	S. 51° W.	2·6	2·7			54	·426	0·6	0	0·88	− 0·88	0	0·40	− 0·40	0	0·40	− 0·40	0	Arrah.		
1		1		1	3	8	17		S. 67° W.	6·6	6·0			49	·401	0·9	0	1·00	− 1·00	0	0·32	− 0·32	0	0·32	− 0·32	0	Buxar.		
5		7	4	3	3	7	1	1	S. 45° E.	3·5	3·3			59*	·462*	1·2	0	0·76	− 0·76	0·03	0·40	− 0·37	0·03	0·40	− 0·37	0·03	Bhagalpur.	North Bihar.	17
1	1	2	8	4	1	4	7	3	S. 9° E.	3·9		4·5	−13	70	·503	0·5	0	0·76	− 0·76	0·01	0·32	− 0·31	0·01	0·32	− 0·31	0·01	Darbhanga.		
14		2	6	4		1	3	1	S. 81° E.	2·3	2·0			72	·531	0·4		1·00	− 1·00	0	0·40	− 0·40	0	0·40	− 0·40	0	Muzaffarpur		
		10	10		1	6	4		N. 77° E.	3·6				85	·581	0·5	0	0·78	− 0·78	0·08	0·41	− 0·33	0·08	0·41	− 0·33	0·08	Motihari.		
8	1		5	1	3	11	2		S. 20° W.	2·4	2·9			58	·436	1·1	0	0·80	− 0·80	0	0·37	− 0·37	0	0·37	− 0·37	0	Chapra.		
16			1		1	10	3		S. 48° W.	2·5	2·9	4·8	−40	48	·387	1·7	0	0·64	− 0·64	0	0·28	− 0·28	0	0·28	− 0·28	0	Benares	N.-W. Provinces East.	18
8					2	7	11	3	S. 75° W.	4·0	4·6	4·6	0	49	·403	1·0	0	0·73	− 0·73	0	0·32	− 0·32	0	0·32	− 0·32	0	Allahabad.		
7	6	5	1	1	3	2	4	2	N. 15° W.	1·9		3·6	−47	57	·437	1·7	1	0·73	+ 0·27	0·33	0·42	− 0·09	0·33	0·42	− 0·09	0·33	Gorakhpur	N.-W. Provinces (East Sub-montane).	22
5	1				1	6	16	2	S. 83° W.	1·9	2·1	4·0	−48	44	·349	1·4	0	1·00	− 1·00	0	0·37	− 0·37	0	0·37	− 0·37	0	Lucknow	South Oudh.	19
6			10		1		13	1	S. 85° W.	3·3	3·1			61	·476	0·5	0			0	0·47	− 0·47	0	0·47	− 0·47	0	Bahraich	North Oudh.	20
17	2				2	3	5	2	S. 86° W.	2·3				42	·337	0·3	0	0·80	− 0·80	0	0·27	− 0·27	0	0·27	− 0·27	0	Cawnpore	N.-W. Provinces (Central).	21
14	1					1	15		N. 89° W.	2·3	2·3			44	·328	3·9	0			0		− 0·24	0	0·24	− 0·24	0	Mainpuri.		

* Mean of 3 days. † Mean of 25 days. ‡ Mean o 27 days.

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Abstract of Observations taken at 8 A.M. at 219 Statio

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
	VI.—Upper Sub-Himalayas.				−·007								88·5	+4·1	59·5	+3·0	74·1	+3·6	28·9					4
24	N.-W. Provinces, West Sub-montane.	Bareilly	569	29·310	−·006	29·860	29·505	11th	29·135	20th	·370	68·9	91·6	+4·0	60·9	+1·9	76·3	+3·0	30·7	97·4	4 days	52·7	9th & 10th.	4
		Dehra Dun	2,233	27·654	−·015	29·890	27·831	11th	27·542	19th	·289	64·1	83·0	+3·6	57·0	+1·7	70·0	+2·7	26·0	91·0	17th	47·0	8th	4
		Roorkee	887	28·989	−·009	29·876	29·182	11th	28·851	19th	·331	65·6	89·2	+3·4	57·7	+1·3	73·5	+2·4	31·5	96·7	3 days	46·2	8th	5
22	N.-W. P. West.	Meerut	738	29·137	−·014	29·865	29·345	11th	28·981	20th	·364	67·4	91·4	+4·5	60·1	+2·3	75·8	+3·4	31·3	98·6	16th & 19th.	50·3	8th	4
26	South-East Punjab.	Delhi	718	29·166	−·018	29·868	29·385	11th	29·015	20th	·370	70·8	91·0	+2·8	67·0	+4·9	79·0	+3·9	24·0	98·7	16th	57·1	7th	4
28	Central Punjab.	Lahore	702	29·193	−·007	29·892	29·405	6th	28·997	16th	·408	65·7	89·7	+6·0	58·1	+3·3	73·9	+4·7	31·6	101·6	17th	46·0	8th	5
27	South Punjab	Sirsa	662	29·235	−·008	29·883	29·442	10th	29·045	16th	·397	69·6	91·9	+3·2	60·6	+3·5	76·3	+3·4	31·3	101·3	15th	51·1	6th & 7th.	5
		Patiala	818	29·068		29·879	29·281	11th	28·912	16th	·369	68·4	88·3*		59·2		73·8*		29·1	98·5	16th	51·0	8th	4
29	Punjab Sub-montane.	Ludhiana	812	29·070	−·010	29·877	29·282	6th	28·899	16th	·383	66·2	88·9	+3·7	60·5	+3·3	74·7	+3·5	28·4	98·0	16th & 17th.	48·6	8th	4
		Sialkot	830	29·068	+·008	29·900	29·288	6th	28·883	16th	·405	65·8	87·4	+5·6	59·0	+3·7	73·2	+4·7	28·4	98·6	16th	45·6	6th	5
		Umballa	892	28·979	−·003	29·870	29·179	6th	28·838	16th	·341	63·8	88·3	+4·9	59·8	+2·8	74·1	+3·9	28·5	97·0	17th	51·0	3 days	4
31	North Punjab	Rawalpindi	1,676	28·217	+·002	29·929	28·409	6th & 11th.	28·008	16th	·401	61·7	80·7	+4·0	54·5†	+4·1†	68·1†	+4·1†	26·2	95·6	15th	46·1	3rd	4
	VII.—Indus Valley and North-West Rajputana.				−·010								91·6	+4·6	62·9	+3·2	77·3	+3·9	28·7					4
31	North Punjab	Peshawar	1,110	28·838	−·011	29·977	29·044	27th	28·597	17th	·447	62·5	79·2	+2·5	55·1	+3·4	67·2	+3·0	24·1	92·0	15th	43·9	6th	4
32	West Punjab	Khushab	612	29·304	+·015	29·911	29·511	6th	29·074	17th	·437	66·9	87·0	+7·2	59·1	+2·9	73·1	+5·1	27·9	97·3	15th	47·3	7th	5
		Montgomery	558	29·347	−·013	29·891	29·555	6th & 11th.	29·132	16th	·423	69·8	90·9	+5·6	59·3	+3·4	75·1	+4·5	31·6	103·0	16th & 17th.	46·0	8th	5
		D. I. Khan	594	29·353	−·017	29·917	29·556	6th	29·077	17th	·479	65·4	86·5	+2·0	57·2	+1·1	71·9	+1·6	29·3	98·7	15th	46·6	7th	5
		Mooltan	420	29·500	−·017	29·907	29·727	11th	29·256	17th	·471	67·1	91·3	+5·0	61·9	+3·9	76·6	+4·5	29·4	101·4	16th & 17th.	52·4	8th	4
47	Sind	Jacobabad	186	29·719	−·016	29·871	29·945	11th	29·516	17th	·429	72·6	98·5	+7·4	64·3	+4·9	81·4	+6·2	34·2	108·4	15th & 16th.	52·0	6th	5
		Hyderabad	96	29·826	+·003	29·877	30·052	11th	29·630	16th	·422	73·6	98·5	+5·2	66·4	+1·9	82·5	+3·6	32·1	106·2	14th	60·0	4 days	4
		Kurrachee	30	29·928	−·010	29·910	30·116	11th	29·749	16th	·367	74·9	88·9	+1·8	68·7	+2·2	78·8	+2·0	20·2	103·4	12th & 13th.	55·2	11th	4
51	West Rajputana	Bikaner	771	29·123	−·017	29·879	29·338	11th	28·949	16th	·389	74·1	94·3	+4·9	67·8	+4·7	81·1	+4·8	26·5	102·1	15th	56·1	7th	4
		Pachpadra	380	29·550		29·897	29·754	11th	29·403	19th	·351	73·3	97·4		64·5		80·9		32·9	105·3	13th	54·1	8th	5
		Jodhpur	782	29·125		29·905	29·336	11th	28·980	19th	·356	74·2	95·6		68·0		81·8		27·6	102·2	14th	58·2	9th	4
	VIII.—East Rajputana, Central India and Gujarat.				+·011								95·0	+3·0	66·4	+3·3	80·7	+3·2	28·7					4
50	East Rajputana	Jaipur	1,431	28·500	+·005	29·919	28·714	11th	28·329	20th	·385	72·8	94·7	+4·7	64·9	+4·0	79·8	+4·4	29·8	101·2	16th	53·0	9th	4
		Kotah	819	29·099		29·298		11th	28·949	20th	·349	78·3	96·8		71·5		84·2		25·3	102·5	15th	60·0	9th	4
		Sambhar	1,254	28·669	+·011	29·917	28·879	11th	28·510	20th	·369	70·3	93·7	+5·5	63·5	+4·2	78·7	+4·9	30·2	100·0	19th	51·9	9th	4
		Ajmer	1,611	28·318	−·010	29·925	28·532	11th	28·176	20th	·356	71·8	93·1	+3·8	66·0	+6·8	79·6	+5·3	27·1	99·4	19th	52·8	9th	4
		Udaipur	1,925	28·025		29·926	28·216	11th	27·909	20th	·307	75·0	92·1		65·4		78·8		26·7	98·0	14th & 15th.	55·7	9th	4
		Deesa	466	29·496	+·014	29·927	29·652	11th	29·391	19th	·261	75·2	98·2	+2·3	66·1	+2·2	82·2	+2·3	32·1	106·1	14th	58·1	5th	4
46	Kathiawar and Cutch.	Bhuj*	395	29·578	+·018	29·935	29·724	11th	29·450	17th	·274	75·6	95·8	+1·9	66·8	+0·9	81·3	+1·4	29·0	103·8	14th	59·0	4th & 5th.	4
		Jamnagar	61	29·929		29·936	30·058	11th	29·804	16th	·254	75·2	92·2		65·5		78·8		26·7	102·1	12th & 13th.	58·3	7th	4
		Rajkot	429	29·545	+·013	29·937	29·664	11th	29·424	16th	·240	73·1	97·1	+0·8	63·5	+0·9	80·3	+0·9	33·6	104·9	15th	57·0	5 days	4
		Veravai		29·962	+·027	29·922	30·064	6th	29·878	14th	·186	74·4	84·8	−1·3	67·6	P	76·2	P	17·2	99·6	12th	58·8	6th	4
		Bhavnagar Para	35	29·942	+·016	29·923	30·058	6th	29·856	16th	·202	75·4	98·6	P	66·3‡	P	82·3‡	P	32·3	105·1	14th	57·2	6th	4
49	Central India	Nowgong	757	29·167	−·002	29·899	29·371	11th	29·002	20th	·369	72·5	94·9	P	63·3	+2·5	79·1	P	31·6	101·5	28th	51·1	9th	5
		Indore	1,823	28·140	+·028	29·931	28·305	11th	28·031	20th	·274	75·4	95·0	+2·4	62·7	+2·1	78·9	+2·3	32·3	99·3	15th & 16th.	53·1	7th	4
		Neemuch	1,630	28·331	+·037	29·940	28·514	11th	28·209	20th	·305	74·7	94·1	+2·2	65·0	+3·4	79·6	+2·8	29·1	103·0	21st	55·1	9th	4
45	Gujarat	Surat	39	29·946	+·010	29·928	30·039	6th	29·866	14th	·173	77·7	99·1	+3·0	68·0	+2·3	83·5	+2·7	31·1	106·1	12th & 13th.	61·8	3rd	4
		Ahmedabad	164	29·836	P	29·950	29·981	11th	29·719	16th	·272	76·7	99·4	+2·9	69·4	+1·8	84·4	+2·4	30·0	106·3	3 days	61·6	3rd	4

* Mean of 30 days. Mean of 21 days.

I—*continued.*

in India, Burma, etc., in March 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st March 1,00.	Normal rainfall for period, 1st to 31st March.	Variation from normal of period, 1st to 31st March.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				0·32	0·89	−0·58					VI.—Upper Sub-Himalayas.		
23						1		7	N. 53° W.	2·5	2·4	4·3	−44	50	·346	1·8	1	1·82	−0·82	0·3	0·94	−0·58	0·36	0·94	−0·58	0·29	Bareilly	N.-W. Provinces, West Sub-montane.	24
20	1	3				3	4		N. 76° W.	7		2·3		51	·306	2·5	0	2·64	−2·64	0·03	1·07	−1·04	0·03	1·07	−1·04	0·03	Dehra Dun.		
27				2				2	Calm.	3·5		2·9	+21	51	·321	1·8	0	1·82	−1·82	0·09	0·72	−0·63	0·09	0·72	−0·63	0·06	Roorkee.		
17				1		2	9	2	S. 86° W.	2·0	2·3	2·7	−15	53	·365	1·5	0	1·55	−1·55	0·10	0·77	−0·67	0·10	0·77	−0·67	0·07	Meerut	N.-W. Provinces, West.	22
5	4		2		1		8	11	N. 52° W.	3·5	3·3	3·9	−15	38	·285	2·4	1	1·18	−0·18	0·55	0·56	−0·01	0·55	0·56	−0·01	0·55	Delhi	South-East Punjab.	26
14	6	3	2	2			1	3	N. 15° E.	2·4		3·1	−23	57	·368	3·2	1	1·36	−0·36	0·19	0·73	−0·54	0·19	0·73	−0·54	0·10	Lahore	Central Punjab	28
		10	1	7	1	7		5	S. 39° E.	4·0	4·7	3·8	+24	55	·418	1·4	0	0·55	−0·55	0·02	0·37	−0·35	0·02	0·37	−0·35	0·02	Sirsa	South Punjab.	27
12	6	1	1	4			1	5	N.	4·5				54	·378	2·8	2			0·43			0·43			0·20	Patiala.		
13	5	2		1	2		8		N. 57° W.	2·5	2·2	1·8	+22	52	·339	3·7	0	2·36	−2·36	0·03	0·99	−0·96	0·03	0·99	−0·96	0·02	Ludhiana	Punjab (Sub-montane).	29
14	5	6	1	1		2	1	1	N. 20° E.	1·4		1·9	−26	59	·371	1·0	2	2·64	−0·64	0·90	1·18	−0·28	0·90	1·18	−0·28	0·57	Sialkot.		
14		1	3	2	1			10	N. 20° W.	3·3				59	·351	2·2	1			0·27	0·73	−0·46	0·27	0·73	−0·46	0·10	Umballa.		
26	1	2				2			N.	2·7	2·5	2·6	− 4	62	·329	3·7	2	3·91	−1·91	0·91	1·76	−0·85	0·91	1·76	−0·85	0·61	Rawalpindi	North Punjab.	31
																				0·17	0·42	−0·24					VII.—Indus Valley and North-West Rajputana.		
26					2	1	1	1	S. 49° W.	1·8	2·0	3·7	−46	71	·404	4·5	1	3·55	−2·55	0·90	1·70	−0·80	0·90	1·70	−0·80	0·61	Peshawar	North Punjab.	31
18	4	4	1			2	1	1	N. 24° E.	5·1	5·9			46	·309	2·4	2	1·60	+0·40	0·33	0·54	−0·21	0·33	0·54	−0·21	0·11	Khushab	West Punjab.	32
2	4	6	5	4	6	2	1	1	S. 82° E.	6·5	5·6			40	·278	3·0	0	1·00	−1·00	0	0·51	−0·51	0	0·51	−0·51	0	Montgomery		
20	4	2				1	1	3	N. 20° W.	2·3	2·4	2·1	+14	67	·424	3·9	2	1·55	+0·45	0·51	0·63	−0·12	0·51	0·63	−0·12	0·35	D. I. Khan		
18	2	5	1	3	1			1	N. 62° E.	2·3	2·8	2·1	+33	53	·358	2·6	0	1·18	−1·18	0·10	0·38	−0·28	0·10	0·38	−0·28	0·06	Mooltan.		
10		1	7	6	3	1		3	S. 61° E.	3·8	4·0	3·9	+ 3	45	·369	2·4	0	0·73	−0·73	0·04	0·14	−0·10	0·04	0·14	−0·10	0·03	Jacobabad	Sind.	47
13	1	2			3	10	1	1	S. 48° W.	7·4	7·7	8·3	− 7	52	·434	2·7	0	0·50	−0·50	0	0·14	−0·14	0	0·14	−0·14	0	Hyderabad.		
7		1	1			4	15	3	W.	9·4	11·9	11·8	+ 1	71	·612	2·2	0	0·55	−0·55	0	0·23	−0·23	0	0·23	−0·23	0	Kurrachee.		
1	5	6	5	1	3	6	2	2	N. 41° E.	5·5		4·3	+28	42	·361	1·9	0			0	0·20	−0·20	0	0·20	−0·20	0	Bikaner	West Rajputana	51
1	4	5	2	1	4	9	4	1	S. 59° W.	7·0	8·0	4·1	+95	50	·415	2·0	0	0	0	0	0·07	−0·07	0	0·07	−0·07	0	Pachpadra.		
5	3	7	2		1	7	5	1	N. 53° W.	4·4‡	4·0			32	·272	2·4	0			0	0·03	−0·03	0	0·03	−0·03	0	Jodhpur.		
																				0·02	0·15	−0·13					VIII.—East Rajputana, Central India and Gujarat.		
10	6	5	2				3	5	N. 4° W.	3·4		5·7	−40	36	·295	2·2	0	0·50	−0·50	0	0·39	−0·39	0	0·39	−0·39	0	Jaipur	East Rajputana	50
15	3		2	1		4	3	3	N. 73° W.	3·8	4·5			25	·242	1·1	0			0	0·07	−0·07	0	0·07	−0·07	0	Kotah.		
23	2	1	1		1		2	1	N. 23° W.	4·5		6·2	−27	44	·330	2·3	0	0·64	−0·64	0·09	0·36	−0·27	0·09	0·36	−0·27	0·09	Sambhar.		
16	3	1				1	6	4	N. 57° W.	5·2		3·6	+44	45	·360	2·6	0	0·27	−0·27	0	0·17	−0·17	0	0·17	−0·17	0	Ajmer.		
17	3			1	1	2	3	4	N. 67° W.	5·5	5·6			38	·335	1·2	0			0			0			0	Udaipur.		
	2	2	7	1	4	5	7	3	S. 52° W.	9·6		8·9	+ 8	48	·407	1·2	0	0·18	−0·18	0	0·05	−0·05	0	0·05	−0·05	0	Deesa.		
	2			1	1	5	18	3	S. 88° W.	11·9		8·3	+43	71	·614	2·5	0			0	0·09	−0·09	0	0·09	−0·09	0	Bhuj*	Kathiawar and Cutch.	48
	2	1	1		7	8	9	3	S. 62° W.	6·8	7·3			64	·568	1·8	0			0			0			0	Jamnagar.		
4	8		1		6	1	8	3	N. 70° W.	9·2	9·1	8·1	+12	71	·585	1·9	0	0	0	0	0·01	−0·01	0	0·01	−0·01	0	Rajkot.		
	5	8		1			4	13	N. 20° W.	7·6	9·0	6·6	+33	66	·548	1·6	0			0	0	0	0	0	0	0	Veraval.		
2	1					6	5	17	N. 68° W.	8·5	8·8			44	·391	1·2	0			0	0·09	−0·09	0	0·09	−0·09	0	Bhavnagar Para.		
7	2		1		2	11	5	3	S. 67° W.	2·4	2·4	2·3	+ 4	40	·324	1·7	1	0·55	+0·45	0	0·27	−0·27	0	0·27	−0·27	0	Nowgong	Central India.	49
7	4	3	1		1	3	7	5	N. 55° W.	4·8		3·7	+20	36	·318	1·5	0	0	0	0	0·02	−0·02	0	0·02	−0·02	0	Indore.		
6		6	5	1		8	4	1	S. 18° W.	8·8	7·9	9·1	−13	42	·372	2·3	0	0·18	−0·18	0·07	0·08	−0·01	0·07	0·08	−0·01	0·07	Neemuch.		
4	6	10	2	6	2	1			N. 64° E.	4·5	7·4	6·5	+14	53	·513	1·0	0	0	0	0	0	0	0	0	0	0	Surat	Gujarat.	54
	7	5	3		2	5		9	N. 11° W.	3·5				47	·421	1·7	0			0	0·07	−0·07	0	0·07	− 0·07	0	Ahmedabad		

‡ Mean of 29 days.

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Abstract of Observations taken at 8 A.M. at 219 Stat

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
22	N.-W. P., West	Agra	555	29·351	−·009	29·881	29·564	11th	29·160	20th	·404	72·7	94·3	+2·8	67·2	+4·4	80·8	+3·6	27·1	101·0	15th & 16th.	56·4	9th	4
21	N.-W.P., Central	Jhansi	858	29·074	−·004	29·899	29·280	11th	28·911	20th	·369	78·5	96·7	+3·6	71·6	+6·1	84·2	+4·9	25·1	103·8	16th	61·1	9th	4
	IX.—Deccan				+·012								99·1	+2·7	69·1	+2·0	84·0	+2·4	30·0					4
38	Bombay, Deccan	Belgaum	2,539	27·429	+·013	29·892	27·534	11th	27·357	21st	·177	76·3	94·7	+0·9	64·5	+0·4	79·6	+0·7	30·2	97·3	29th	59·9	26th	3
		Sholapur	1,590	28·365	+·015	29·908	28·524	12th	28·289	20th	·235	79·2	101·7	?	70·9	+2·1	86·3	?	30·8	105·2	23rd	64·1	15th	4
		Poona	1,840	28·142	+·022	29·950	28·249	11th	28·068	21st	·181	73·3	99·2	+2·1	63·6	−0·7	81·4	+0·7	35·6	103·5	30th	57·4	4th	4
		Bijapur	1,946	28·028	?	29·916	28·142	12th	27·956	15th	·186	79·1	99·7	+3·7	70·8	+0·1	85·2	+1·9	28·9	102·2	28th & 29th.	63·7	14th	3
40	Khandesh	Malegaon	1,430	28·539	+·021	29·934	28·677	11th	28·456	21st	·221	77·4	100·3	+2·0	63·5	−0·2	81·9	+1·4	36·8	103·3	31st	55·5	8th	4
		Ahmednagar	2,152	27·846	?	29·941	27·972	11th	27·766	21st	·206	77·5	97·2	+2·7	62·9	+0·5	80·1	+2·1	34·3	100·9	30th	56·5	15th	4
41	Berar	Akola	930	29·023	+·027	29·909	29·200	11th	28·935	20th	·265	80·0	102·3	+2·6	67·6	+1·7	85·0	+2·7	34·8	107·7	31st	59·0	13th	4
		Amraoti	1,215	28·736	+·030	29·911	28·908	11th	28·635	20th	·273	79·7	101·7	+3·4	71·4	+2·9	86·6	+3·2	30·3	105·3	24th & 30th.	63·8	4th & 5th	4
42	Central Provinces, West.	Khandwa	1,044	28·917	+·026	29·932	29·091	11th	28·813	20th	·278	76·6	99·5	+2·0	66·8	+1·8	83·2	+1·9	32·7	107·2	31st	55·6	9th	5
		Hoshangabad	1,006	?28·950	?+·028	?29·932	29·148	11th	28·836	20th	·312	75·1	99·2	+3·1	66·4	+2·1	82·8	+2·6	32·8	104·3	31st	59·3	3 days	4
		Nagpur	1,025	?28·907	+·008	?29·897	29·095	11th	28·795	20th	·300	78·4	101·6	+3·1	69·5	+1·9	85·6	+2·5	32·1	105·6	31st	62·1	9th	4
43	Central Provinces, Central.	Chanda	634	29·327	+·012	29·911	29·501	11th	29·237	21st	·264	80·7	102·8	+2·6	70·9	+3·7	86·9	+3·2	31·9	106·7	31st	59·2	13th	4
		Seoni	2,033	27·918	+·017	29·907	28·119	11th	27·806	20th	·312	75·3	96·2	+2·7	65·3	+1·8	80·8	+2·3	30·9	100·8	28th	58·0	11th & 13th.	4
		Jubbulpore	1,327	28·596	−·005	29·907	28·800	11th	28·475	20th	·325	71·5	95·9	+2·8	62·5	+1·4	79·3	+2·1	33·4	101·9	28th & 31st.	53·9	9th & 12th.	4
		Saugor	1,807	28·125	+·016	29·906	28·329	11th	28·003	20th	·326	77·0	92·7*	+2·1*	68·3	+3·9	79·6*	+3·0	24·4	98·8	16th	59·1	7th	3
49	Central India	Sutna	1,040	28·875	−·004	29·894	29·078	11th	28·722	20th	·356	74·8	94·2	+2·6	64·5	+3·5	79·3	+3·1	29·7	100·5	31st	53·8	9th	4
44	Central Provinces, East.	Raipur	970	?28·962	?+·015	29·891	29·127	11th	28·828	20th	·299	79·0	94·6	?	70·0	+1·5	82·3	?	24·6	98·9	29th & 30th	61·2	25th	3
		Sambalpur	486	29·440	−·004	29·882	29·649	11th	29·301	20th & 21st.	·348	77·4	99·5	+2·8	71·0	+3·6	85·4	+3·2	28·8	105·1	31st	63·2	2nd	4
39	Hyderabad (North).	Indur										82·3	100·7		72·5		86·6		28·2	103·7	31st	67·2	5th & 6th.	3
		Bidar	2,165	27·803		29·890	27·950	7th	27·716	20th & 21st.	·234	82·0	98·2		72·8		85·5		25·4	100·3	8th	68·4	29th	3
53	Hyderabad (South).	Gulbarga	1,502	28·460		29·910	28·622	11th	28·398	22nd	·224	81·3	102·4		73·5		88·0		28·9	105·5	29th	66·3	14th	3
		Raichur	1,309	?	?	?	28·747	11th	28·519	20th	·228	83·2	101·0	+2·4	76·4	+2·4	88·7	+2·4	24·6	104·0	3 days	71·1	15th	3
		Hyderabad (Deccan).	1,690	28·263	−·004	29·901	28·397	11th & 12th	28·161	20th	·236	79·6	99·9	+2·2	73·5	+4·0	86·7	+3·1	26·4	102·9	8th & 28th.	68·2	13th	3
		Secunderabad.	1,787	28·167	−·001	29·909	28·306	11th	28·073	20th & 21st.	·233	77·5	100·8	+3·1	72·7	+3·2	86·8	+3·2	28·1	104·7	25th	67·1	14th	3
		Hanamconda		29·073			29·207	11th	28·989	20th	·218	79·4	99·9		75·1		87·6		24·8	102·7	5 days	69·3	14th	3
	X.—West Coast				+·023								87·6	−0·1	74·8	+0·2	81·2	+0·1	12·9					20
37	Konkan	Bombay	37	29·959	+·023	29·936	30·044	27th	29·879	16th	·165	77·1	85·6	0	73·3	−0·2	79·5	−0·1	12·3	91·5	13th & 14th.	70·0	3 days	21
		Ratnagiri	110	29·860	+·016	29·909	29·936	11th	29·783	16th	·153	77·6	86·3	−1·4	72·0	−0·3	79·2	−0·9	14·3	92·9	14th	67·9	1st	25
		Mormugao	60	29·907	+·019	29·903	29·977	6th & 11th	29·809	21st	·168	77·8	85·3	−1·5	74·4	−1·1	79·9	−1·3	10·9	91·5	14th	70·9	5th & 6th.	20
		Goa	199	29·774	+·026	29·912	29·856	6th	29·675	21st	·181	76·8	84·4	?	73·4	−0·7	78·9	?	11·0	91·0	14th	70·0	6th	21
		Karwar	44	29·948	+·030	29·924	30·017	6th	29·860	21st	·157	74·5	86·9	−0·9	71·0	−2·1	79·0	−1·5	15·9	91·3	14th	67·5	2nd & 4th.	28
33	Malabar	Cochin	11	29·978	+·020	29·916	30·054	11th	29·893	21st	·161	82·9	93·1	+2·5	78·8	+2·1	86·0	+2·3	14·3	95·5	12th	74·7	24th	20
		Calicut	27	29·956	+·012	29·913	30·043	11th	29·851	21st	·192	81·7	90·3	−0·2	76·1	+0·2	83·2	0	14·2	92·8	23rd	73·5	3 days	19
		Mangalore	65	29·925	+·019	29·922	30·004	6th	29·826	21st	·178	80·4	88·7	−0·2	75·6	−0·2	82·2	−0·2	13·1	91·3	31st	73·9	3 days	17
		Trivandrum	198	29·764	+·039	29·894	29·836	27th	29·670	21st	·166	81·3	88·3	+1·2	78·3	+3·8	83·3	+2·5	10·0	90·0	14th	75·0	8th	15
	XI.—South India				+·014								96·0	+2·3	73·3	+1·8	84·7	+2·1	22·8					33
57	Madras (South).	Pamban	37	29·944		29·908	30·025	11th	29·871	20th	·154	84·2	90·1		74·9		82·5		15·2	92·8	27th & 28th.	74·2	5 days	18
		Tinnevelly	168	29·818	+·037	29·917	29·917	12th	29·704	21st	·213	82·4	99·5	+3·1	76·8	+1·0	88·1	+2·1	22·7	104·5	26th	71·9	1st & 15th.	32
		Madura	447	29·540	+·014	29·924	29·635	11th	29·436	21st	·199	82·4	99·6	+2·7	74·3	+1·8	87·0	+2·3	25·3	102·0	26th & 30th.	70·5	3 days	31
		Periyakulam		29·045			29·142	12th	28·945	21st	·197	80·9	99·4		70·0		84·7		29·4	103·0	26th	64·0	1st	39

* Mean of 22 days.

I—*continued.*

***in India, Burma, etc., in March 1900*—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st March 1900.	Normal rainfall for period, 1st to 31st March.	Variation from normal of period, 1st to 31st March.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
6		3		3		11		8	S. 77° W.	3·8	3·5	4·5	−22	39	·317	1·1	0	0·82	−0·82	0·01	0·31	−0·30	0·01	0·31	−0·30	0·01	Agra	N.-W. P., West	22
9	4	1	1		8	2	5	1	S. 53° W.	3·4		3·4	0	28	·271	1·1	0	1·00	−1·00	0	0·35	−0·35	0	0·35	−0·35	0	Jhansi	N.-W. P., Central	21
																				0·13	0·48	−0·34					IX.—Deccan.		
2	7	4	3	2	1		4	8	N. 11° W.	12·3		11·6	+6	35	·315	1·5	0	1·00	−1·00	0	0·35	−0·35	0	0·35	−0·35	0	Belgaum	Bombay Deccan	38
	3	3	6	2	1	1		15	N. 9° W.	9·5		7·4	+28	27	·277	1·1	1	0·36	+0·64	0·67	0·34	+0·33	0·67	0·34	+0·33	0·67	Sholapur.		
2		3		1	1	5	8	11	N. 75° W.	10·3		8·3	+40	39	·321	0·9	0	0·36	−0·36	0·01	0·05	−0·04	0·01	0·05	−0·04	0·01	Poona.		
			1	2			13	14	N. 69° W.	5·7				46	·461	0·3	0	0·03	−0·03	0·02	0·30	−0·28	0·02	0·30	−0·28	0·02	Bijapur.		
	2		1				21	7	N. 74° W.	6·7	7·7	6·4	+20	35	·324	0·1	0	0	0	0	0·03	−0·03	0	0·03	−0·03	0	Malegaon	Khandesh.	40
3	7	9	1					11	N. 1° W.	7·9	9·6			47	·447	0·6	0			0	0·36	−0·36	0	0·36	−0·36	0	Ahmednagar.		
1		1	2	4	2	7	6	8	S. 73° W.	7·0	6·7	4·4	+52	25	·260	0·3	0	0·82	−0·82	0	0·55	−0·55	0	0·55	−0·55	0	Akola	Berar.	41
	1	4	8	1	2	7	5	3	S. 19° W.	7·1	6·3	4·0	+58	32	·328	0·9	0	0·45	−0·45	0·06	0·40	−0·34	0·06	0·40	−0·34	0·06	Amraoti.		
7		1	1		1	1	10	10	N. 69° W.	6·7		4·6	+46	24	·218	1·5	0	0·18	−0·18	0	0·13	−0·13	0	0·13	−0·13	0	Khandwa	Central Provinces, West.	42
		13				9		9	N. 20° W.			2·6		64	·559	0·3	0	0·36	−0·36	0	0·23	−0·23	0	0·23	−0·23	0	Hoshangabad.		
19	4	5			1			2	N. 14° E.	6·2		5·5	+13	26	·256	1·9	0	1·00	−1·00	0	0·61	−0·61	0	0·61	−0·61	0	Nagpur.		
17	1	2	3	2	2		1	3	N. 68° E.	2·7		3·2	−16	37	·405	1·2	0			0·10	1·49	−1·39	0·10	1·49	−1·39	0·07	Chanda	Central Provinces, Central.	43
	4	6	2	2	1	5	3	8	N. 30° W.	2·2		3·4	−35	36	·323	1·5	0	1·73	−1·73	0·04	0·70	−0·66	0·04	0·70	−0·66	0·04	Seoni.		
3	1	2	1	6	12	2	1	3	S. 9° E.	2·9‡		3·0	−3	37	·294	1·5	0	0·82	−0·82	0	0·51	−0·51	0	0·51	−0·51	0	Jubbulpore.		
		2	9	5	2	5	8		S. 18° E.	2·2§	2·5	3·2	−22	36	·328	1·4	0	0·64	−0·64	0	0·26	−0·26	0	0·26	−0·26	0	Saugor.		
6	11					1	8	5	N. 42° W.	4·4	4·7	5·5	−15	28	·235	0·5	0	0·91	−0·91	0	0·50	−0·50	0	0·50	−0·50	0	Sutna	Central India	43
2	5	6		2	1	11	1	3	N. 78° W.	6·6	6·0	4·7	+28	27	·274	0·4	1	1·00	0	0·32	0·81	−0·49	0·32	0·81	−0·49	0·20	Raipur	Central Provinces, East.	44
	16	7	4			2		2	N. 16° E.	2·8	2·7	2·0	+35	46	·434	1·8	1			0·12	1·20	−1·08	0·12	1·20	−1·08	0·11	Sambalpur.		
21	2					3	2	3	N. 72° W.	4·2	4·0			64	·703	1·5	0			0	0·27	−0·27	0	0·27	−0·27	0	Indur	Hyderabad (North).	52
	4	7	1	1		9	3	6	N. 49° W.	6·5	7·8			44	·477	1·1	2			1·01	0·34	+0·67	1·01	0·34	+0·67	0·50	Bidar.		
9	3	11	4	1			1	2	N. 40° E.	9·9	9·5			36	·400	0·8	0			0	0·21	−0·21	0	0·21	−0·21	0	Gulbarga	Hyderabad (South).	53
5	2	1	2	4		9	1	7	S. 77° W.	8·7	8·5			51	·575	0·8	0			0·04	0·41	−0·37	0·04	0·41	−0·37	0·04	Raichur.		
15	2	1	3	4		2	1	3	N. 72° E.	4·6	4·3			51	·519	2·1	1			0·26	0·75	−0·49	0·26	0·75	−0·49	0·26	Hyderabad (Deccan).		
3		1	11	5		2	3	6	E.	6·4		5·0	+28	52	·492	2·0	2			0·66	0·75	−0·09	0·66	0·75	−0·09	0·50	Secunderabad.		
3	4	1	2	16	2	1		2	S. 56° E.	10·6	9·0			68	·694	2·5	0			0			0			0	Hanamconda.		
																				0·27	0·51	−0·25					X.—West Coast.		
	9	11	5		2			4	N. 29° E.	9·1		11·5	−21	77	·721	2·0	0	0·09	−0·09	0	0·03	−0·03	0	0·03	−0·03	0	Bombay.	Konkan.	37
9	14	3	2	1				2	N. 27° E.	6·0	5·9	9·9	−40	69	·646	1·3	1	0	+1·00	1·25	0·01	+1·24	1·25	0·01	+1·24	1·25	Ratnagiri.		
6	13	3	2		4	3			N. 13° E.	9·5‡				81	·773	2·2	0			0	0	0	0	0	0	0	Mormugao.		
	8	6	10	2	2	3			N. 64° E.	7·2				83	·768	2·1	0			0	0	0	0	0	0	0	Goa.		
1	14	7	6				1	2	N. 24° E.	6·0				81	·690	1·1	0	0	0	0	0	0	0	0	0	0	Karwar.		
2	18	8	2					1	N. 16° E.	7·0				76	·863	2·1	1	2·45	−1·45	0·95	2·44	−1·49	0·95	2·44	−1·49	0·95	Cochin	Malabar.	33
15	3	7	2		1			3	N. 28° E.	7·3	9·2			75	·812	0·5	0	0·63	−0·63	0	0·52	−0·52	0	0·52	−0·52	0	Calicut.		
18		2	7	4					S. 84° E.	2·3		3·4	−32	76	·791	1·6	0	0·10	−0·10	0	0·06	−0·06	0	0·06	−0·06	0	Mangalore.		
5	15	2					1	8	N. 13° W.	6·5				72	·781	0·8	1			0·21	1·57	−1·36	0·21	1·57	−1·36	0·21	Trivandrum.		
																				0·05	0·53	−0·47					XI.—South India.		
1		7	5	17	1				S. 70° E.	7·7	8·2			70	·819	2·3	1	1·30	−0·30	0·27	0·79	−0·52	0·27	0·79	−0·52	0·27	Pamban	Madras (South).	57
	11	6	1	1	1	1	2	8	N. 7° W.	4·9	4·7			69	·774	1·5	1	2·40	−1·40	0·18	1·41	−1·23	0·18	1·41	−1·23	0·18	Tinnevelly.		
4	7	6	8	5				1	N. 61° E.	2·7	2·7	4·1	−34	74	·834	2·3	0	0·36	−0·36	0	0·61	−0·61	0	0·61	−0·61	0	Madura.		
10	2	2	7	4	1	1	3	1	S. 85° E.	2·9	3·1			64	·680	0·3	1			0·10			0·10			0·10	Periyakulam		

‡ Mean of 20 days. § Mean of 26 days.

Tab

Abstract of Observations taken at 8 A.M. at 219 Statio

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
34	Madras, South Central.	Salem	940	29·066	+·005	29·948	29·170	11th	28·974	21st	·196	81·6	101·6	+3·2	73·3	+2·7	87·5	+3·0	28·3	104·4	4 days	62·4	14th	4
		Coimbatore	1,348	28·638	+·010	29·936	28·739	12th	28·545	21st	·194	78·4	98·9	+2·6	70·9	+1·1	84·9	+1·9	28·0	102·4	30th	64·3	14th	3
35	Coorg	Mercara	3,781	26·286	+·017		26·370	11th	26·198	21st	·172	70·6	85·5	+1·0	63·1	+1·9	74·3	+1·5	22·4	90·5	30th	60·7	3 days	2
36	Mysore	Chitaldroog	2,405	27·578	+·020	29·887	27·669	11th	27·503	21st	·166	80·3	97·2	+2·9	72·5	+2·1	84·9	+2·5	24·7	100·2	30th	68·9	20th	3
		Bangalore	3,021	27·005	+·010	29·917	27·099	11th	26·919	21st	·180	74·8	93·3	+3·0	66·9	+2·6	80·1	+2·8	26·4	95·8	3 days	60·4	13th	3
		Hassan	3,091	26·948		29·938	27·086	13th	26·864	21st	·222	75·2	93·5		62·5		78·0		31·0	97·3	30th	51·5	14th	4
		Mysore	2,518	27·497	?	29·934	27·587	11th	27·403	21st	·184	75·6	95·2	+1·6	68·2	+0·7	81·7	+1·2	27·0	98·1	30th	60·9	14th	3
56	Madras, East Coast, South.	Negapatam	31	29·958	+·014	29·918	30·059	11th	29·851	21st	·208	84·1	89·9	+1·2	78·5	+3·2	84·2	+2·2	11·4	94·0	23rd	70·9	16th	2
		Cuddalore	12	29·978?	P	29·919?	30·089	11th	29·877	21st	·212	81·8	90·6	+1·2	73·5	+1·0	82·1	+1·1	17·1	92·8	22nd & 23rd,	66·5	14th	2
		Trichinopoly	255	29·734	+·007	29·923	29·835	12th	29·647	21st	·188	81·6	101·2	+3·7	74·8	+2·2	88·1	+3·0	26·4	103·6	5 days	68·9	14th & 15th,	3
		Madras	22	29·968	+·007	29·921	30·087	11th	29·874	21st	·213	81·3	90·8	+1·6	73·1	+1·1	82·0	+1·4	17·7	94·0	26th	67·0	14th & 15th,	2
55	Madras, East Coast, Central.	Nellore	71	29·888	+·021	29·893	30·029	11th	29·759	20th	·270	80·6	99·2	+3·2	73·6	+1·1	86·4	+2·2	25·6	105·4	21st	66·6	14th	3
		Masulipatam	15	29·964	+·009	29·914	30·104	11th	29·851	20th	·253	82·7	92·8	+1·4	75·3	+2·9	81·1	+2·2	17·5	97·1	3rd	69·6	13th	2
54	Madras, Central	Cuddapah	433	29·520	+·023	29·690	29·654	11th	29·422	21st	·232	86·1	105·0	+3·8	77·5	+2·5	91·3	+3·2	27·5	108·8	6th	69·0	13th	3
		Kurnool	924	29·021	+·019	29·890	29·156	11th	28·910	21st	·246	81·3	103·1	+2·4	74·7	+2·7	88·9	+2·6	28·4	105·8	29th & 30th	64·8	14th	4
		Bellary	1,475	28·483	+·019	29·898	28·606	11th	28·404	21st	·202	82·9	102·3	+2·0	74·7	+2·8	88·5	+2·4	27·6	105·2	3 days	64·7	14th	4
52	Madras, East Coast, North.	Cocanada	26	29·949	+·017	29·910	30·089	11th	29·834	20th	·255	81·5	94·5	+3·3	75·6	+1·9	85·1	+2·6	18·9	101·1	31st	71·0	14th	3
		Waltair	226	29·732	−·001	29·903	29·876	11th	29·607	20th	·269	80·3	88·1	+0·9	76·2	−0·4	82·1	+0·3	11·9	90·9	3rd	71·9	13th & 14th,	1
		Gopalpur	21	29·916	+·011	29·879	30·097	11th	29·770	20th	·327	79·1	86·9	+0·6	74·3	+0·9	80·6	+0·8	12·6	97·8	30th	66·6	13th & 14th,	3
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·820			26·020	11th	25·620	17th	·400	60·9	79·3		46·5		62·9		32·8	92·0	14th	34·0	6th	5
		Pishin											72·8		39·0		55·9		33·8	83·5	17th	28·0	4th & 6th,	5
		Quetta	5,502	24·686	+·037		24·928	11th	24·523	17th	·405	52·3	70·5	+6·0	41·8	+2·1	56·0	+4·1	28·7	82·2	17th	30·8	4th & 6th,	5
		Kalat										45·7	69·4		34·9		52·2		34·5	81·3	16th	23·2	4th	5
		Chaman	4,311	25·738	+·028		25·946	11th	25·534	17th	·412	60·1	73·7	+7·0	50·3	+7·5	62·0	+7·3	23·4	85·3	14th	37·1	4th	4
30	Punjab	Leh	11,503	19·761	+·063		20·177	12th	19·504	3rd	·673	31·0	46·9	+0·5	22·3	+0·7	34·6	+0·6	24·6	59·5	31st	8·0	8th	5
		Srinagar	5,204	24·973	+·048		25·233	11th	24·717	20th	·516	43·0	60·8	+6·0	39·4	+2·6	50·1	+4·3	21·4	73·8	15th	31·1	8th & 9th,	4
		Astor (Kashmir)		22·680			23·116	11th	22·389	20th	·727	36·0	50·9		30·8		40·9		20·1	59·8	16th	15·5	6th	4
		Minimarg		21·385			21·720	11th	21·163	3rd	·557													
		Skardu		22·965			23·416	12th	22·675	20th	·741	41·2	55·6		36·0		45·8		19·6	65·4	17th	25·6	13th	3
		Dras		20·880			21·297	12th	20·606	3rd	·691	16·3	36·8		5·5		21·2		31·3	48·3	22nd	−17·4	8th	6
		Gilgit		25·239			25·671	11th	24·878	20th	·793	54·9	66·4		49·0		57·7		17·4	76·9	15th	39·5	1st	2
		Chitral		24·785			25·000	11th	24·575	20th	·425	50·5	63·8		43·2		53·5		20·6	79·6	15th	32·5	6th	4
		Killa Drosh										47·5	63·5		44·1		53·8		19·4	82·2	15th	36·2	6th	4
		Para Chinar	6,000									51·4	64·0		43·7		53·8		20·3	80·8	13th	32·5	4th	4
		Cherat		25·745	+·035		25·917	11th	25·550	20th	·367	56·1	66·1	+5·3	52·1	+4·8	59·1	+5·1	14·0	81·9	15th	43·0	3rd & 6th,	3
		Murree	6,333	23·874	+·036		24·038	12th	23·675	20th	·363	52·8	60·1	+1·4	47·6	+3·8	53·9	+2·6	12·5	76·2	13th	34·0	3rd	4
		Poo											51·8		33·7		42·8		18·1	62·8	28th	25·5	7th	3
		Simla	7,224	23·149	+·039		23·317	11th	23·053	2nd	·264	52·3	60·0	+3·1	47·5	+3·0	53·8	+3·1	12·5	70·4	13th	35·2	6th	2
25	N.-W. Provinces	Chakrata	7,022	23·331	+·045		23·509	12th	23·239	25th	·270	51·1	63·3	+1·4	46·3	+2·3	54·9	+1·9	17·0	73·2	13th	37·3	6th	2
		Mussooree	6,705	23·587	+·037		23·750	12th	23·503	25th	·247	53·5	63·9		48·7		56·3		15·2	84·3	15th	40·0	7th	4
		Ranikhet	6,069	24·139	+·03		24·312	11th	24·054	25th	·258	57·0	68·1	+3·0	52·3	+3·4	60·2	+3·2	15·8	74·0	3 days	44·0	21st	2
		Muktesar		22·883			23·054	11th	22·804	2nd	·250	53·7	66·0		46·3		56·2		19·7	73·7	13th	37·5	8th	3

I—*continued.*

in India, Burma, etc., in March 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March 1900.	Normal rainfall for period, 1st to 31st March.	Variation from normal of period, 1st to 31st March.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
10		8	8		2	3			N. 82° E.	5·4	4·9	5·5	−11	66	·720	0·5	0	1·64	−1·64	0	0·88	− 0·88	0	0·88	− 0·88	0	Salem .	MADRAS, SOUTH CENTRAL.	34
		5	21	5					E.	1·7		3·3	−48	82	·804	4·8	0	1·18	−1·18	0	0·59	− 0·59	0	0·59	− 0·59	0	Coimbatore.		
25	3	1	2						N. 37° E.	4·9	4·6	3·4	+35	62	·465	1·7	0	2·00	−2·00	0	0·87	− 0·87	0	0·87	− 0·87	0	Mercara .	COORG.	35
1	1		2	5	4	9	7	2	S. 39° W.	6·6	5·7			42	·441	0·5	0			0	0·22	− 0·22	0	0·22	− 0·22	0	Chitaldroog.	MYSORE.	36
2			2	5	7	11	3	1	S. 19° W.	8·0	7·0	3·6	+94	62	·543	0·1	0	0·82	−0·82	0	0·54	− 0·54	0	0·54	− 0·54	0	Bangalore.		
3	1	4	3	8	3	2	3	4	S. 53° E.	3·1	2·7			58	·502	0·9	0			0	0·51	− 0·51	0	0·51	− 0·51	0	Hassan.		
	3	2	1	1	3	10	8	3	S. 73° W.	7·3	7·9			65	·569	2·2	0			0	0·67	− 0·67	0	0·67	− 0·67	0	Mysore.		
9	1	3		3	12	2		1	S. 10° E.	13·2	14·4	3·6	+300	74	·868	3·0	0	0·73	−0·73	0	0·54	− 0·54	0	0·54	− 0·54	0	Negapatam	MADRAS, EAST COAST, SOUTH.	56
	1		1		8	10	6	5	S. 56° W.	2·7	3·3			82	·900	0·9	0	1·50	−1·50	0	0·37	− 0·37	0	0·37	− 0·37	0	Cuddalore.		
22		3	2	3			1		E.	3·2		3·8	−16	74	·804	1·0	0	0·82	−0·82	0	0·55	− 0·55	0	0·55	− 0·55	0	Trichinopoly.		
	1			1	11	16	2		S. 30° W.	6·5		6·4	+ 2	78	·839	2·5	0	0·64	−0·64	0	0·39	− 0·39	0	0·39	− 0·39	0	Madras.		
2				14	14			1	S. 21° E.	8·2				80	·843	1·8	0	0·40	−0·40	0	0·21	− 0·21	0	0·21	− 0·21	0	Nellore .	MADRAS, EAST COAST, CENTRAL.	55
2	1	1		9	17		1		S. 15° E.	7·5		6·8	+10	80	·889	4·0	0	0·27	−0·27	0	0·12	− 0·12	0	0·12	− 0·12	0	Masulipatam.		
		5	3	12	1	7	1	2	S. 39° E.					58	·716	0·5	0	0·20	−0·20	0	0·06	− 0·06	0	0·06	− 0·06	0	Cuddapah.	MADRAS, CENTRAL.	54
18			3	5	3		2		S. 28° E.					43	·465	1·4	0	0·67	−0·67	0	0·54	− 0·54	0	0·54	− 0·54	0	Kurnool.		
2	1			2	4	6	5	11	S. 87° W.	5·5	5·8	4·6	+26	36	·406	1·8	1	0·73	+0·27	0·20	0·22	− 0·02	0·20	0·22	− 0·02	0·20	Bellary.		
7	1	1	1	2	8	9	2		S. 21° W.	7·1	6·5			76	·817	3·0	0	0·60	−0·60	0	0·53	− 0·53	0	0·53	− 0·53	0	Cocanada .	MADRAS, EAST COAST, NORTH.	52
1			1		1	14	14		S. 64° W.	14·7				77	·794	3·0	0			0			0			0	Waltair .		
2	3				3	18	1	4	S. 59° W.	17·8	17·4	11·8	+47	87	·853	0·2	1	1·13	−0·13	0·39	0·78	− 0·39	0·39	0·78	− 0·39	0·17	Gopalpur.		
																											XII.—Hill Stations.		
10						12	4	5	S. 73° W.	5·1				37	·189	2·6	4			1·65	1·15	+ 0·50	1·65	1·15	+ 0·50	0·75	Shahrig .	BALUCHISTAN .	48
																	4			1·15	1·61	− 0·46	1·15	1·61	− 0·46	0·40	Pishin.		
27		1		1	1	1			S. 24° E.	2·1	2·2	4·8	−54	60	·241	3·4	3	4·91	−1·91	0·61	1·70	− 1·09	0·61	1·70	− 1·09	0·29	Quetta.		
			1		26		4		S. 7° W.					64	·199		2			0·45	1·55	− 1·10	0·45	1·55	− 1·10	0·19	Kalat.		
	1	2	9	13	3	1	1	1	S. 61° E.	8·9	4·1			66	·335	2·2	1			0·44	1·39	− 0·95	0·44	1·39	− 0·95	0·18	Chaman.		
	1	11	10	1	3	4	1		N. 81° E.	2·1				57	·101	4·7	2			0·26	0·23	+ 0·03	0·26	0·23	+ 0·03	0·12	Leh . .	PUNJAB.	30
20	3	1		3			2	2	N. 11° W.	4·3	4·6			87	·251	5·3	5			3·14	2·50	+ 0·64	3·14	2·50	+ 0·64	1·52	Srinagar.		
13				1	12	5			S. 11° W.	7·8				63	·135	3·5	2			0·45			0·45			0·19	Astor (Kashmir.)		
14	1	4	5	2			1		N. 75° E.	3·8						4·1	14			6·54			6·54			0·99	Minimarg.		
20		2	1		1	1	5	1	N. 84° W.	4·6	5·5			70	·181	5·3	3			0·55	1·52	− 0·97	0·55	1·52	− 0·97	0·26	Skardu.		
28		1			1	1			S.	1·2	1·2			96	·096	3·8	7			4·15			4·15			0·30	Dras.		
22						1	6	1	W.	2·4	2·3			41	·179	7·3	0			0	0·29	− 0·29	0	0·68	− 0·68	0	Gilgit.*		
22		1	1			3		1	S. 45° W.	2·0	1·9			61	·225		5			2·49			2·49			0·61	Chitral.†		
14	2		9		2		3		E.					80	·262	5·7	7			2·61			2·61			0·57	Killa Drosh.*		
	7	1	3	1		2	7	10	N. 40° W.	4·5				58	·218	5·1	9			3·30			3·30			0·91	Para Chinar.		
1	17	1			4		2	6	N. 17° W.	13·2	12·3			59	·267	4·3	5			1·94	4·93	− 2·99	1·94	4·93	− 2·99	1·10	Cherat.		
6	3	1	2	13	5	1			S. 45° E.	5·8	7·1	9·4	−24	46	·184	3·5	5	5·36	−0·36	4·26	3·65	+ 0·61	4·26	3·65	+ 0·61	1·85	Murree.		
																3·3	5			2·24	4·11	− 1·87	2·24	4·11	− 1·87	0·83	Poo.		
7	4	10	2	3	5				N. 70° E.	4·7		2·8	+68	37	·141	3·9	4	4·64	−0·64	0·98	2·24	− 1·26	0·98	2·24	− 1·26	0·35	Simla.		
10	7		3				1	6	N. 2° E.	10·0		5·9	+69	49	·179	1·7	4	4·80	−0·80	1·43	2·39	− 0·96	1·43	2·39	− 0·96	0·67	Chakrata .	N.-W. PROVINCES	25
5	4	2	2	1			6	11	N. 38° W.					44	·178	2·7	1			0·46	2·58	− 2·12	0·46	2·58	− 2·12	0·34	Mussooree.		
16	2		2	1		3	2	5	N. 60° W.	3·4	3·9	2·6	+50	45	·212	1·9	1	4·00	−3·00	0·74	2·24	− 1·50	0·74	2·24	− 1·50	0·70	Ranikhet.		
5	2	1	6	4	1	2	1	9	N. 14° E.	5·2	4·8			39	·160	3·0	1			0·41			0·41			0·25	Muktesar.		

* Winds for 30 days. † Winds for 28 days.

Tabl

Abstract of Observations taken at 8 A.M. at 219 Station

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
13	Bengal	Yatung	10,480?										50·4		29·9		40·1		20·5	63·1	14th	22·9	10th	40
		Darjeeling	7,409	23·015	+·047		23·189	12th	22·902	4th	·287	49·2	57·7	+1·0	42·2	+0·2	50·5	+0·6	14·5	67·5	14th	35·2	1st	32
		Gantok	5,660	24·520			24·692	12th	24·440	25th	·252	54·6	67·3		32·7		50·0		34·6	74·2	15th	24·4	19th	49
	Central India	Mount Abu	3,945	26·100	+·008		26·288	11th	25·978	17th	·310	69·7	79·0	+0·5	63·9	+2·1	71·5	+1·2	15·1	86·2	14th	55·4	2nd & 3rd.	30
		Pachmarhi	3,528	26·514	+·017		26·683	11th	26·425	20th	·258	74·3	87·0	+2·5	63·1	+2·7	75·1	+2·6	23·9	92·7	31st	50·7	9th	42
	South India	Wellington	6,200	24·321	+·011		24·394	11th	24·241	21st	·153	64·6	77·6	+3·9	51·2	−1·6	64·5	+1·2	26·4	81·7	30th	46·7	14th	35
		Kodai Kanal	7,638	22·903			22·968	27th	22·831	21st	·137	60·7	69·8		51·7		60·8		18·1	74·0	25th	46·5	13th	27
	XIII.—Extra India.																							
	Ceylon	Trincomalee*	12	29·971	+·027	29·909	30·042	27th	29·891	20th	·151	82·5	90·2	−0·8	78·1	+2·3	84·2	+0·8	12·1	92·0	31st	74·0	15th	18
		Colombo	40	29·944	+·011	29·909	30·018	27th	29·852	14th	·166	83·7	93·7	+4·6	75·6	+0·9	84·7	+2·8	18·1	95·5	3 days.	73·0	12th	22
	Persia	Meshed	3,104									49·4			43·5							35·0	5th	
		Teheran		25·978†			26·200	12th	25·860	9th & 20th.	·340	53·6	66·0		43·4		54·7		22·6	74·8	30th	35·0	4th	39
				25·284‡			25·490	12th	25·190	9th & 20th	·300													
		Ispahan		24·343†			24·530	12th	24·190	29th	·340	50·8	68·9		41·3		55·1		27·6	79·5	12th	32·1	2nd	47
				24·547†			24·700	12th	24·300	29th	·400													
		Bushire	14	30·008	+·012	29·981	30·210	2nd	29·878	21st	·332	66·8	75·3	+2·7	62·5	+4·3	68·9	+3·5	12·8	89·6	10th	55·3	4th	34
		Jask		29·931	−·054		30·096	12th	29·727	17th	·369	73·0	81·4	+3·0	68·1	+2·2	74·8	+2·6	13·3	88·3	16th	61·8	7th	26
	Arabia	Muscat	20	29·985		29·953	30·171	11th	29·817	16th	·354	75·6	78·2		73·3		75·8		4·9	84·0	16th	69·3	3rd	14
		Baghdad	221	††29·914	−·021	††30·119	30·097	2nd	29·790	22nd	·307	59·9	72·7	−2·0	53·7	+6·6	63·3	+2·3	19·0	82·8	27th	43·3	1st	39
		Busrah		30·037			30·243	2nd	29·864	21st	·379		73·9		60·9		67·4		13·0	83·8	12th	53·7	1st	30
		Aden	94	29·908	+·006	29·935	30·015	2nd	29·807	21st	·208	79·1	83·8	−1·4	76·9	+2·2	80·4	+0·4	6·9	87·3	27th & 28th.	73·4	15th	14
		Perim	200	29·723		29·858	29·903	2nd	29·633	20th & 29th.	·270	79·5	86·2		75·2		80·8		11·0	91·9	11th	70·2	14th & 15th.	21
	Afghanistan	Kabul										45·5	67·1		39·6		53·4		27·5	84·1	13th	30·4	6th & 7th.	53
	Central Asia	Kashgar		25·665§			25·851	9th	25·433	13th & 21st.	·418	40·5	55·5		34·7		45·1		20·8	85·5	14th	18·4	1st	67
	Arabian Sea Islands.	Amini Devi	13	29·999		29·940	30·076	6th	29·909	16th	·167	83·3	88·9		77·2		83·1		11·7	92·3	14th	73·4	9th & 16th.	18
		Minicoy	7	29·942		29·874	30·001	6th	29·861	21st	·140	83·8	87·9							90·5	20th			
	Africa	Zanzibar	73	29·934	+·030	29·934	30·035	27th	29·863	20th	·172	82·1	86·8		80·0		83·4			0·	16th	74·8	25th	15

* Mean of 30 days.

NOTE.—When a query is inserted against any reading or in the variation returns for any station,
† Aneroid uncorrected. ‡ Mountain barometer uncorrected.
§ " corrected.

I—*concluded.*

in India, Burma, etc., in March 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st March 1900.	Normal rainfall for period, 1st to 31st March.	Variation from normal of period, 1st to 31st March.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																	10			2·15			2·15			0·42	Yatung .	BENGAL.	13
17		3	3	2		3	2	1	S 63° E	8·1	7·5	6·6	+14	77	·270	2·6	5	3·38	+1·62	1·91	1·65	+0·26	1·91	1·65	+0·26	1·07	Darjeeling.		
21									Calm.	3·0	3·6			65	·274	1·5	9			9·35	5·05	+4·30	9·35	5·05	+4·30	5·20	Gantok.		
1	1	9		1	1	8	5	5	N 64° W	9·1	9·5	6·7	+42	33	·237	1·9	0	0·27	−0·27	0	0·12	−0·12	0	0·12	−0·12	0	Mount Abu	CENTRAL INDIA.	
18	2	1	1	1			1	7	N 27° W	6·3	6·4	4·6	+39	38	·330	1·9	0	0·73	−0·73	0	0·32	−0·32	0	0·32	−0·32	0	Pachmarhi.		
27	1	2	1						N 45° E	2·8		2·8	0	55	·315	0·7	0	3·13	−3·13	0	2·81	−2·81	0	2·81	−2·81	0	Wellington	SOUTH INDIA.	
1	7	7	7	9					N 73° E	8·5				34	·172	1·2	1			0·17			0·17			0·12	Kodai Kanal		
																											XIII.—Extra India.		
17		4				9			S 45° W	1·0				83	·930	1·6	0			0	1·40	−1·40	0	1·40	−1·40	0	Trincomalee*	CEYLON.	
	1	4	10	11	1	3	1		S 68° E	6·3		5·0	+26	75	·871	1·2	3			3·71	4·65	−0·94	3·71	4·65	−0·94	2·94	Colombo.		
														78	·278	6·1	2			1·00	2·20	−1·20	1·00	2·20	−1·20	0·64	Meshed .	PERSIA.	
3	7	10	2	1	1			3	N 28° E	2·8	3·7			53	·218	5·1	1			0·39	3·03	−2·64	0·39	3·03	−2·64	0·34	Teheran.**		
12		2			1	5	9	1	S 81° W	4·9	6·3			71	·266	4·2	0			0·02	1·21	−1·19	0·02	1·21	−1·19	0·02	Isphahan.§§		
1	5	6	2	7	2		2	6	N 37° E	8·5	10·1	8·9	+13	70	460	3·3	0			0·02	1·43	−1·41	0·02	1·43	−1·41	0·02	Bushire.		
7	2	2	5	1			3	11	N 19° W	11·2	13·0			77	·633	2·5	0			0	1·21	−1·21	0	1·21	−1·21	0	Jask.		
13	1	1		1		2	1	12	N 51° W	4·4	4·5			65	·572	3·3	3			0·65	1·09	−0·44	0·65	1·09	−0·44	0·22	Muscat .	ARABIA.	
15	3	3		1	4	1	2	2	N 45° W	1·9	2·5			75	·391	4·6	4			1·03	1·93	−0·90	1·03	1·93	−0·90	0·39	Baghdad.		
	20	1			9			1	N								1			0·12			0·12			0·12	Busrah.		
		10	19	2					N 78° E	20·3*		14·9	+36	77	·759	5·0	0			0·03	1·16	−1·13	0·03	1·16	−1·13	0·03	Aden.		
			6	19	2	1	2	1	S 47° E	15·1	14·0			78	·792	6·5	2			1·14	0·13	+1·01	1·14	0·13	+1·01	0·82	Perim.		
11	5	2	2			1	10		N 50° W					61††	·193††	5·0¶	5			3·50	5·94	−2·44	3·50	5·94	−2·44	1·00	Kabul .	AFGHANISTAN.	
20	4		2		1		4		N 34° W							6·8	1			0·20	0·25	−0·05	0·20	0·25	−0·05	0·20	Kashgar .	CENTRAL ASIA.	
	18	1		1	1	1		9	N 15° W					83	·953	3·2	0			0			0			0	Amini Devi.	ARABIAN SEA ISLANDS.	
	18	7					1	5	N 1° E	5·2	5·6			70	·809	2·0	0			0			0			0	Minicoy .		
	6	6	2	2	6	5	3	1	E	5·5	5·2			83	·910	6·5	10			7·78	5·15	+2·63	7·78	5·15	+2·63	1·70	Zanzibar .	AFRICA.	

data for that station are not utilized in calculating the provincial variations. ** Winds for 27 days. †† Mean of 29 days. ¶ Mean of 28 days. §§ Winds for 30 days.

Tabl

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 daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.
Burma Coast and Bay Islands.	Port Blair		29·947	29·841	·106	29·883	+·032	29·875	91·8	77·5†	14·3	94·6	73·2	21·4	86·4	89·7	83·1†	+1·6	74·9	79·4	80·4
	Rangoon		·946	·802	·144	·876	+·018	·853	97·7	72·1	25·6	102·3	66·8	35·5	84·7	93·5	82·2	+1·7	69·3	74·5	74·9
	Diamond Island		·961	·858	·103	·899	+·019	·874	84·6	77·7	6·9	87·4	75·3	11·6	82·2	82·6	79·5	+1·1	72·6	75·4	75·6
	Cocos Island	111	·880	·783	·097	·822	+·026	·864	89·1	77·0	12·1	94·0	75·0	19·0	84·7	85·8	81·1	+1·5	72·4	76·6	76·9
	Akyab		·978	·862	·116	·915	+·017	·878	89·6	?	?	94·6	?	?	82·1	85·3	?	?	?	75·2	74·7
Bengal and Orissa.	Chittagong		·905	·782	·123	·838	+·014	·873	88·4	69·3	19·1	93·4	60·3	33·1	81·7	84·5	78·4	+1·6	67·5	73·8	74·9
	Calcutta (Alipore)		·926	·797	·129	·855	+·002	·821	94·5	71·5	23·0	101·7	60·5	41·2	85·2	91·9	81·9	+2·7	68·3	74·7	74·8
	Saugor Island		·929	·810	·119	·863	+·007	·832	88·5	76·1	12·4	91·1	63·6	27·5	84·0	85·1	80·3	+0·9	72·6	76·8	77·5
	False Point		·938	·816	·122	·876	−·005	·839	87·5	74·8	12·7	90·5	62·5	28·0	84·5	84·4	79·3	+1·6	73·1	78·6	78·6
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·940	27·827	·113	27·879	+·017	·790	91·8	66·3	25·5	98·0	56·7	41·3	83·6	89·7	78·8	+3·4	53·5	61·0	62·5
	Darbhanga		29·751	29·621	·130	29·681	−·005	·801	90·0	63·6	26·4	96·8	54·3	42·5	80·1	89·3	77·0	+1·4	59·9	67·7	69·0
	Allahabad		·613	·494	·119	·543	−·007	·803	94·6	62·9	31·7	101·5	50·7	50·8	85·4	94·4	78·8	+1·0	56·2	65·6	66·7
Upper Sub-Himalayas.	Dehra Dun		27·683	27·598	·085	27·633	+·003	·824	83·7	57·1	26·6	91·3	47·1	44·2	73·6	80·3	69·5	+2·6	50·2	58·3	58·4
	Roorkee		29·010	28·913	·097	28·955	−·001	·807	90·0	57·7	32·3	99·7	46·2	53·5	79·0	88·1	73·3	+3·6	51·2	61·4	62·0
	Meerut		·159	29·060	·099	29·102	−·013	·804	91·9	60·1	31·8	98·4	50·3	48·1	80·4	89·2	75·1	+3·8	53·2	64·5	67·0
	Lahore		·213	·122	·091	·161	−·007	·837	87·8	59·3	28·5	97·9	48·3	49·6	76·5	87·4	73·3	+5·5	53·0	62·3	65·7
	Lahore (new shed)								90·1	58·1	32·0	101·8	46·1	55·7	78·9	88·0	73·4		52·9	63·5	65·9
	Ludhiana		·091	·007	·084	·043	−·007	·826	89·3	60·5	28·8	98·2	48·7	49·5	78·0	87·1	74·1	+5·3	54·4	60·9	63·2
Indus Valley and N.-W. Rajputana.	Peshawar		28·855	28·768	·087	28·806	−·006	·919	79·5	55·1	24·4	92·0	43·9	48·1	71·4	77·4	66·6	+3·6	50·9	60·6	62·2
	Jacobabad		29·746	29·614	·132	29·674	−·011	·817	98·5	64·3	34·2	108·9	52·0	56·9	85·3	96·3	80·6	+5·7	54·1	66·3	71·3
	Kurrachee		·943	·849	·094	·893	−·003	·873	89·3	68·7	20·6	103·4	55·2	48·2	83·1	84·3	77·8	+2·3	64·5	71·2	73·0
E. Rajputana, C. India and Gujarat.	Jaipur		28·520	28·409	·111	28·458	+·008	·831	95·0	64·9	30·1	101·1	53·0	48·1	85·0	92·9	79·3	+4·7	52·4	63·1	65·2
	Udaipur		·039	27·924	·115	27·982		·838	92·5	65·5	27·0	98·3	55·9	42·4	84·7	90·9	78·6		56·2	64·6	67·6
	Deesa		29·507	29·374	·133	29·434	+·012	·849	98·3	66·1	32·2	105·9	58·3	47·6	85·8	97·0	82·9	+2·2	55·4	65·0	64·9
	Jamnagar		·937	·817	·120	·877		·883	92·3	65·5	26·8	102·3	58·5	43·8	84·3	89·5	78·2		54·5	67·6	67·3
Deccan.	Belgaum		27·438	27·314	·124	27·375	+·015	·776	94·8	64·5	30·3	98·1	60·0	38·1	86·5	89·7	77·9	+0·8	57·0	61·3	67·1
	Sholapur		28·370	28·215	·155	28·289	+·007	·779	101·8	70·9	30·9	105·0	63·9	41·1	90·8	99·8	85·8	+1·7	56·0‡	64·6	68·2
	Poona		·142	·005	·137	·079	+·028	·820	99·2	63·7	35·5	103·4	57·4	46·0	86·7	96·1	80·9	+1·0	55·2	62·0	64·1
	Akola		29·025	·875	·150	·945	+·017	·806	102·6	67·6	35·0	107·8	59·1	48·7	92·5	100·9	85·5	+2·8	55·0	64·8‡	67·8‡
	Buldana	2,132	27·845	27·717	·128	27·776	+·021	·801	98·3	71·9	24·4	101·8	66·5	35·3	86·0	94·2	84·5	+2·4	54·1§	58·6	61·4
	Khandwa		28·926	28·780	·146	28·848	+·028	·826	99·8	66·8	33·0	107·3	55·6	51·7	90·0	99·0	83·5	+2·5	51·8	63·0	65·6
	Nagpur		·923	·768	·155	·841	+·019	·798	102·0	69·5	32·5	105·6	62·1	43·5	89·9	99·5	86·0	+2·7	54·0	63·6	67·1
	Do. (Sanitary Commr.'s Office)		·948	·805	·143	·872		·818	102·6	68·9	33·7	106·3	61·7	44·6	91·5	100·8	85·3		55·3	66·0	69·6
	Hyderabad (Deccan).		·273	·134	·139	·200	+·020	·789	100·1	73·5	26·6	103·2	68·2	35·0	89·7	98·1	86·3	+4·2	64·3	69·0¶	69·9
West Coast.	Bombay		29·966	29·850	·11	29·902	+·028	·879	85·7	73·3	12·4	91·7	69·3	21·9	80·5	82·5	78·9	+0·1	67·2	72·8	74·2
	Karwar		·967	·852	·115	·903	+·040	·879	87·0	71·0	16·0	94·2	67·5	26·7	82·8	84·7	78·6	−1·4	68·9	73·6	75·1

† Mean of 29 days. ‡ Mean of 30 days. § Mean of 21 days. ¶ Mean of 28 days.

II.

at 66 Stations in India, Burma, etc., for March 1900.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of Winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%						
·336†	·915	·918	·890	+·027	88†	72	65	75	−1	3·7	4·6	4·2	+1·3		13	27	5	7	1	1	3	5	N 37° E	N 62° E	58	64	89	103			Port Blair	Burma Coast and Bay Islands.
·685	·717	·621	·674	+·003	87	60	40	62	−2	2·4	1·7	2·1	0		3	1	2	11	18	11	11	5	S 24° W	S 22° W	47	56	115	114			Rangoon	
·735	·790	·795	·773	+·008	78	72	71	74	−1	2·6	2·4	2·5	−0·2	2	8	2			1	1	18	30	N 53° W	N 42° W	77	83	307*	206			Diamond Island	
·737	·807	·807	·784	+·016	79	68	65	71	−1	2·2	2·6	2·4	+0·8		22	2					12	26	N 35° W	N 9° W	80	70	144	299	Nil	Nil	Cocos Island	
?	·780	·724	?	?	?	71	59	?	?	3·7	3·9	3·8	+1·8			8	11	12		3	14	14	N 10° W	N 53° W	8	24	64	93			Akyab	
·661	·738	·745	·715	+·032	91	68	64	74	0	3·9	3·5	3·7	+0·5		1	12		6	18	17	1	7	S 15° W	S 36° W	32	20	165*	129			Chittagong	Bengal and Orissa.
·653	·727	·643	·678	+·044	85	60	43	62	−4	2·0	1·6	1·8	−0·7		5	2	2	3	18	27	3	2	S 30° W	S 36° W	58	49	104	118			Calcutta (Alipore).	
·767	·836	·849	·817	+·006	84	71	71	75	−3	3·6	3·8	3·7	0		2	1	1	8	30	16	2	2	S 10° W	S 26° W	69	61	395	309			Saugor Island.	
·801	·904	·902	·869	+·083	92	76	76	81	0	4·1	4·0	4·1	+0·9		1		3	2	25	29	1	1	S 21° W	S 50° W	79	37	285*	266			False Point	
·256	·258	·231	·248	−·036	40	22	17	26	−8	1·0	1·7	1·4	−1·3	3	8	1			5	2	16	27	N 59° W	N 74° W	68	54	174*	194			Hazaribagh	Gangetic Plain and Chota Nagpur.
·474	520	·442	·479	+·032	80	51	32	54	0	0·2	0·2	0·2	−1·1	1	2	2	8	9	4	7	18	11	S 74° W	S 78° W	24	31	96	113			Darbhanga	
·364	·371	·290	·342	−·016	63	31	18	37	−5	1·2	1·4	1·3	−0·7	1	3	3	2	2	3	6	20	22	N 77° W	N 62° W	58	40	111*	110			Allahabad	
·281	·301	·218	·267	−·026	60	37	21	39	−9	3·0	4·3†	3·7	+0·2		Observations imperfect.								?	N 80° W	?	27	?	50			Dehra Dun	
·295	·314	·214	·274	−·054	62	32	16	37	−12	1·9	2·7	2·3	−0·2	22	3		1	4	4	4	6	17	N 72° W	N 64° W	29	25	82	72			Roorkee	Upper Sub-Himalayas.
·322	·403	·378	·368	+·011	61	38	27	42	−7	1·2	2·3	1·8	−0·7	19	2			1		2	25	13	N 75° W	N 60° W	58	44	55*	66			Meerut	
·327	·376	·247	·350	−·004	64	42	27	44	−6	3·6	3·8	3·7	+0·5	9	14	5	4	4	7	1	11	7	N 28° W	N 10° W	21	31	58	70			Lahore	
·338	·382	·348	·356		69	39	26	45																							Lahore (new shed.)	
·348	·312	·267	·309	−·055	66	33	21	40	−14	3·6	5·1	4·4	+0·3	11	15	1	2		7	1	21	4	N 64° W	N 45° W	39	34	55*	50			Ludhiana	
·329	·404	·381	·371	+·043	74	53	42	56	−1	4·6	6·3	5·5	+0·7	27	5	7	8	2		3	4	6	N 21° E	N 18° E	18	16	44*	91			Peshawar	
·292	·401	·442	·379	+·078	47	32	26	35	−2	1·5	2·4	2·0	−1·0	19	4	2	11	10	7	2	1	6	S 66° E	N 87° E	23	15	98*	91			Jacobabad	India Valley and N.-W. Rajputana.
·565	·612	·666	·614	+·023	79	55	58	64	−1	1·3	1·5	1·4	−1·3	5		1		1	3	21	29	2	S 70° W	S 77° W	75	60	284*	281			Kurrachee	
·244	·308	·279	·277	−·028	39	25	17	27	−10	2·3	2·8	2·6	−0·4	1	3	4	4	7	2	14	18	9	S 78° W	N 39° W	37	32	82	113			Jaipur	
·248	·367	·391	·369		54	31	27	37		1·0	1·4	1·2		5	3	4	6	6	3	12	15	8	S 75° W		27		131				Udaipur	E. Rajputana, C. India and Gujarat.
·307	·342	·189	·280	−·019	48	31	11	30	+1	1·4	0·9	1·2	−1·1		6	2	4	4	2	12	19	13	N 84° W	N 66° W	46	35	232	209			Deesa	
·288	·456	·377	·374		45	40	29	38		0·8	0·6	0·7			5	5	1		2	15	24	8	N. 87° W.		58		424*				Jamnagar‖	
·376	·235	·388	·333	−·067	62	19	28	36	−5	0·8	1·7	1·3	−0·6		13	9	4	4	1	12	12	7	N 45° W	N 81° W	28	17	300	272			Belgaum	Deccan.
·274‡	·286	·294	·285‡	−·059	35‡	20	15	23‡	−8	1·3	2·7	2·0	−0·4	1	2	13	4	10	2	5	5	20	N 11° W	N 44° E	21	5	166*	190			Sholapur	
·327	·253	·204	·265	−·047	57	20	12	30	0	1·1	2·4	1·8	−0·3		1	2	4	2		10	31	12	N 87° W	N 63° W	64	43	279*	190			Poona	
·277	·245‡	·241‡	·255‡	−·046	40	16‡	12‡	23‡	−6	0·1	1·9	1·0	−0·7	1	7	8	2	3	1	7	8	25	N 43° W	N 43° W	49	42	160*	113			Akola	
·217§	·156	·138	·183§	−·099	28§	13	9	17§	−11	0·7	2·3	1·5	−0·7		17	5	4			3	16	17	N 37° W	N 28° W	61	47	234*	176	Nil	Nil	Buldana	
·207	·242	·212	·220	−·062	30	17	11	19	−12	1·6	2·6	2·1	+0·4		4	12	4	4		3	12	23	N 33° W	N 45° W	45	45	161	116			Khandwa	
·224	·269	·262	·255	−·100	31	19	14	21	−13	1·6	3·4	2·5	0	6	10	12	2	4	6	5	7	10	N 18° W	N 1° E	23	12	148	133			Nagpur	
·290	·328	·336	·315		39	22	17	26		1·0	2·4	1·7				17		15		13		17	N 20° E		6		57*				Do. (Sanitary Commr.'s Office)	
·493	·455¶	·384	·444	−·021	59	33¶	21	38	−7	1·4	2·8	2·1	+0·3	32	2	5	7	9	1		5	1	S 85° E	S 41° E	18	23	104*	105			Hyderabad (Deccan).	
·590	·708	·740	·679	−·033	72	68	66	69	−3	1·8	1·0	1·4	−0·2		6	4	6				11	35	N 39° W	N 31° W	69	52	217	270			Bombay	West Coast.
·681	·710	·744	·712	−·041	89	63	62	71	−3	0·7	1·1	0·9	−0·5		2				1	12	26	21	N 81° W	N 75° W	80	77	143	96			Karwar	

‖ Wind Variable 2.

* Corrected.

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Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66 Stati

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure. Mean of 10 hours.	Pressure. Mean of 16 hours.	Pressure. Mean daily range.	Pressure. Mean daily pressure.	Pressure. Variation from normal.	Pressure. Mean reduced to S. L. and for gravity, 45° Lat.	Temperature of Air. Mean maximum.	Temperature of Air. Mean minimum.	Temperature of Air. Mean daily range.	Temperature of Air. Highest maximum.	Temperature of Air. Lowest minimum.	Temperature of Air. Absolute range.	Temperature of Air. Mean 10 hours.	Temperature of Air. Mean 16 hours.	Temperature of Air. Mean daily.	Temperature of Air. Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Temperature, Wet-bulb. Mean 10 hours.	Temperature, Wet-bulb. Mean 16 hours.
South India.	Periyakulam		29·049	28·888	·161	28·969			99·5	69·8	29·7	102·1	63·9	38·2	88·1	97·1	84·1		66·2	74·1	70·4
	Salem		·066	·892	·174	·985	+·003	29·841	101·7	73·2	28·5	104·4	62·2	42·2	88·6	99·0	85·6	+3·6	69·4	75·4	74·5
	Chitaldroog		27·584	27·446	·138	27·513	+·026	·779	97·3	72·5	24·8	100·0	68·7	31·3	87·3	95·0	84·3	+2·7	60·8	66·9	67·7
	Bangalore		·017	26·880	·137	26·951	+·013	·799	93·5	66·9	26·6	96·1	60·6	35·5	83·3	91·1	79·6	+2·7	59·8	66·2	64·9
	Hassan		26·950	·824	·126	·889	+·033	·800	93·6	62·5	31·1	97·3	51·5	45·8	84·7	90·2	77·2	+1·2	59·6	64·1	64·2
	Mysore		27·499	27·350	·149	27·425	+·032	·800	95·5	68·2	27·3	98·2	60·9	37·3	84·6	93·9	81·5	+1·5	61·9	67·2	66·2
	Madras		29·980	29·852	·133	29·915	+·011	·868	90·8	73·4	17·4	93·9	66·9	27·0	87·3	86·5	81·5	+0·7		77·1	77·6
	Bellary		28·497	28·342	·155	28·418	+·016	·798	102·3	74·7	27·6	105·0	64·7	40·3	90·1	99·0	87·7	+2·1	61·4	67·0	69·1
	Waltair		29·746	29·625	·121	29·686		·852	88·2	76·1	12·1	91·8	71·9	19·9	85·1	84·0	81·1		71·5	75·5	76·3
Hill Station Baluchistan.	Quetta		24·699	24·623	·076	24·654	+·035		70·6	41·8†	28·8	82·2	30·9	51·3	61·8	66·9	54·9‖	+3·8	37·4	49·3	50·8
Hill Stations Northern India.	Leh		19·773	19·685	·088	19·734	+·074		47·3	22·3	25·0	59·1	8·0	51·1	37·6	42·9	34·5	+2·6	18·6	28·9	33·1
	Srinagar		24·991	24·909	·082	24·943	+·044		61·2	39·6	21·6	73·6	31·1	42·5	49·9	59·1	49·8	+4·4	38·4	47·6	56·4
	Kailang	10,087	21·031	20·958	·073	21·006	P		42·9	24·1	18·8	51·2	9·5	41·7	36·0	39·1	31·6	+2·5	22·5	30·4	32·4
	Simla (Ridge)		23·173	23·128	·045	23·144	+·047		60·4	47·5	12·9	70·4	35·2	35·2	55·3	58·1	53·6	+3·1	38·9	43·2	45·5
	Chakrata		·358	·307	·051	·325	+·047		63·5	46·1	17·4	73·2	37·3	35·9	57·2	58·6	53·8	+2·5	39·8‡	45·4	45·5
	Ranikhet		24·160	24·091	·069	24·119	+·036		68·6	52·3	16·3	75·0	44·0	31·0	63·1	65·6	59·9	+2·4	43·5	48·9	49·4
	Muktesar		22·911	22·855	·056	22·883			66·5	46·3	20·2	73·8	37·5	36·3	59·5	62·1	55·3		38·5	46·5	47·9
	Katmandu	4,388	25·621	25·517	·104	25·570	P		79·7	46·8	32·9	84·8	40·7	44·1	66·9	76·0	62·4	+1·9	45·2	56·3	58·3
	Darjeeling		23·034	22·957	·077	22·994	+·040		58·0	43·2	14·8	67·5	35·2	32·3	51·7	54·6	49·7	+1·5	41·7	47·5	49·8
Hill Stations Central India.	Mount Abu		26·128	26·045	·083	26·080	+·012		79·2	63·9	15·3	86·2	55·2	31·0	73·7	77·5	71·2	+2·3	49·7	56·0	58·2
	Pachmarhi		·535	·437	·098	·481	+·019		87·3	63·1	24·2	93·2	50·7	42·5	80·2	86·0	76·8	+3·0	51·7	61·8	64·2
	Chikalda	3,642	·419	·316	·103	·362	+·016		88·6	68·7	19·9	93·9	62·6	31·3	80·4	87·2	80·2	+3·0	54·0	60·6	63·5
Hill Stations South India.	Wellington		24·331	24·254	·080	24·294	+·028		77·8	51·3	26·5	81·6	46·6	35·0	73·3	73·3	63·4	+1·2	47·9	56·3	58·0
	Kodaikanal		22·927	22·860	·067	22·887			69·8	51·7	18·1	73·9	46·5	27·4	65·9	64·0	59·3		42·1	49·8	52·9
Extra India.	Aden		29·926	29·811	·115	29·857	+·011	·883	84·2	76·9	7·3	87·8	73·5	14·3	80·8	83·1	80·5	+1·3	71·2	73·9	72·8
	Perim		·739	·625	·114	·670	−·007	·804	86·3	75·6	10·7	91·9	70·2	21·7	82·2	82·9	80·1	+0·2	72·3	75·1	75·6
	Minicoy		·952	·851	·101	·892		·824	87·9			90·5			85·7	85·6				76·8	77·0
	Zanzibar		·941	·814	·127	·878	+·032	·877	87·0	80·0	7·0	90·6	74·8	15·8	83·6	86·7	83·5	+1·0	76·3	78·8	79·7
	Port Victoria (Seychelles)	15	·984	·885	·099	·935	+·030	·874	85·0	77·1	7·9	87·1	74·6	12·5	83·7	84·5	80·9	+1·0	74·7	77·6‡	77·8‡
	Mauritius (Pamplemousses)	181				·774	−·014	·901				90·4	64·2	26·2			78·1	+0·8			

† Mean of 28 days. ‡ Mean of 30 days. ‖ Mean of 29 days.

II—*concluded.*

in India, Burma, etc., for March 1900—concluded.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of Winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%							
·581	·673	·499	·571		79	50	29	53		0·4	1·7	1·1		3	3	8	20	10	11	2	4	1	S 68° E		45		75*				Periyakulam	South India.
·673	·717	·537	·642	+·004	82	52	28	54	− 2	0·6	1·9	1·3	−1·1	10		12	15	3	8	11	2	1	S 60° E	S 66° E	27	38	117*	126			Salem	
·394	·407	·341	·381	−·016	49	31	20	33	− 5	0·8	2·4	1·6	−0·7	1	3	5	16	11	2	3	11	10	N 76° E	N 87° E	11	27	138*	154			Chitaldroog	
·437	·453	·311	·400	−·055	66	40	21	42	− 8	0·1	0·8	0·5	−1·8	1	2	11	13	14	10	7	3	1	S 57° E	S 27° E	42	46	168*	100			Bangalore	
·482	·361	·302	·382	−·072	84	30	22	45	−11	1·2	4·6	2·9	−1·0		4	14	15	14	3	4	4	4	N 88° E	S 84° E	40	51	65*	74			Hassan	
·480	·457	·305	·414	−·041	69	38	19	42	− 6	1·9	3·2	2·6	+0·3		6	7	17	15	5	4	5	3	S 77° E	N 84° E	37	37	188*	182			Mysore	
	·794	·829	·828	+·056		61	65	77	+ 3	2·8	0·6	1·7	−0·7			3	6	26	21	6			S 28° E	S 46° E	76	81	155	150			Madras	
·387	·381	·341	·370	−·051	44	27	18	30	− 6	1·7	4·8	3·3	+1·1	1	7	6	6	8	8	11	2	13	S 74° W	S 35° E	5	19	142*	109			Bellary	
·710	·760	·828	·766		79	63	71	71		2·0	3·5	2·8					2	6	5	44	4	1	S 37° W		79		166				Waltair	
·182†	·226	·208	·205	−·009	68†	42	34	48	− 9	3·1	3·7	3·4	−0·7	24	6	1		1	2	5	9	14	N 64° W	S 74° W	37	33	55*	102			Quetta	Hill Stations, Baluchistan.
·076	·093	·105	·091	−·011	60	42	38	47	−11	4·8	6·4	5·6	−0·7			15	11	4	9	10	9	4	S 45° E	S 40° W	13	22	52	45			Leh	Hill Stations, Northern India.
·225	·311	·439	·325	+·093	90	85	84	86	+ 9	5·1	6·9	6·0	+0·4	21	12	3		1	1	2	7	15	N 38° W	N 7° W	43	8	110*	83			Srinagar	
·110	·128	·132	·123	+·006	85	59	55	66	− 4	5·6	7·2	6·4	+0·2					1	1	33	19	8	S 68° W	S 70° W	82	73	36	32	2·29	1·13	Kailang	
·152	·157	·178	·162	−·023	48	37	37	40	−10	5·1	6·7	5·9	+1·1	8	8	8	1		18	12	2	4	S 34° W	S 37° W	19	8	111	136			Simla (Ridge)¶	
·182‡	·187	·173	·181	−·013	59‡	41	36	45	− 8	2·6	3·7	3·2	−0·7	11	4	6	1	11	21	5		3	S 19° E	S 52° W	37	11	240	150			Chakrata	
·194	·202	·187	·194	−·038	50	36	29	38	−15	2·1	3·9	3·5	−0·2	7	3	3	4	4	2	10	17	12	N 86° W	S 57° W	39	27	91*	78			Ranikhet	
·155	·185	·192	·177		50	37	35	41		3·9	5·5	4·7		7	4	2	7	13	3	8	2	16	S 55° W		3		116*				Muktesar	
·289	·335	·289	·304	−·001	88	51	32	57	− 4	1·2	3·0	2·1	−1·5			1	14	1		1	41	4	N 86° W	N 82° W	47	48	29	32	0·09	0·07	Katmandu	
250	·288	·311	·283	+·031	88	75	73	79	+ 6	3·8‖	5·9	4·9	−0·3	3		4	2	2	2	27	20	2	S 62° W	S 75° W	63	44	171*	187			Darjeeling	
·197	·248	·266	·237	+·018	33	30	28	30	− 2	1·9	1·4	1·7	−0·8		4	10	2	1	2	23	13	7	S 83° W	N 81° W	40	38	229*	164			Mount Abu	Hill Stations, Central India.
·263	·349	·359	·321	+·079	43	33	23	35	+ 1	1·8	2·8	2·3	+0·2	10	8	4	2	4		2	9	23	N 40° W	N 57° W	48	32	153*	115			Pachmarhi	
·251	·305	·316	·291	+·004	35	29	24	30	− 2	0·8	2·3	1·6	−0·8	29	17	3					4	9	N 18° W	N 53° W	43	30	233*	173	*Nil*	*Nil*	Chikalda	
·302	·281	·325	·303	−·031	79	34	40	51	− 9	0·7	2·4	1·6	−1·4		2	6	7	39	8				S 53° E	S 49° E	79	65	65	61			Wellington	Hill Stations, South India.
·181	·202	·293	·225		47	31	49	42		1·2	4·2	2·7		2	11	12	7	26		1		3	N 86° E		50		203				Kodaikanal	
·695	·746	·672	·704	−·001	75	71	59	68	− 3	4·3	2·7	3·5	+0·3			19	30	7	3	1	1	1	N 83° E	N 86° E	74	72	442§	366			Aden	Extra India.
·753	·784	·795	·777	+·041	85	71	70	75	+ 3	4·0	2·4	3·2	+1·2		1		14	35	7	1	1	3	S 50° E	S 63° E	74	55	521*	441			Perim	
	·808	·813				65	66			1·6	1·8	1·7			37	8					2	15	N 7° W		87		134*				Minicoy	
·855	·918	·918	·897	+·008	84	80	72	79	+ 1	5·8	5·4	5·6	+0·7		9	7	7	9	12	10	7	1	S 18° E	S 34° E	18	21	123*	141			Zanzibar	
·832	·871‡	·867‡	·857	+·043	89	75‡	73‡	79	0	5·3	4·8	5·1	−1·6	5	16	8	3	1	1		7	21	N 20° W	N 31° W	60	56	125	127	9·25	1·90	Port Victoria (Seychelles).	
			·763					81	+ 2																		209	210	9·15	2·63	Mauritius (Pamplemousses).	

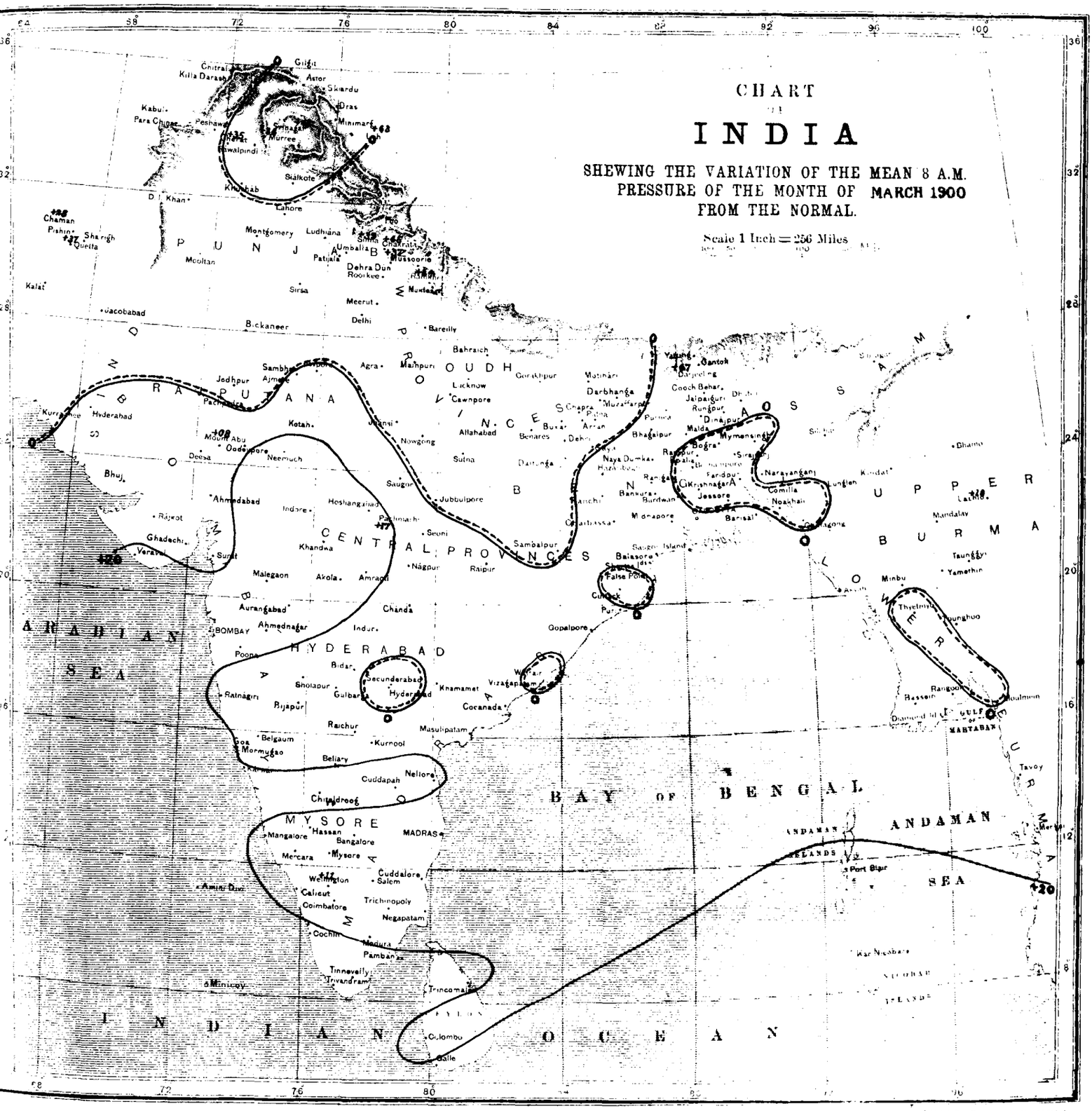
§ Mean of 29½ days. ¶ Wind Variable 1. * Corrected.

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 bounding the area of deficient pressure or negative variations.

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

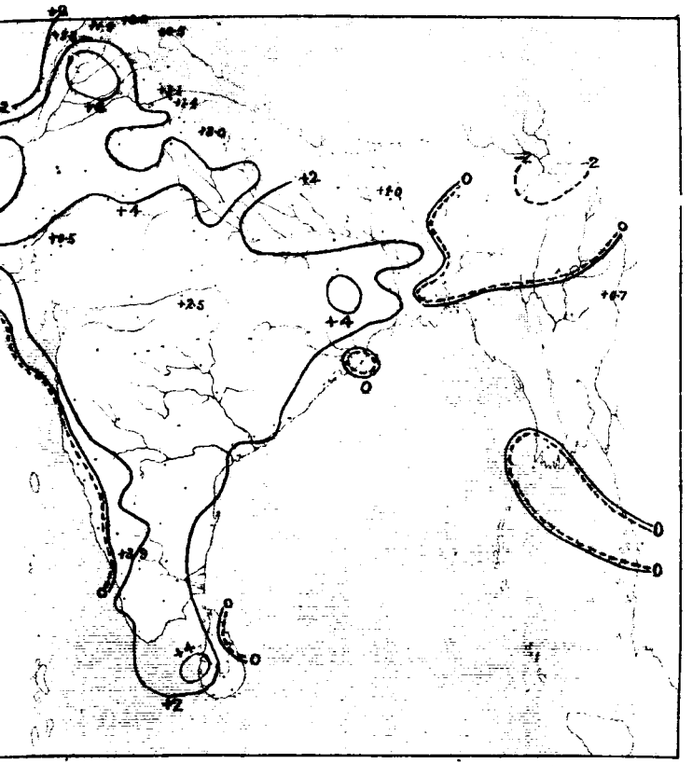
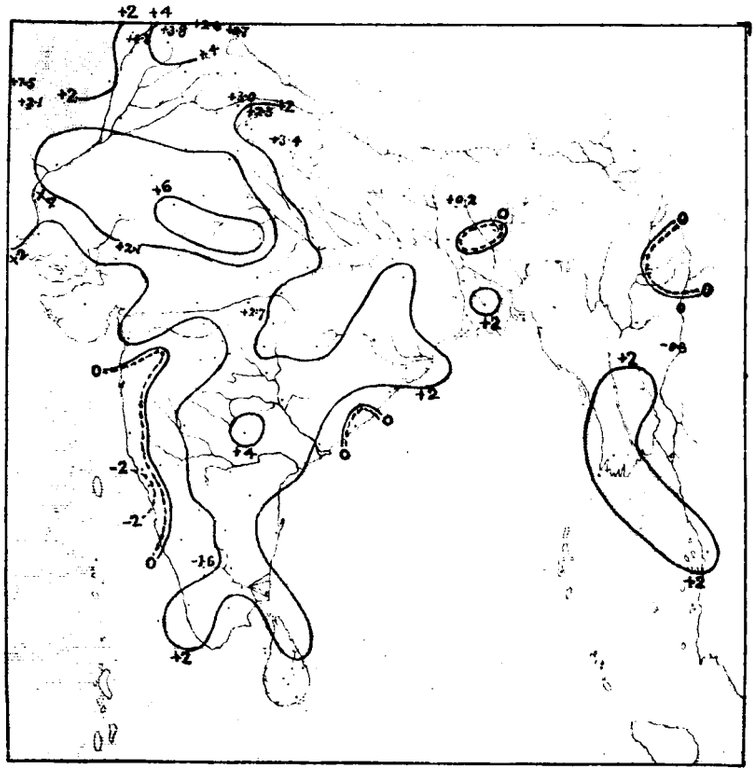


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

tinuous lines indicate that the mean maximum of month was in ess by amounts indicated by the attached numbers. Broken or dotted s that it was in defect by the amounts indicated by the attached nbers. Double lines are the lines of no variation, the broken line facing 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 the 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.

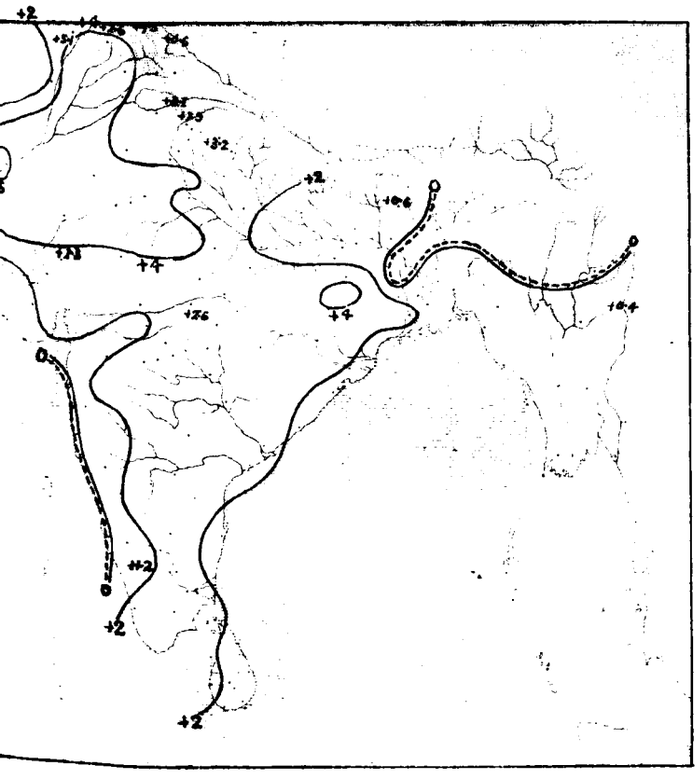
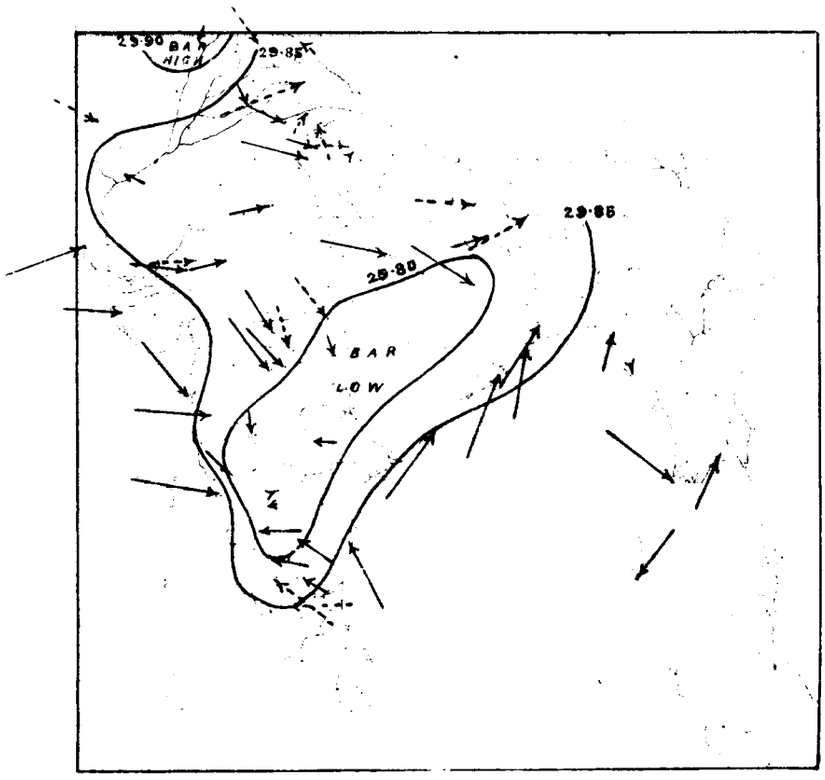


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF MARCH 1900.

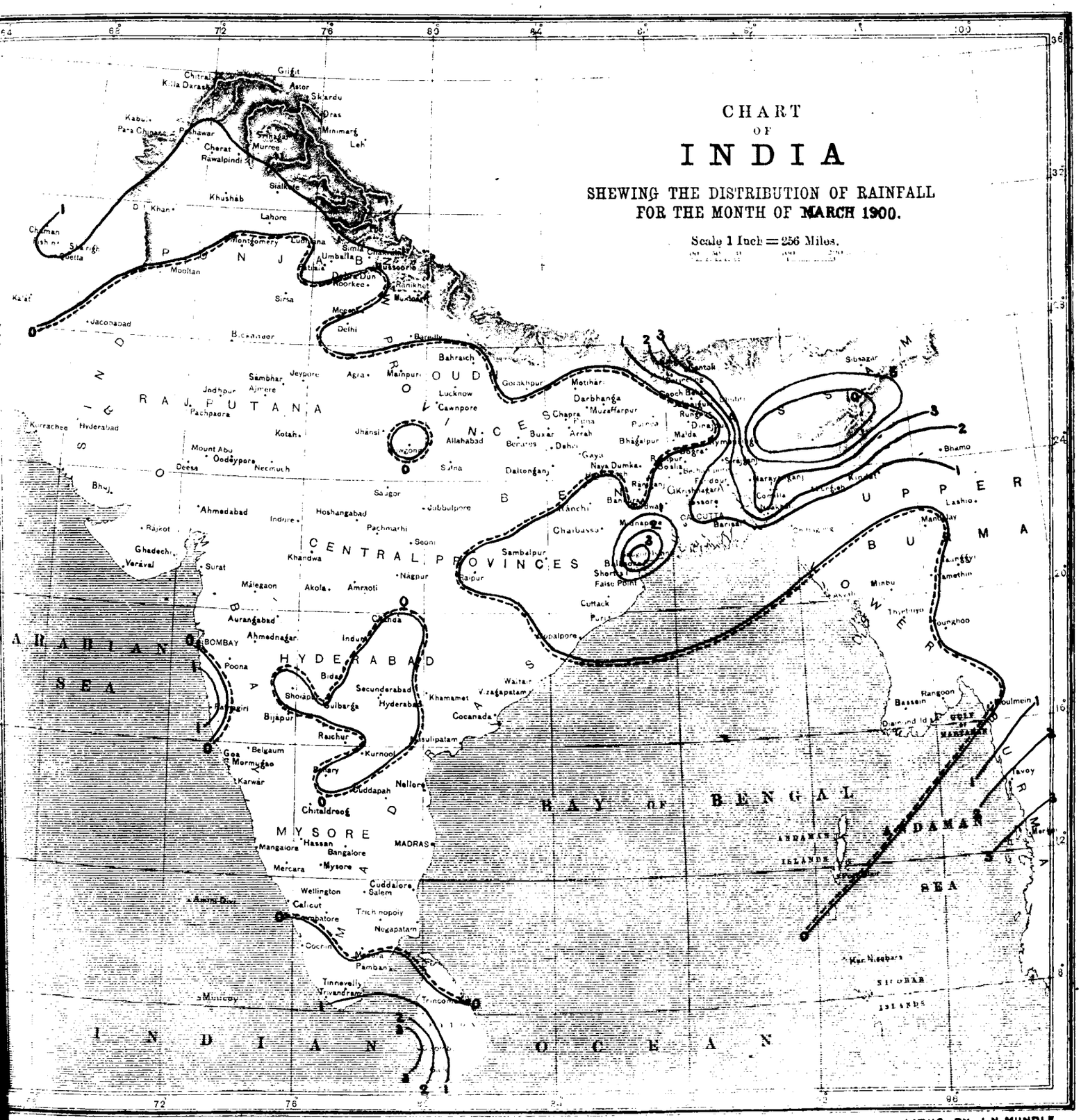


LITHO. BY J. H. MUNDLE.

Explanation.

ntinuous lines indicate that the mean daily temperature of month s in excess by amounts indicated by the attached numbers. Broken dotted lines that it was in defect by the amounts indicated by the ached numbers. Double lines are the lines of no variation, the broken facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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.



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 (182 in number), except those at the Hill Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those 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 variations of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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. North Western Provinces, East
19. South Oudh
20. North do.
21. North Western 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. North Punjab
32. West do.
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
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. East Coast, North
52(a). Do. do. (a)
53. Hyderabad, South
54. Madras, Central
55. East Coast, Central
56. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, APRIL, 1900.

INTRODUCTION.

THIS review of the weather in India during the month of April 1900 is based on observations taken daily at 8 A.M. at 216 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 weekly rainfall telegrams received during the month from the District Officers throughout India, 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, 1900.

Like April 1899, the month under review was more disturbed than usual over a large part of India. A succession of depressions passed eastward across Northern India, occasioning disturbed weather both on the hills and plains of Northern India. In the intervals, between these depressions, pressure rose quickly in the north, and the area of lowest pressure was transferred southward to the Peninsula. When this change took place unsettled weather was also transferred southward and thunderstorms became frequent and severe over Madras.

One important feature of the weather of the month was the frequency and severity of the thunder and hail storms over Assam. On the afternoon of the 18th a severe tornado passed through the south of the Goalpara district occasioning much damage and loss of life.

At the commencement of the month the general conditions were approximately normal except for the excessive heat, but the barometer was falling briskly at Quetta and, on the 2nd, a shallow depression was shown passing through the Punjab. It had occasioned rain in the extreme north-west and a fall of temperature had occurred over a large part of the country, but particularly in the Punjab, Sind, Rajputana and Central India and the day temperature was now below the normal in the first two areas. On the following day, the 3rd, a fresh depression had appeared in Sind and further rain had fallen in Baluchistan, the Upper India Hills and the West and Central Punjab. This rainfall continued until the 4th, and the effect on the temperature of North-West India and Baluchistan was very marked. This is shown by the

following variation data for the regions referred to, from the 1st to the 5th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	1st April.	2nd April.	3rd April.	4th April.	5th April.
	°	°	°	°	°
Baluchistan	—2·0	—1·2	—7·9	—8·1	+3·7
Punjab	+2·8	+1·3	—2·6	—9·7	—5·5
Sind	+2·8	+0·4	—0·3	—1·3	+0·2
Rajputana	+4·8	+2·9	0	—1·7	—1·9
Gujarat	—0·1	—0·3	—1·6	—1·3	—0·4
Central India	+3·8	+2·7	+2·8	—1·1	—0·1

The effect of this cloudy, disturbed weather was mainly shewn in the day temperature which on the 4th was 15° or more below the normal at the stations for which comparative data are given below :—

Station.	Maximum temperature.		
	Actual, 4th April 1900.	Normal, 4th April.	Variation of actual from normal, 4th April 1900.
Montgomery	72·0	96·8	—24·8
Sirsa	75·2	96·5	—21·3
Mooltan	73·3	92·7	—19·4
Dera Ismail Khan	70·3	87·6	—17·3
Khushab	73·2	90·1	—16·9
Peshawar	66·2	81·2	—15·0

On the 5th the weather was quiet, but on the 6th another depression appeared over Sind. The depression advanced through Rajputana into the Punjab where it intensified considerably on the 9th. It gave a good deal of rain to North-West India and occasioned a late fall of snow on the North-West Himalayas down to comparatively low elevations. In the meantime another shallow depression appeared about the same time over the Central Provinces. This depression also lasted till the 9th, when it was central over the east of the North-Western Provinces. It occasioned very unsettled weather in its neighbourhood so that on the 9th showery, unsettled weather was reported from the whole of Northern India. The following gives the average daily rain from the 6th to the 9th in the different divisions of Northern India :—

Province or Division.	Average actual rainfall in 24 hours preceding 8 A.M. of				Total rainfall of period from 6th to 9th April.
	6th April.	7th April.	8th April.	9th April.	
	Inch.	Inch.	Inch.	Inches.	Inches.
Punjab, South	0·05	0·07	0·04	0·08	0·24
Do. Central	0·04	0·09	0·15	0·08	0·36
Do. Submontane	0·04	0·05	0·04	0·17	0·30
Do. Hill Division	0·14	0·23	0·03	0·29	0·69
Do. North-West	0·11	0·15	0·09	0·34	0·69
Do. West	0·04	0	0·03	0·05	0·12
Oudh North	0	0	0·02	0·11	0·13
Do. South	0	0	0·01	0·08	0·09
North-Western Provinces, South-East.	0	0	0	0·01	0·01
North-Western Provinces, Central	0	0	0·02	0·15	0.17
Do. do. West	0	0·04	0·07	0·14	0·25
Do. do. Submontane.	0·06	0·30	0·10	0·39	0·85
North-Western Provinces (North-East).	0	0	0	0·04	0·04
South-West Bengal	0	0	0·45	0·23	0·68
North do.	0	0	0·06	0·37	0·43
East do.	0	0·04	0·32	0·24	0·60
Bihar	0	0	0·03	0·08	0·11
Orissa	0·01	0·03	0·12	0·07	0·23
Chota Nagpur	0	0	0·12	0·25	0·37
Baluchistan	0·02	0	0	0	0·02
Kashmir	0·31	0·23	0·59	1·09	2·22
Rajputana	0	0·07	0·26	0·07	0·40
Central India	0	0	0·03	0·03	0·06

Naturally under these conditions of weather the temperature was very low throughout Northern and Central India. The following gives data for the 9th and 10th in illustration :—

Province or division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	9th April.	10th April.
	°	°
Bengal	— 1·6	— 3·5
Orissa	— 4·1	— 1·0
Bihar	— 0·5	— 0·9
Chota Nagpur	— 1·3	— 0·4
North-Western Provinces and Oudh	—10·4	— 9·6
Punjab	— 7·4	—13·8
Sind	— 1·9	— 3·1
Rajputana	— 8·7	— 4·5
Central India	— 3·6	— 4·1

The principal feature in the temperature conditions was, however, the lowness of the day temperature which on the 9th and 10th was more than 20° below the normal at the stations for which comparative data are given below:—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
9TH APRIL	Mainpuri	70·3	99·9	—29·6
" "	Delhi	71·7	98·2	—26·5
" "	Bareilly	74·3	97·6	—23·3
" "	Agra	78·0	101·0	—23·0
" "	Meerut	75·5	96·7	—21·2
" "	Jaipur	77·7	98·5	—20·8
" "	Dehra Dun	68·0	88·6	—20·6
10TH "	Rawalpindi	56·9	85·4	—28·5
" "	Delhi	74·7	98·7	—24·0
" "	Peshawar	60·3	84·0	—23·7
" "	Roorkee	73·8	96·4	—22·6
" "	Sialkot	69·5	91·4	—21·9
" "	Khushab	73·2	95·0	—21·8
" "	Umballa	75·0	96·7	—21·7
" "	Meerut	75·5	97·0	—21·5
" "	Dehra Dun	69·0	89·1	—20·1

An important change in the distribution of pressure occurred suddenly on the 10th. The following gives the changes in 24 hours up to 8 A.M. of the 10th for stations in the Punjab, Kashmir, etc.:—

STATION.	Barometric change of 24 hours preceding 8 A.M. of 10th April.
	"
Dera Ismail Khan	+·463
Peshawar	+·414
Rawalpindi	+·413
Khushab	+·406
Lahore	+·398
Montgomery	+·386
Mooltan	+·384
Cherat	+·376
Sialkot	+·374
Murree	+·351
Srinagar	+·351
Dras	+·314
Ludhiana	+·303
Skardu	+·284
Leh	+·278
Sirsa	+·249
Bikaner	+·228
Umballa	+·207
Simla	+·199
Jacobabad	+·170
Allahabad	+·195
Benares	+·170
Lucknow	+·170
Dehra Dun	+·156
Delhi	+·150
Cawnpore	+·140

The result of this change was to establish a high pressure area over Northern India and to transfer the low pressure area southward to the Peninsula. The weather consequently cleared over Northern India while it became more cloudy and showery in the south. Fine weather continued in the north till the 13th, but in the south there were frequent and, in places, moderately heavy thundershowers.

On the 14th a fresh shallow depression was shown stretching across Northern India and showers had recommenced in the Punjab and the Upper India hills. This however, did not continue, and the weather, except for thundershowers in Assam and the Madras Deccan, was fairly fine until the 19th. This fine weather occasioned a brisk increase of temperature so that the mean temperature, which had been generally lower than usual

on the 10th, was generally higher than usual on the 19th. The following gives data for the latter date :—

Province or Division.	Variation from normal of Mean maximum temperature, 19th April.	Mean minimum temperature, 19th April.	Mean daily temperature, 19th April.
	°	°	°
Burma	+2·6	+1·5	+2·1
Assam	—0·1	—4·4	—2·3
Bengal	+2·7	+1·7	+2·2
Orissa	—0·6	+2·0	+0·7
Bihar	+1·9	+0·1	+1·0
Chota Nagpur	+1·0	+3·7	+2·4
North-Western Provinces and Oudh	+0·3	+0·7	+0·5
Punjab	—0·8	—0·7	—0·8
Sind	+6·9	+5·8	+6·4
Rajputana	+2·5	+7·1	+4·8
Gujarat	+3·9	+6·2	+5·1
Central India	+0·6	+5·1	+2·9
Central Provinces	+3·2	+7·0	+5·1
Berar	+4·8	+9·2	+7·0
West Coast	+0·6	+2·2	+1·4
Bombay Deccan	+3·9	+3·5	+3·7
Mysore	+4·9	+1·5	+3·2
Madras Coast	+0·5	+1·7	+1·1
" Deccan	+2·6	+2·7	+2·7
South India	+2·8	+1·6	+2·2

On the 20th pressure was giving way briskly in the north-west and a depression had appeared over Sind. This depression moved slowly across Rajputana into the south-east of the Punjab which it reached on the 22nd. It occasioned a few light showers in the north-west, which were followed by a brisk fall of temperature over the Punjab. The following gives temperature data for that province from the 20th to the 22nd in illustration :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 20th April.	21st April.	22nd April.
	°	°	°
Punjab	+1·6	+3·1	—1·5

On the 23rd pressure began to rise briskly in the north-west and a high pressure area was developed there, and held until the 27th. Northerly winds accompanied this development and light showers fell on the hills so that temperature decreased quickly all over North-Western and Central India. The following gives comparative data for Baluchistan, North-West India and the central parts of the country from the 23rd to the 27th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 23rd April.	24th April.	25th April.	26th April.	27th April.
	°	°	°	°	°
Baluchistan	—4·9	—10·4	—8·7	—6·9	—2·6
North-Western Provinces and Oudh.	+0·7	— 0·3	—3·1	—3·4	—5·8
Punjab	—2·8	— 6·1	—7·1	—7·2	—6·8
Sind	+2·9	— 0·6	—5·3	—1·1	—3·0
Rajputana	+3·1	— 0·2	—0·6	—1·6	—3·1
Gujarat	+2·1	+ 0·3	—0·5	—2·0	+2·0
Central India	+3·9	+ 1·6	—0·9	+0·6	—0·7
Central Provinces	+4·9	+ 3·1	+2·0	+2·2	—1·7
Berar	+4·3	+ 3·6	+0·5	+4·2	—1·2

In the meantime the change in the distribution of pressure had been accompanied with an extension of the showery area in the south, and this had been accompanied with a fall of temperature. The following gives comparative data for the Madras and Mysore divisions from the 23rd to the 27th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 23rd April.	24th April.	25th April.	26th April.	27th April.
	°	°	°	°	
Mysore	+3·8	+3·1	+2·1	+0·7	—2·4
Madras Coast	+1·4	+0·4	—0·2	—1·4	—5·1
Madras Deccan	+3·4	+3·5	+3·0	—1·2	—4·5
South India	+1·4	—2·6	—4·5	—5·6	—4·9

On the 28th the heat was less than usual in all the divisions except those in Burma and the extreme north-east of India. The following gives data for Burma, Assam, Bengal, Orissa, Chota Nagpur, the North-Western Provinces, the Punjab, Rajputana, the Central Provinces, Mysore, the Madras Coast and the Madras Deccan for the 24 hours ending at 8 A.M. on the 28th to illustrate the

distribution of temperature, relatively to the normal, at this time :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 28th April.	Mean minimum temperature, 28th April.	Mean daily temperature, 28th April.
	°	°	°
Burma	+ 5·4	+4·2	+4·8
Assam	+ 1·0	+2·4	+1·7
Bengal	+ 2·4	+3·0	+2·7
Orissa	− 8·1	−2·9	−5·5
Chota Nagpur	−10·8	−5·7	−8·3
North-Western Provinces and Oudh.	− 4·5	−5·7	−5·1
Punjab	− 3·2	−4·1	−3·7
Rajputana	+ 4·3	−7·6	−6·5
Central Provinces	− 6·9	−2·8	−4·9
Mysore	− 8·7	−2·1	−5·4
Madras Coast	−11·0	−4·1	−7·6
Madras Deccan	− 9·9	−5·7	−7·8

On the 29th and 30th pressure returned towards more normal conditions and though thunder showers continued in Assam and North-East India, they ceased altogether or diminished, both in amount and extent, elsewhere. In consequence there occurred a general increase of heat and on the last day of the month the deficiency in the mean temperature had been very considerably reduced. One of the most marked features of the weather of the last week of the month was the very low day temperatures. The following gives data for the stations at which this deficiency in the day temperature was most marked :—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
24TH APRIL	Rawalpindi	80·0	92·7	−12·7
,, ,,	Montgomery	91·5	104·2	−12·7
,, ,,	Peshawar	78·1	90·6	−12·5
25TH ,,	Madura	87·4	100·0	−12·6
,, ,,	Montgomery	92·0	104·1	−12·1
26TH ,,	Bareilly	89·9	102·6	−12·7
,, ,,	Madura	88·4	100·0	−11·6
27TH ,,	Gorakhpur	86·4	101·4	−15·0
,, ,,	Nellore	89·3	102·8	−13·5
,, ,,	Cocanada	87·1	98·4	−11·3
,, ,,	Sirsa	94·3	105·0	−10·7
28TH ,,	Nellore	83·8	103·6	−19·8
28th April	Cocanada	80·0	99·2	−19·2
,, ,,	Masulipatam	78·0	96·8	−18·8
,, ,,	Cuddapah	91·0	105·5	−14·5
29TH ,,	Cocanada	81·0	99·4	−18·4
,, ,,	Masulipatam	81·5	97·0	−15·5
,, ,,	Nellore	89·3	104·8	−15·5
30TH ,,	Cuttack	88·4	103·5	−15·1
,, ,,	Cocanada	86·1	99·2	−13·1
,, ,,	Chaibassa	94·1	106·6	−12·5

Pressure.—The mean pressure of the Indian land area was 0·021″ above the normal. Pressure, relatively to this general condition, was in slight to moderate excess over the Punjab, and part of the Gangetic Plain and in slight defect in Tenasserim and part of Lower Burma. Elsewhere the pressure on the mean of the month was practically normal. Except in North-East India the vertical pressure anomalies, though small, were generally negative. At Darjeeling, on the contrary, the vertical anomaly was positive and moderate in amount.

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

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A.M. pressure of April 1900.	Pressure anomaly, April 1900.
	″	″
Burma Coast and Bay Islands	+·008	−·013
Burma Inland	+·019	−·002
Assam	+·019	−·002
Bengal and Orissa	+·021	0
Gangetic Plain and Chota Nagpur	+·025	+·004
Upper Sub-Himalayas	+·037	+·016
Indus Valley and North-West Rajputana	+·036	+·015
East Rajputana, Central India and Gujarat	+·019	−·002
Deccan	+·019	−·002
West Coast	+·021	0
South India	+·015	−·006

Temperature.—The variations of the mean temperature conditions from the normal were chiefly determined by the unusual amount and distribution of the rainfall of the month. A succession of depressions passed from west to east across Northern India giving snow on the hills and rain on the plains of Northern India. In consequence the mean temperature of the month was below the nor-

over parts of North-West India and of the Gangetic Plain as well as over the Assam Valley, South-West Bengal and part of the coasts of the Peninsula. Over the remainder of India the mean temperature was in excess, the excess having been greatest and more than 2° in amount within a broad band stretching from Burma as far as Southern Rajputana.

The mean maximum or day temperature was in defect over the greater part of North-Western India, Central India, the Gangetic Plain and West Bengal as well as in Upper Assam, Upper Burma and both coasts of the Peninsula. The deficiency was large in the Punjab. Over the remainder of India the mean maximum temperature was in excess. The excess was greatest in Central Burma. The highest temperatures recorded during the month were registered in Sind and the west of Rajputana and varied between 114° and 116°.

The mean minimum or night temperature of the month was in defect in the extreme north-west of India, as well as at a few places in North-East India and on the coasts of the Peninsula. The only important area of deficiency was in the north-west, where the variations were between—2°·6 and—5°·1. Over the whole of the rest of the country the night temperature on the mean of the month was higher than usual. The greatest excess was reported from Southern Rajputana, the south of the Central Provinces and Central Burma.

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

Meteorological Province.	Variation of actual from normal of		
	Mean maximum temperature, April 1900.	Mean minimum temperature, April 1900.	Mean daily temperature, April 1900.
	°	°	°
Burma Coast and Bay Islands	+2·0	+3·5	+2·8
Burma Inland	+2·6	+3·1	+2·9
Assam	—0·8	0	—0·4
Bengal and Orissa . . .	+0·6	+0·6	+0·6
Gangetic Plain and Chota Nagpur.	—1·3	+0·6	—0·4
Upper Sub-Himalayas . .	—5·3	—1·3	—3·3
Indus Valley and North-West Rajputana.	—3·4	—0·8	—2·1
East Rajputana, Central India and Gujarat.	—1·3	+2·4	+0·6
Deccan	+0·9	+2·3	+1·6
West Coast	—0·7	+0·1	—0·3
South India	+0·1	+0·9	+0·6

Winds.—The winds were stronger than usual in Bengal and were steadier and more westerly than the average. In Orissa, Chota Nagpur and Bihar, on the contrary, the wind's direction was less westerly than the normal and the force was normal or low. In North-West India the wind was generally more westerly than the average, but the wind was unsteady, and in the case of the Punjab and Sind, was lighter than usual. The wind was more westerly than usual over the north of the Peninsula and more easterly than usual in the south. The westerly wind was stronger and steadier and the easterly wind lighter and less steady than the average.

Humidity.—The mean humidity of the month was slightly above the normal over the greater part of North-Western and Central India as well as over the Bombay Deccan and Mysore and locally at Madras and Chittagong. The excess was greatest and considerable over the Central Provinces and Berar. The mean humidity of the month was also in excess over the North-Western Himalayas, and, in Kashmir, the excess was larger than in any part of India. Over the remainder of India the mean humidity was lower than usual, but the deficiency was small and generally unimportant, except in Sind, where, at Kurrachee, the air was unusually dry (—10). The following table gives variation data of the mean aqueous vapour pressure and mean humidity of nine meteorological provinces for the month under review :—

Meteorological Province.	Mean Absolute Humidity.		Mean Relative Humidity	
	Average actual, April 1900.	Variation of actual from normal, April 1900.	Average actual, April 1900.	Variation of actual from normal, April 1900.
	"	"	%	
Burma Coast and Bay Islands .	·881	+·028	71	—3
Bengal and Orissa . . .	·883	+·022	75	—1
Gangetic Plain and Chota Nagpur	·413	—·007	36	—1
Upper Sub-Himalayas . .	·338	—·028	39	+1
Indus Valley and North-West Rajputana.	·499	—·002	50	—1
East Rajputana, Central India and Gujarat.	·343	0	30	+2
Deccan	·395	0	32	—1
West Coast	·794	—·030	71	—3
South India	·636	+·027	57	+1

Cloud.—There was less cloud than usual over North Bombay, Rajputana, the West Coast, the south of the Peninsula and Lower Burma. The increased serenity was slight except at Rangoon where the cloud amount was 1·9 (or 44 per cent.) less than usual. In all other parts of the Indian area the sky was more cloudy than the average. There were two areas of considerable excess. One covered the North-West Himalayas and the submontane districts of Upper India, the greatest excess in this area being reported from Simla (+1·9) and Meerut (+1·8). The second area covered South-West Bengal, the east and centre of the Peninsula, and the greater part of the

Bay. The excess in this instance was larger than in the first area, and was more than 2 at Hazaribagh (+2·6) and Bellary (+2·8). The following table gives variation data of the mean cloud amount of nine meteorological divisions for the month of April :—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, April 1900.	Variation of actual from normal, April 1900.
Burma Coast and Bay Islands	3·1	−0·3
Bengal and Orissa	4·8	+1·1
Gangetic Plain and Chota Nagpur	2·9	+1·1
Upper Sub-Himalayas	3·6	+1·2
Indus Valley and North-West Rajputana	2·7	−0·1
East Rajputana, Central India and Gujarat	1·4	−0·6
Deccan	3·0	+0·5
West Coast	1·8	−0·6
South India	5·1	+1·3

Rainfall.—April 1900, like the same month last year, was abnormally wet over the greater part of the country. The only important exceptions were parts of Bombay, of West and North Bengal and practically the whole of Burma. Practically no rain fell over Khandesh, the east of the North-Western Provinces and North Bihar, and a total of less than ¼ of an inch over South Bihar, South Oudh, the central division of the North-Western Provinces, the east submontane division of the North-Western Provinces, the Konkan, Berar, Gujarat, Kathiawar, Sind and the east of Central India. Over the remainder of India fair rain was received, which, in the majority of cases, was in excess of the normal. A series of depressions entered India from the north-westward and passed across Northern India and the hills and north divisions of the Punjab, and the hills and west submontane divisions of the North-Western Provinces received a total rainfall for the month varying between 1 and 3½ inches. At the same time Assam was visited by numerous and severe hail and rain storms, and the rainfall of that province was heavier than usual, more particularly in the Surma Valley region. In Rajputana and North Bombay the thunderstorms were more severe and frequent than usual, but nevertheless, though the rainfall exceeded the small normal, the total fall for the month was small and comparatively unimportant. During the intervals of fine weather in Northern India, when pressure was recovering from the different depressions, thunderstorms became frequent and severe in the Peninsula, and the total rainfall of the month was in excess in the following divisions :—

DIVISION.	RAINFALL.			
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Mysore	1·90	1·31	+0·59	+45
Bombay Deccan	0·82	0·80	+0·02	+ 3
Central Provinces, West	0·25	0·19	+0·06	+32
Do. Central	0·33	0·29	+0·04	+14
Do. East	1·02	0·56	+0·46	+82
Malabar	4·30	3·33	+0·97	+ 29
Madras South Central	3·45	1·71	+1·74	+102
East Coast North	1·63	0·84	+0·79	+ 94
" " " (a)	2·59	1·45	+1·14	+ 79
Madras Central	1·31	0·61	+0·70	+115
East Coast Central	1·99	0·45	+1·54	+342
" " South	3·34	0·91	+2·43	+267
Madras South	3·11	2·21	+0·90	+ 41

The principal features in the rainfall distribution were, hence, the lightness of the rainfall in Burma, the north and west of Bengal, the west of the Central Provinces and part of Bombay and the excess of rain elsewhere. The following table gives rainfall data of the month for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	RAINFALL.			
	Mean actual for April 1900.	Mean normal for April.	Variation of actual from normal, April 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	1·32	2·53	−1·20	− 47
Burma Inland	1·15	1·38	−0·23	− 17
Assam	14·00	9·51	+4·48	+ 47
Bengal and Orissa	2·40	2·60	−0·20	− 8
Gangetic Plain and Chota Nagpur	0·83	0·35	+0·32*	+ 91
Upper Sub-Himalayas	1·28	0·60	+0·75*	+125
Indus Valley and North-West Rajputana.	0·49	0·40	+0·09	+ 23
East Rajputana, Central India and Gujarat.	0·33	0·06	+0·33*	+550
Deccan	0·58	0·43	+0·13*	+ 30
West Coast	2·53	1·57	+0·96	+ 61
South India	2·79	1·18	+1·68*	+142

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

Atmospheric Pressure.

The mean pressure of the Indian land area for the month of April 1900 was 0·021″ above the normal. Pressure on the mean of the month exceeded the normal at every station except Moulmein and Tavoy. Relatively to the general condition, pressure was in slight to moderate excess over the Punjab and part of the Gangetic Plain and in slight defect in Tenasserim and part of Lower Burma. Elsewhere pressure was practically normal, though it was in trifling defect over North Bombay and a considerable part of the Peninsula. The excess was 0·02″ or more in amount at the following stations :—

Province or Division.	Station.	Variation from normal of mean 8 A.M. pressure of April 1900.	Pressure anomaly, April.
		″	″
Punjab	Khushab	+·067	+·046
"	Sialkot	+·060	+·039
"	Rawalpindi	+·058	+·037
"	Montgomery	+·051	+·030
"	Lahore	+·049	+·028
"	Peshawar	+·048	+·027
"	Dera Ismail Khan	+·043	+·022
"	Mooltan	+·041	+·020
Gangetic Plain	Mainpuri	+·042	+·021

Pressure was more than 0·02″ in defect at the following stations :—

Province or Division.	Station.	Variation from normal of mean 8 A.M. pressure of April 1900.	Pressure anomaly, April 1900.
		″	″
Burma	Tavoy	—·004	—·025
	Moulmein	—·002	—·023
	Toungoo	0	—·021
North Bombay	Bhavnagar Para	0	—·021

Pressure was in slight defect of the normal at the inner stations in Kashmir, but was in excess at all the hill stations on the outer ranges of the Himalayas, while pressure was nearly normal at the central and southern hill stations. Except in North-East India the vertical pressure anomalies, though small, were generally negative. This is shown by the following table which gives comparative data for ten pairs of stations :—

Hill Station.	Variation of actual from normal pressure, April 1900.	Plain Station.	Variation of actual from normal pressure, April 1900.	Vertical pressure anomaly (Hill—Plain).
	″		″	″
Leh	—·033	Lahore	+·049	—·082
Quetta	+·022	Jacobabad	+·031	—·009
Murree	+·022	Rawalpindi	+·058	—·036
Simla	+·021	Ludhiana	+·028	—·007
Chakrata	+·032	Roorkee	+·036	—·004
Ranikhet	+·026	Bareilly	+·035	—·009
Darjeeling	+·054	Dhubri	+·016	+·038
Pachmarhi	+·013	Hoshangabad	+·022	—·009
Mount Abu	—·003	Deesa	+·008	—·011
Wellington	+·004	Coimbatore	+·013	—·009

The following gives the chief abnormal features of the pressure distribution of the month :—

1st.—The mean pressure of the whole of India was in moderate excess.

2nd.—The excess was very general, extending to all parts of the Indian land area except part of Tenasserim.

3rd.—Pressure was in local excess in the Punjab, the Gangetic Plain and the central parts of India, and in local defect in Burma, Assam and Bengal and in the Peninsula and in North Bombay.

4th—The vertical pressure anomalies were generally small and were generally negative except in North-East India.

Barometric depressions and cyclonic storms of the month.

The weather during the month of April was usually disturbed over the greater part of the Indian area. A series of depressions, apparently originating in the Indus district, passed eastward across Northern India, and both in the north-west and in the north-east, thunderstorms giving hail and rain were unusually numerous. In the intervals between these depressions pressure rose rapidly in the north-west, and anti-cyclonic conditions were developed over North-West India. On these occurred the area of lowest pressure was transferred southwards to the

Peninsula and frequent and unusually heavy rain was received over Southern India.

At the commencement of the month the barometer was falling everywhere and on the 2nd a shallow depression was shown over the Punjab. This depression had occasioned showers in Baluchistan and on the North-West Himalayas, but the rainfall amounts were nowhere large. By the next morning this depression had reached the Kumaon Himalayas, but a fresh shallow depression was appearing over or entering Upper Sind. The weather was consequently very unsettled over Upper India. Moderately heavy rain had fallen in Baluchistan and the North-West Punjab Hills and light rain in the west and centre of the Punjab. By the next morning, the 4th, there had occurred a very rapid barometric rise over the whole of North-West India, while the area of low pressure had been transferred very quickly eastward and was shown over North Bihar. General rain had fallen in the north-west, both on the hills and plains, and the amounts had exceeded 1 inch at several stations. The weather was, however, clearing in this area on the morning of the 4th. On the other hand, the weather was cloudy in the north-east and light thundershowers had been received. On the 5th a large high pressure area covered North-West India, while pressure was lowest along the foot of the Eastern Himalayas. Consequently westerly and north-westerly winds prevailed over a large part of the country and the number of thunderstorms had very considerably decreased and fine weather prevailed over the greater part of the country.

These conditions were, however, of only brief duration. On the 6th a fresh depression was shown entering Sind from the westward and light showers were reported from Baluchistan and the extreme north-west. This depression proved to be very shallow at first, and advanced slowly north-eastward into Rajputana and the South Punjab on the 7th. At the same time a second depression was developed over the east of the North-Western Provinces and of the Central Provinces. Showery weather was reported from the Punjab, but the eastern depression had given no rain. On the next day, the 8th, both depressions were better defined and the weather was disturbed all over Northern India, scattered thunder showers having occurred from Assam in the east to Peshawar and Cherat in the west. Both depressions intensified during the succeeding 24 hours and small centres were shown, in one case, between Khushab and Montgomery, and in the other near Benares. The disturbed weather had at the same time intensified and rain had fallen as scattered showers all over Northern India. Snow was falling in Kashmir and on the higher elevations of the Himalayas, and the mean temperature was between 5° and 17° below the normal in the North-Western Provinces and between 4° and 17° below in the Punjab. The deficiency was principally due to the lowness of the day temperatures, the most remarkable instances of which are given below :—

Province.	Station.	Variation from normal of		
		Maximum temperature, 9th April.	Minimum temperature, 9th April.	Mean temperature, 9th April.
		°	°	°
N.-W. Provinces and Oudh.	Mainpuri	−29·6	−5·3	−17·5
	Agra	−23·0	−7·6	−15·3
	Bareilly	−23·3	−4·9	−14·1
	Meerut	−21·2	−5·2	−13·2
	Dehra Dun	−20·6	−5·1	−12·9
	Roorkee	−19·3	−4·7	−12·0
	Jhansi	−15·1	−8·7	−11·9
	Cawnpore	−15·9	−5·7	−10·8
	Lucknow	−12·6	−4·7	−8·7
	Gahraich	−12·2	−1·1	−6·7
	Benares	−10·0	−1·0	−5·5
Punjab	Delhi	−26·5	−8·6	−17·6
	Peshawar	−16·0	−7·1	−11·6
	Khushab	−6·4	−15·5	−11·0
	Rawalpindi	−11·7	−9·0	−10·4
	Sirsa	−12·0	−3·1	−7·6
	Dera Ismail Khan.	−6·7	−7·3	−7·0
	Umballa	−15·5	+2·0	−6·8
	Montgomery	−9·1	−2·2	−5·7
	Ludhiana	−9·5	+0·3	−4·6

The following gives some of the more noteworthy falls of rain over Northern India during the 24 hours preceding 8 A.M. of the 9th :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 9th April.
		Inches.
Gurdaspur	Dalhousie	1·70
Jhelum	Jhelum	1·40
Rawalpindi	Kahuta	1·26
"	Murree	1·20
Hazara	Abbottabad	1·13
Almora	Champawat	1·80
"	Choukuri	1·60

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 9th April.
		Inches.
Pilibhit	Pilibhit Kachahri	1·32
,,	,, City	1·26
Dehra Dun	Mussooree	1·16
Almora	Berinag	1·15
Naini Tal	Naini Tal	1·13
Almora	Purana Thal	1·02
Bareilly	Nawabganj	1·02
Kashmir	Vantipore	3·54
,,	Sri Protap Singh Pora	2·30
,,	Srinagar	2·18
,,	Pattan	2·10
,,	Sopore	2·03
Tippera	Nasirnagar	4·07
Bankura	Bankura	1·65
Bogra	Sherpur	1·55
Mymensingh	Kishorganj	1·53
Sirohi	Sirohi	1·28

Between 8 A.M. on the 9th and 8 A.M. on the 10th, the pressure rose with great rapidity over Northern and particularly North-Western India. The following gives some of the more noteworthy of the changes in the 24 hours :—

Province or Division.	Station.	Barometric change in 24 hours preceding 8 A.M. of 10th April.
		Inches.
North-West India	Dera Ismail Khan	+·463
	Peshawar	+·414
	Rawalpindi	+·413
	Khushab	+·406
	Lahore	+·398
	Montgomery	+·386
	Mooltan	+·384
	Cherat	+·376
	Sialkot	+·374
	Murree	+·351
	Ludhiana	+·303
North-West India	Sirsa	+·249
	Umballa	+·207
	Bikaner	+·228
	Simla	+·199
	Jacobabad	+·170
	Dehra Dun	+·156
	Delhi	+·150
	Allahabad	+·195
	Benares	+·170
	Lucknow	+·170
	Cawnpore	+·140

As a result of this rise a large high pressure area or anticyclone was formed over North-West India, while two shallow residual depressions were shown, one over the east of the Central Provinces, the other over Sind. Rain had again been received over a large part of Northern India and at Murree and in Kashmir snowstorms were reported. The rain amounts were smaller than on the preceding day, but the following considerable falls were reported :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 10th April.
		Inches.
Karnal	Thanesar	2·37
,,	Kaithal	2·35
Delhi	Ballabgarh	1·85
Ludhiana	Ludhiana	1·65
Kangra	Dharmsala	1·50
Hazara	Mansahra	1·47
Patiala State	Barthala	1·21
Hazara	Abbottabad	1·19
Karnal	Gulah	1·05
Bijnor	Najibabad	1·35
Saharanpur	Salimpur	1·80
Almora	Ranikhet	1·52
Dehra Dun	Kalsi	1·74
,,	Chakrata	1·45

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 10th April.
		Inches.
ALMORA	Pithoragarh	1·40
KASHMIR	Domel	1·48
,,	Utar Machhipore	1·08
TIPPERA	Nasirnagar	3·50
DARJEELING	Siliguri	3·16
JALPAIGURI	Bhagatpur	1·85
MANBHUM	Raghunathpur	1·80
PABNA	Pabna	1·54
MYMENSINGH	Atia	1·53

Temperature remained most unusually low. The deficiency was again most marked in the day temperatures and the following gives some of the largest variations from the normal in the case of the maximum temperatures:—

PROVINCE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual, 10th April.	Normal, 10th April.	Variation of actual from normal, 10th April.
		°	°	°
PUNJAB	Srinagar	37·0	68·8	—31·8
	Cherat	46·7	76·0	—29·3
	Rawalpindi	56·9	85·4	—28·5
	Delhi	74·7	98·7	—24·0
	Peshawar	60·5	84·0	—23·7
	Ranikhet	50·3	73·1	—22·8
	Murree	43·1	65·8	—22·7
	Chakrata	46·7	68·9	—22·2
	Sialkot	69·5	91·4	—21·9
	Khushab	73·2	95·0	—21·8
	Umballa	75·0	96·7	—21·7
	Montgomery	80·5	99·7	—19·2
	Leh	37·0	55·7	—18·7
	Ludhiana	77·1	95·6	—18·5
	Sirsa	80·2	98·6	—18·4
	Simla	48·3	64·7	—16·4
	Lahore	78·2	93·7	—15·5
	D. I. Khan	75·3	90·1	—14·8
N.-W. PROVINCES.	Roorkee	73·8	96·4	—22·6
	Meerut	75·5	97·0	—21·5
	Bareilly	77·8	97·9	—20·1
	Dehra Dun	69·0	89·1	—20·1
	Mainpuri	83·8	100·7	—16·9
	Agra	84·5	101·2	—16·7

On the 11th, though the sky was still cloudy, the rainfall had generally ceased over Northern India. Pressure in India was highest in the North Punjab and lowest over the Bombay Deccan and thundershowers had commenced over Central and Southern India. These conditions lasted till the 13th, during which period a good deal of rain fell during thunderstorms over the Peninsula. The following gives some of the more noteworthy falls in 24 hours:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
COIMBATORE	Talavadi	10th April	4·02
,,	Bhavani	,, ,,	1·70
MADURA	Vedasandur	,, ,,	1·65
COIMBATORE	Mettupalaiyam	,, ,,	1·65
KURNOOL	Allagadda	,, ,,	1·64
MADURA	Dindigul	,, ,,	1·60
NILGIRIS	Kotagiri	,, ,,	1·56
SALEM	Thalli	,, ,,	1·50
MADURA	Vattanam	11th ,,	1·53
TINNEVELLY	Tenkasi	,, ,,	1·45
KATHIAWAR	Wadhwan	,, ,,	1·15
TANJORE	Mannargudi	12th ,,	1·45
	Kottayam Engineer's office.	,, ,,	1·40
DHARWAR	Haveri	13th ,,	1·75
TRAVANCORE STATE	Pattanapuram	,, ,,	1·75
MALABAR	Chowghat	14th ,,	2·68
TRAVANCORE STATE	Padmanabhapuram	,, ,,	1·82
,, ,,	Velavencode	,, ,,	1·32
MALABAR	Badagara	,, ,,	1·25
DHARWAR	Savnur (State)	,, ,,	1·08

On the 13th pressure was giving way briskly to rapidly in the north-west, and on the 14th a shallow band of relatively low pressure was shown stretching east and west across Northern India from Upper Sind to East Bengal. There was not much change during the next few days, but the low pressure area in the east was accompanied with severe thunderstorms over Assam and parts of Bengal. A tornado occurred in Assam on the afternoon of the 18th. On the 19th the barometer was giving way slightly to briskly in the north-west of India and on the morning of the 20th a depression was shown passing through Sind and Western Rajputana. Light rain had commenced at some of the hill stations in the north-west, while there had been no falling off in the number and extent of the thunderstorms over North-East India. On the 21st the depression in the north-west was still shown in the same position, but a shallow additional depression had been developed over the centre of the North-Western Provinces. A few light showers had been received in different parts of the country. The depression in North-West India travelled east-north-eastward during the succeeding 24 hours and at 8 A. M. on the 22nd lay over the east of the Punjab. Light thundershowers had continued to be received in the north-west and north-east and moderate thundershowers were reported from Malabar. The depression advanced along the line of the hills during the 22nd and was shown over the east of the North-Western Provinces on the 23rd and 24th whence it moved southward into the Central Provinces. Numerous thundershowers occurred in the north-east during this period of which the following were the principal falls in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
Darjeeling	Buxar	23rd April	1·60
Orissa, tributary mahals	Hindol	" "	1·06
Nadia	Chuadanga	24th "	2·15
Noakhali	Fenny	" "	1·79
Burdwan	Kalna	" "	1·64
Chittagong hill-tracts	Bandarban	" "	1·62
Chittagong	Mirsarai	" "	1·57
" Hill-tracts	Rangamati	" "	1·49
Chittagong	Fenoa	" "	1·41

The depression gave no rain of any importance to the central districts, but in South India the thundershowers were both heavy and numerous.

On the 25th pressure was increasing briskly over the greater part of Northern India and on the 26th a large high pressure area was shown over North-West India, while a shallow depression lay over Berar and the Bombay Deccan. These conditions were accompanied with general showers over Southern India, while at the same time there was no cessation of the rainfall in the north-east. These conditions lasted during the 27th, but on the 28th pressure became more uniform and the remainder of the month was quiet, though in North-East India thunder and hail storms were reported uninterruptedly.

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) *Killa Drosh.*—"The snowline descended in January from 11,000 to 5,000 feet, and there have been no less than 38 recorded snowfalls during the winter. The snowfall was very general and extended over the whole of the Chitral district. The accumulation of snow on the Lowari Pass this year has been much greater than usual, and the general snowfall of the winter (1899—1900) has been much heavier than for very many years previously."

(2) *Tirah.*—The following reports of the weather have been received through the Deputy Commissioner, Kohat.

The Assistant Commissioner, Thal, reports asfol lows:—

"The conditions of the past winter, as compared with those of that preceding it, were for this sub-division quite abnormal. Snow fell to a depth of from 1 to 2 inches from Thal to Raisan on the 16th January and lay without melting for several days. The lower hills of Somari and Mir Khweli were covered for several weeks, as were also the lower hills to the north of the Miranza valley. Snow fell intermittently on the Samana from the 16th January to the 2nd March when a break occurred, but the cold snap experienced at the beginning of April brought another fall as late as the 8th April. To give an idea of the unusual character of the weather prevailing in the middle of January, it is sufficient to observe that the snowfall for the 16th, 17th and 18th of that month was 2, 3 and 4 feet respectively, with drifts in places ranging to 9 or 10 feet."

The Commandant, B. M. Police, in a letter dated 17th

May, describes the weather in Tirah during the past winter as follows:—

"As in Hangu and in the Kohat district generally, the weather conditions in Tirah have been abnormal during the winter months. The snow, which in ordinary years falls about the last week in December or first in January, did not this year fall till as late as the 16th January, but this fall was succeeded by several others which terminated in one as late as April—a fact unprecedented within the knowledge of the present generation of Orakzais. On the whole, the snowfall during the winter both in Tirah and the Afridi tracts to its east, including the Kohat pass, was far in excess of ordinary years."

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Rawalpindi.*—The Deputy Commissioner reports that the snowfall at Murree during April was 1 ft. 2 inches.

(2) *Kashmir.*—The following account of the snowfall in Kashmir during the past winter has been received from Dr. Mitra, Meteorological Reporter, Kashmir State:—

"The past winter in Kashmir was much colder than the previous one. Snow commenced early, and the higher ranges had their first fall of snow in October. The first fall in Srinagar was on the 5th January. The following table gives the total snowfall up to the end of April as measured in Srinagar (in inches of water):—

January.	Amount of snowfall measured as water.	February.	Amount of snowfall measured as water.	April.	Amount of snowfall measured as water.
	Inches.		Inch.		Inches.
5th . .	0·16	1st . .	0·03	9th . .	1·50
6th . .	0·08	8th . .	0·40	10th . .	0·45
14th . .	0·02	11th . .	0·30		
15th . .	0·67	12th . .	0·34		
16th . .	0·12	13th . .	0·03		
17th . .	0·03	17th . .	0·02		
18th . .	0·22	22nd . .	0		
21st . .	0·50	24th . .	0		
22nd . .	1·35	25th . .	0·68		
23rd . .	0·16	26th . .	0		
31st . .	0·07	28th . .	0		
TOTAL .	3·38		1·80		1·95

"The sky was less overcast than last winter, but there was more rainfall. It will be seen that the period of heaviest snowfall was from the 5th January to the 14th February. The snow began later, but also continued later. The last snowfall of the season in Srinagar was on 9th April. The oldest inhabitants say that snow has not fallen so late as this during the previous 38 years.

"From all accounts it appears that the higher ranges have received more snow than during the previous two or three years. There was a heavy fall of rain on the Jhelum Valley Road which damaged the road and interrupted communication for several days. Some avalanche accidents were reported from the higher passes.

"The snowfall of the past winter was undoubtedly heavier than usual and continued to an unprecedentedly late period. Even in the last week of April snow fell about 1,500 feet above Srinagar, *viz.*, down to the height of about 6,500 feet.

"The winter was followed by a very wet spring, and the rainfall during April was much above the average.

"There was a very long winter in Kashmir.

"The Mooram Ghatee Pass is still closed, a thing unheard of before, after the first week in April. Snow fell as low as 7,000 feet on April 7th and the depth of snow still on Triund (12,000 feet) is about 5 feet."

(3) *Kailang.*—The Rev. F. Peter writes as follows:—

"On the 1st of April, snow lay on the surrounding hills even on the sunny side, down to the height of about 11 or 12,000 feet.

"Much snow and rain fell in April. Two duststorms came up during the month.

"The Rotang pass road to Kulu was not open for ordinary traffic at the end of April. The snowline was about 13,000 feet at that time.

"The spring was unusually late."

(4) *Ladakh.*—The Superintendent of the Leh observatory sends the following report of the snowfall in April:—

"Snow fell on the 6th to the 8th, 14th and 15th and 20th to the 22nd, but the falls were very light and melted away soon. There was no snow lying in Leh at the end of the month, the snowline having retreated to an elevation of 13,500 feet."

(5) *Chamba.*—The Deputy Conservator of Forests reports that the first half of April was unusually wet. Snow fell over the whole district on the 9th and 10th down to 6,500 feet.

(6) *Simla.*—The Deputy Conservator of Forests, Bashahr, writes that there were very frequent falls of snow during the month, *viz.*, on the 3rd to the 7th and the 9th to the 26th down to about 9,000 feet. The accumulation at the end of the month measured 10 feet in depth on the Rupin and Borenda passes, 5 feet on the Hattu pass and 4

feet on the Harang pass. Weather was very disturbed in April and much rain fell. Snow was received down to 11,000 feet on the 7th, 23rd and 24th, but melted away as quickly as it fell.

The Rev. F. Schreve writes that "an unusual amount of rain fell at Poo during April and the snowline descended to about 11,000 feet."

(7) *Kulu.*—Snow fell on eight days in April on the higher elevations down to about 10,000 feet. The snowfall during the month was heavier than in the corresponding period of 1899. The Rotang pass was not open for traffic at the end of the month.

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

(1) *Garhwal.*—The falls of snow were unusually frequent for the time of year.

(2) *Almora.*—The Deputy Commissioner reports that "the snowfall was greater during April than in the corresponding period of previous years."

IV.—ASSAM HIMALAYAS.

The Deputy Commissioner, Kamrup, reports that on the *hills north of Kamrup* snow showers occurred during the winter at intervals from November to January. The depth of snowfall in each storm ranged up to about one foot.

Snow is said to have descended to the Rasdang peak of the Ome range.

Snow lay to a depth of 3 to 4 inches on the passes leading into Thibet at the end of March.

The snowfall of the past winter was greater in amount than that of the previous year.

The Deputy Commissioner, Darrang, writes as follows regarding the *hills north of Darrang District*:—The Bhutia chiefs who came down to Mangaldai reported that the snowfall this year was moderate in their hills. The Charduar and Thepangia Bhutias and both the Khels of the Akas who came to Tezpur stated that the fall in their hills was normal.

The Assistant Political Officer, Sadiya, reports that "the snowfall during the past cold weather has been exceptionally heavy in the Mishmi Hills and their vicinity. The fall appears to have been general, for I have seen heavy snow to the north-west and south-east of Sadiya since I returned from the Mishmi Hills.

"The snowfall commenced very early and continued late, a very heavy fall having occurred in March."

Upper Burma.—The Deputy Commissioner, *Myitkyina*, writes:—"Our sources of information do not extend so far as the region of snows, but there are good reasons for believing that the fall has been unusually heavy and late this year. A very heavy fall of snow occurred in January in Lat. 25° 45′ N. and Long. 98° 15′ E. and throughout February and early March there was daily snow at altitudes of 7,000 feet and upwards. In December 1899 there was a heavy fall of snow at an altitude of 7,000 feet in Long. 97° 45′ E. and Lat. 23° 50′ N. in this district. This is probably as far south as snow is known in India."

The Deputy Commissioner, Bhamo, reports that on the 13th January in Lat. 25° 45′ N. and Long. 98° E. snow was still 2 feet deep in places at an elevation of 9,000 feet.

The Forest Ranger, Myitkyina, reports that the cold weather rains were unusually heavy this season in the hills to the north-east and the snowfall was also abnormal.

Summary of special Storm Reports.

In April the number of local storms increases very largely. The storms reported were of the ordinary, hot weather type, *viz.*, thunderstorms or hailstorms in Assam, Bengal, the North-Western Provinces, the Deccan and Madras, and duststorms in the hot, dry districts of the north-west, more especially the Punjab, Rajputana and Sind. The latter appear to have been generally of moderate intensity, but the hailstorms in the north-east were more frequent and more severe than usual. In the Kashmir valley snow fell on the 9th, a most unusual occurrence.

2nd April.—A thunderstorm passed over Patiala on the evening of 2nd followed by a shower of rain.

3rd.—A severe duststorm passed over Burdwan between 4 and 5 P.M.

A very severe duststorm passed over Delhi at 4-30 P.M. followed by rain and thunder. The storm advanced from north-west.

A severe thunderstorm occurred at Simla. It commenced from south-west at 5-10 P.M. and continued till 6 P.M. The lightning struck a tree and a man. The storm was severe and gave 1·30 inches of rain and fresh snow fell on the higher hills. Temperature fell to 40°.

6th.—A severe duststorm occurred at Salem at 4-27 P.M. The storm came on from north-

east and was followed by 0·07 inch of rain.

A thunderstorm with hail occurred at Srinagar between 3 P.M. and 8 P.M. Snow fell on the adjacent hills.

7th.—A severe nor'-wester passed over Burdwan. The rain which measured 1 inch lasted 40 minutes.

8th.—Thunderstorm at Srinagar between 7 P.M. and 11 P.M. with rain and strong winds.

At Hyderabad (Deccan) there was a severe thunderstorm from 4 to 4-45 P.M. Hail fell at intervals and the rain measured 1·80 inches.

A duststorm occurred at Bhuj at 4 P.M. The storm which was very severe with high winds lasted about 3 minutes and was followed by a sharp shower of rain.

A duststorm occurred at Lahore between 6-40 P.M. and 10 P.M. with strong south-east winds and overcast weather.

9th.—A moderate duststorm occurred at Jacobabad at 5 A.M. and lasted half an hour.

A thunderstorm occurred at Salem at 3 P.M. with rain and high winds.

A thunderstorm with hail and rain occurred at Sialkot between 9-23 A.M. and 1-37 P.M.

At Patiala a duststorm occurred between 2 and 3 P.M.

At Lahore a thunderstorm passed over between 10 A.M. and 2 P.M. with much dust and a high wind.

At Srinagar a storm with snow and rain occurred between noon and 9 P.M.

A violent thunderstorm occurred at Boalia at 8-10 P.M. and lasted 15 minutes.

10th.—A strong north-east gale and a slight shower of rain occurred at Saugor at 3 P.M.

A thunderstorm occurred at Salem between 1-50 P.M. and 2-30 P.M. Rain fell during the storm.

11th.—A severe nor'-wester passed over Jodhpur at 4-30 P.M. and lasted about half an hour. The storm came up from south and the wind was exceptionally strong. The sky cleared at about 5-4 P.M.

A duststorm was reported from Jaipur between 1-55 P.M. and 2-15 P.M. A few drops of rain fell.

13th.—At Lahore a duststorm prevailed from 8-50 P.M. to 11 P.M. with a few drops of rain.

A thunderstorm with strong winds occurred at Salem between 3-5 P.M. and 3-40 P.M. It was accompanied with sharp showers.

15th.—A duststorm occurred at Mainpuri between 4-55 P.M. and 5-50 P.M.

A duststorm occurred at Ajmer at 3-40 P.M. and lasted 18 minutes. Slight showers of rain fell.

A duststorm came on suddenly at Cawnpore at 10-25 P.M. The wind was very strong but there was no rain.

A duststorm occurred at Jaipur between noon and 2 P.M.

16th.—A heavy duststorm passed over Hoshangabad travelling from east to west at 5-20 P.M. It lasted 20 minutes.

A thunderstorm with rain passed over Jodhpur at 5 P.M. The wind was again very strong.

A duststorm occurred at Ajmer at 2-40 P.M. The wind was excessively strong but the rainfall only 0·15 inch.

17th.—A duststorm came up over Jodhpur from south-west at 5-20 P.M. Rain fell about 6 P.M. and the storm lasted a little over half an hour.

A duststorm was experienced at Udaipur at 6 P.M. lasting 1½ hours. Some rain was received and the wind blew with great force.

18th.—Severe hailstorm at 4 P.M. from north-west at Mymensingh. It lasted 15 minutes.

A severe hailstorm passed over Belgaum between 3-35 and 4-30 P.M. The stones were very large, in some cases weighing 3 tolas, and it is remarkable that there was no thunder or lightning. The wind velocity was 34 miles in 30 minutes.

19th.—A thunderstorm occurred at Alipore, Calcutta, between 3-15 P.M. and 4-30 P.M. The wind blew with a velocity of 50 miles per hour and the storm was very severe.

A severe hailstorm occurred at Mymensingh at 3 P.M. It came up from north-north-west, but only lasted 5 minutes.

20th.—A severe duststorm occurred at Jodhpur from 3-30 P.M. The winds were again very strong.

21st.—Thunderstorm at Srinagar from 2 P.M. to 6-30 P.M. with rain and a violent wind.

22nd.—A severe duststorm occurred at Burdwan at 9-20 P.M. to 9-38 P.M.

23rd.—A severe thunderstorm occurred at Burdwan at 5-5 P.M. lasting 20 minutes.

A duststorm of moderate intensity occurred at Allahabad from 2 P.M. to 6 P.M.

25th.—A thunderstorm occurred at Allahabad between 2 P.M. and 3 P.M. There was some rain.

A severe duststorm occurred at Boalia at 6-20 P.M. The storm came up from south-west and lasted 1 hour.

A sharp local storm occurred at Jubbulpore at 3-30 P.M. lasting 30 minutes.

28th.—A thunderstorm occurred at Salem at 8-30 P.M. The storm lasted till 9-7 P.M.

29th.—At Salem another thunderstorm occurred between 8 P.M. and 8-30 P.M. The rainfall amounted to 0·13 inch.

The following records of the occurrence of earthquakes have been received :—

March 2nd.—A sharp earthquake shock was felt at Mount Abu at 9-14 P.M. local time. Tiles shook; dogs barked. Then came a rumbling noise lasting 31 seconds.

April 26th.—An earthquake shock was felt at Mount Abu at 9-10 A.M. Madras time for 10 seconds, rumbling noise only.

30th.—At Kandakur in the Nellore district there was a slight shock of earthquake felt at about 3-45 P.M. with a noise like distant thunder. All the buildings shook a little. The shock passed from east to west and lasted for about 1 minute.

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

March 20th.—A severe hailstorm passed over the Muttra district. It lasted about half an hour and the stones were about five ounces in weight.

A serious hailstorm occurred over five parganas of the Bharatpur State. It commenced at 4 P.M. and lasted an hour. Many goats were killed and hailstones weighed up to 30 tolas. The fields of corn were laid flat as with a roller.

April 1st.—There was a severe hailstorm in part of the Cachar district. The wind was very strong and the stones of the diameter of a rupee.

A hailstorm occurred in the Kanara district. It was moderately severe.

2nd.—A hailstorm occurred at Karimgunj (Sylhet, Assam). The storm was slight and lasted about half an hour.

A hailstorm also occurred at Jal Dhub (Sylhet). It was severe and occasioned a good deal of damage.

A severe hailstorm was reported between 4-30 and 5 P.M. in parts of Shikarpur (Sind). Six oxen and 2 goats were killed and the ground was covered 1 foot deep with hail stones, which did not disappear till next day.

The Begari Canals district (Sind) were visited by the same storm, the stones were ½ inch to 1 inch in diameter. The Shikarpur Canal district was also visited by the storm, the size of the stones varied from peas to eggs.

4th.—A slight hailstorm was experienced at Karimgunj.

5th.—A severe hailstorm was reported from Jal Dhub.

A slight hailstorm was experienced in parts of North Lakhimpur (Assam). The stones were the size of pigeon's eggs.

9th.—At Karnal and Kaithal (South Punjab) there was a severe hailstorm at about 2-30 or 3 P.M. The storm lasted about half an hour. Some of the stones which fell at Karnal weighed 9 ounces and were 7 inches in circumference. The subdivisional officer at Kaithal reported that some hailstones weighed 1 chittak.

Hailstorms occurred in the Kamrup district of Assam. The storms were severe, but only lasted a few minutes.

A severe hailstorm visited the Bajoli Tahsil of the Kamrup district and lasted 3 minutes. The hailstones were 3½ inches in circumference.

12th.—A hailstorm occurred at Dharwar about 7 to 8 P.M.

A hailstorm occurred at Hulikatti (Belgaum) and lasted 30 minutes.

A hailstorm occurred at Gokak canal (Belgaum) and lasted 15 minutes.

13th.—A hailstorm occurred at Dharwar lasting three minutes.

A slight hailstorm occurred at Ratabari (Sylhet) and lasted 10 minutes.

14th.—Hailstorms occurred in different parts of Dharwar, but they were slight and only lasted a few minutes.

A hailstorm was reported from Jowai in the Assam Hills. The storm was slight.

A hailstorm also occurred in the Naga Hills.

It lasted about 20 minutes but was not severe.

A slight hailstorm occurred at Arwotuge (Dharwar) and lasted 5 minutes.

A hailstorm was reported from parts of the Kanara district. It lasted about 15 minutes and the hail stones were about ½ inch in diameter.

15th.—A hailstorm was reported from the Godag sub-division of Dharwar.

A severe hailstorm occurred in Cherrapoonjee. The storm lasted 3 minutes. The stones were as large as hen's eggs.

A slight hailstorm occurred in the Cachar district.

16th.—A slight hailstorm occurred in the Godag sub-division of Dharwar.

A slight hailstorm occurred in the Cachar district, but the stones were large.

A severe hailstorm was reported from the Darrang district. It lasted half an hour and the stones were the size of plums.

A severe hailstorm occurred in Chutia Tahsil, Assam, lasting half an hour. The stones were 4 inches in circumference.

16th.—A slight hailstorm occurred in Sibsagar, Assam.

A slight hailstorm but with very large stones occurred in Nowgong.

17th.—A slight hailstorm was reported from parts of Dharwar at 4 P.M., the stones were small.

A moderately severe hailstorm occurred in the Kanara district.

A slight hailstorm occurred in the Cachar district lasting 15 minutes.

A hailstorm with small stones and lasting only 10 minutes was reported from Tezpur.

A slight hailstorm occurred at Karimgunj (Sylhet) and lasted 10 minutes.

A slight hailstorm occurred in the Jorhat district, Assam.

A hailstorm occurred in the Cherrapoonjee district. The stones were about the size of a pigeon's egg.

18th.—A moderately severe hailstorm occurred in the Hubli sub-division of Dharwar.

A hailstorm was reported from Gauhati (Assam). It lasted about ten minutes.

A slight hailstorm occurred in parts of the Cachar district (Assam).

A slight hailstorm was reported from Karimgunj (Sylhet). It lasted 15 minutes.

A hailstorm occurred at Hubli (Dharwar) and lasted 7 minutes.

19th.—A moderate hailstorm occurred at Cherrapoonjee. It lasted only 3 minutes.

20th.—There was a hailstorm in the Godag sub-division of the Dharwar district. The storm lasted about 10 minutes with stones ¼ to ¾ inch in size.

A slight hailstorm was experienced at Dambal (Godag Taluka) at about 4 P.M. and lasted 6 minutes.

A hailstorm occurred at Ranibenur (Dharwar) and lasted 6 minutes.

22nd.—A slight hailstorm occurred in the Cachar district and lasted only 5 minutes.

23rd.—A hailstorm occurred at Pottangi in the Vizagapatam district.

A slight hailstorm occurred in parts of the Cachar district, Assam.

A slight hailstorm was reported from the Sibsagar district of Assam.

A very severe tornado passed through the southern portions of the Goalpara district of Assam on the afternoon of the 18th and a second and slighter storm on the afternoon of the 19th. The following is an account of the storms as supplied by Captain Macleod, I. M. S., the Civil Surgeon :—

I visited Bhimapara at 4-15 P.M. on the 27th April.

The villagers here state that the cyclone came from the west about 4 P.M. on 18th instant, and that 7 houses were blown down, 9 people injured and 4 cows killed.

Bhimapara is situated about 300 yards from the left bank of the Ginjiram and ¾ mile west of the south trunk road.

I noticed on coming to the village from the south that the line of scattered *débris*, bamboos, thatch trees, etc., ran almost due east and west and was about 700 yards wide.

About one mile east on the other side of the south trunk road runs a low line of hills, the grass and trees on which were scorched for about ¼ mile.

All the villagers both here and Phulerchar state that this took place during the cyclone.

There were several uprooted trees here, one 2 feet in diameter by 25 feet long had been carried some 30 yards. Whilst another of about the same size was said to have been carried some 600 yards crossing the Ginjiram which is here about 100 yards wide.

The site from which the trees had been carried was afterwards pointed out to me.

No one seems to have been severely injured here though four cows were killed.

After crossing the line of *débris* the Ginjiram was waded on an elephant and I visited Majipara situated about 100 yards west of the right bank of the Ginjiram. Here only two houses had been levelled, the cyclone's left skirting the edge.

Majipara is a Mussalman hamlet of Phulerchar.

I next visited Phulerchar. This village consists of some 200 houses running north and south for about a mile. It is situated on the right bank of the Ginjiram and its distance from this river varies from 200 yards to ½ a mile. The country to the west is quite flat.

The villagers here state that the cyclone came from the west, that 25 houses with out-houses were blown down or whirled away.

18 persons killed outright, 2 deaths since from injury.

25 injured.

11 cows and one goat killed.

They also state that it was about 4 P.M., lasted from 15 minutes to an hour and that it was pitch black.

Here was seen the full force of cyclone; every thing in its course had gone; trees, houses, etc. were either levelled or carried away long distance.

Of the injured I saw:—

1 Fracture of skull compound
1 „ ribs
1 „ nose
1 „ arm
1 Elbow joint torn open.

Six other injuries to head and extremeties, besides several who were bruised and scratched.

Injuries were for the most part lacerated or contused wounds, though some were clean cuts, most of which seemed to have been caused by split bamboos.

The villagers pointed out near here the site of the tree said to have been carried to Bhimapara a distance of 600 yards.

Two sections of simel were pointed out, pierced in a dozen places to a depth of from 1″·2″ by split bamboos; one of these (measured 3′ by 5′ smallest diameters), had been carried rolled, I imagine exactly 90 yards, the other of about the same size a distance of about 110 yards.

One large banyan tree had been lifted out *en masse* roots and all and carried 10 yards. Measurements girth 19 feet taken three feet from base, and having a uniform girth of 19 feet for 13 feet, actual length of tree 30 feet.

In the same line as these trees had travelled no less than twelve corpses had been carried varying in distance from 20 to 150 yards. One dismembered body is said to have been carried across the Ginjiram, a distance of over ¼ mile.

The distance between the points where houses were levelled at this village as measured by the tape was 832 yards, though the full force of the storm was felt for only 466 yards.

I took bearings on the left bank of the Ginjiram with a compass between Phulerchar about ½ mile distant and the low lines of scorched Garo Hills, already referred to, one mile distant.

Assuming the compass to be correct the cyclone here travelled west to east. I should have previously noted that at Phulerchar the cyclone passed through the centre of the lines of houses one mile long which, together with the detached hamlets of Majipara and Mussalmanpara make up this village.

Kokradanga.—I next visited Kokradanga about 1½ miles distant slightly to the north of west. Here compass bearings were taken in the centre line of the cyclone between Boroalga 1½ miles distant and Phulerchar also distant 1½ miles. Between these points the cyclone had travelled from 22½° north of west to 22½° south of east. Kokradanga is a Musulman village of about 60 houses, 30 of which were levelled or carried away.

2 persons killed,
12 injured,
10 cows killed.

Villagers' Statement.—Villagers state cyclone came from the west 4 P.M. 18th instant, lasted about one hour, that whilst it lasted it was quite dark. No lightning, no rain, but that a few large hailstones fell.

Boroalga.—I next visited Boroalga 1½ miles distant; bearing taken here with the compass in the centre line of the cyclone between a point distant about a mile to the west and Kokradanga, showed that the direction was west to east.

Boroalga consists of two lines of houses, running north and south, each about 400 yards long and distant from each other about ¼ mile. It is generally spoken of as two villages; every single house, 37 in number, had been levelled or carried away and skeleton of cattle and trees had been carried for nearly ¼ mile.

Villagers' Statement.—The villagers stated that 37 houses had been destroyed 10 people killed, 37 injured and 6 cows killed.

They say the cyclone came from the west at 4 P.M. on 18th instant. There was no rain, no lightning, it was pitch dark whilst the storm lasted, the duration was half an hour and small hailstones fell.

General Direction.—At Boroalga and again at Kokradanga, afterwards travelling its easterly course till again deflected slightly south by the low line of Garo Hills. Its centre crossed the south trunk road, 483 yards, north of the 22nd milestone (*i.e.* 122 miles from Fakirganj). Its extremes where it crossed the road were 799 yards apart and the centre of minimum force 366 yards wide. Very little information could be obtained of damage done by the cyclone after it entered the Garo Hills.

The course over which the cyclone travelled in this district was about 5 miles by ½ mile.

The cyclone of the 19th instant is reported by the South Salmara Police, to have travelled from the west and entered the Garo Hills at Bharabhita after striking Kopat.

Its length in this district is estimated at 10 miles by ½ wide. Little damage seems to have been done before it entered the Garo Hills at Bharabhita where it is rumoured that ten people were killed.

The villages through which it passed were:—

Maderpara,
Kopati,
Khalishmari.

Four people were injured in Maderpara and one in Kopati.

It is said to have occurred at 4 P.M. on the 19th instant and to have lasted 5 to 10 minutes.

Storms were prevalent all over the district on 18th and 19th April last, but it was only in the Thana circles of Fulbari and Garobadha that any loss of life occurred. These two localities appear to have been visited by two separate hurricanes, on the 18th at Garobadha and on the 19th at Fulbari, the direction of the storm at both places being from west to east.

At Garobadha the hurricane lasted for about 15 minutes, beginning about 4-30 P.M. The village of Shondana, which lay in the path of the storm, was entirely demolished. Six of the villagers were killed, and 9 others received injuries. After the storm no trace of the village was left. The wind was strong enough to lift persons off their feet and dash them against trees and other obstacles. The storm was accompanied by thunder and hail but no lightning was observed. Six head of cattle and one goat were killed during the storm, but no damage was done to crops.

At Fulbari the hurricane took place on the 19th, about 2 P.M., and lasted about 5 minutes. At Silkota village much damage was done. Eight prsons were killed and one man injured, some of the corpses being found as far as hundred yards from the houses. Many of the houses were blown down or unroofed. Some of the deceased were killed by the falling houses, and others, when seeking a refuge were blown by the wind against trees, etc. twenty-four head of cattle were killed.

Crops were not damaged except millet, to which the damage was slight. The storm was not accompanied by either thunder, hail or rain, but after the storm had passed, hail fell.

At Tangbalgiri, in the hills, one man and one woman were injured. A certain amount of damage was done to houses throughout the district, but nothing serious, and there was no further loss of life or injuries beyond those mentioned above. The crops too escaped without any damage.

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

Arabian Sea.—The air circulation over this area was of the ordinary April type, though somewhat steadier and stronger than usual. Winds were strongest on the 2nd and 30th (force 3·1) and feeblest on the 18th and 19th when they averaged only 2·0 in strength. The mean air movement of the month for the whole of the Arabian Sea was 2·5 as compared with 2·7, its normal April strength. Weather was feebly unsettled in the south-east from the 8th to 11th, 18th to the 20th, and 25th to the 30th and fine over the remainder of the sea throughout the month.

Bay of Bengal.—Along the coasts of the Bay winds were, as is ordinarily the case during the hot weather period, controlled mainly by the very varying pressure conditions over the neighbouring land area and were hence somewhat unsteady. Abnormal northerly winds were experienced along the Coromandel and Ganjam coasts on the 28th and 29th and westerly to north-westerly winds at the head of the Bay on the 11th and 12th, but during the remainder of the month ordinary winds of indraught to the interior obtained generally in the immediate neighbourhood of the coast. Out in the open sea the winds were even more unsteady than is usual in the month of April, more especially in the south, where variable winds and calms alternated with northerly winds throughout the month except for a short period from the 23rd to the 28th when moderate to strong south-west winds were experienced. The air movement was slightly above its normal strength on the 4th, 20th, 22nd to the 24th, and the 27th and normal or below it during the remainder of the month. On the mean of the month the air movement over the Bay was only 0·1 below its normal intensity, *viz.*, 2·7.

Equatorial Belt.—The information available for this region is even more scanty than usual. It, however, tends to show that the south-east trades were lighter than usual and did not extend so far north as usual in April. This is borne out by the data of the Seychelles and Zanzibar, where the winds contained an abnormal westerly component.

Temperature of the Air.

The month of April 1900 was like the same month last year, characterised by more disturbed weather than usual over Northern India. There were several showers of snow on the Himalayas and frequent thunderstorms on the plains, more especially in the Punjab, Rajputana, the Deccan and North-East India. In consequence the temperature was lower than usual in the extreme north-west and north-east of India and in parts of the Peninsula.

The mean maximum or day temperature of the month was in defect over the greater part of North-West India, Central India, the Gangetic Plain and West Bengal as well as in Upper Assam, Upper Burma and on the both coasts of the Peninsula. The variations were small in West Bengal, Central India, and Upper Burma, while they were considerable to large in North-West India and slight to moderate on the Peninsular coasts. The variations from the normal exceeded 4° in amount at the following stations in North-West India:—

Station.	Mean maximum temperature.		
	Actual, April 1900.	Normal, April	Variation of actual from normal, April 1900.
	°	°	°
Montgomery	91·8	100·3	−8·5
Delhi	93·6	100·4	−6·8
Sirsa	93·9	100·5	−6·6
Ludhiana	91·3	97·6	−6·3
Khushab	88·8	95·1	−6·3
Rawalpindi	81·7	88·0	−6·3
Peshawar	80·6	86·6	−6·0
Umballa	92·1	97·8	−5·7
Dera Ismail Khan	87·7	93·2	−5·5
Agra	97·6	102·8	−5·2
Sialkot	89·9	94·9	−5·0
Mooltan	92·9	97·8	−4·9
Mainpuri	97·8	102·5	−4·7
Roorkee	93·4	98·1	−4·7
Lahore	91·9	96·6	−4·7
Bareilly	94·9	99·5	−4·6

They were more than 2° at the following stations in the Peninsula :—

Station.	Mean maximum temperature. Actual, April 1900.	Normal, April	Variation of actual from normal, April 1900.
	°	°	°
Mormugao	87·6	90·4	−2·8
Goa	87·3	89·4	−2·1

Over the remainder of India the mean maximum temperature of the month was in excess. The excess was moderate to considerable and more than 2° in amount in three areas, the first including Lower Sind, the second parts of Khandesh and of the Bombay Deccan, and the third the greater part of Burma. The following gives comparative data for these three areas :—

Area.	Station.	Mean maximum temperature. Actual, April 1900.	Normal, April	Variation of actual from normal, April 1900.
		°	°	°
Lower Sind	Kurrachee	94·3	91·3	+3·0
Khandesh and Bombay Deccan.	Ahmednagar	102·0	99·1	+2·9
	Malegaon	105·6	102·8	+2·8
	Bijapur	102·5	100·0	+2·5
	Poona	103·3	101·1	+2·2
Burma	Toungoo	105·3	100·1	+5·2
	Minbu	106·2	102·7	+3·5
	Yamethin	104·6	101·1	+3·5
	Thayetmyo	106·3	103·0	+3·3
	Mandalay	104·5	101·5	+3·0
	Rangoon	100·6	98·0	+2·6
	Moulmein	96·8	94·3	+2·5
	Akyab	94·0	91·9	+2·1

The highest maximum temperatures of the month were generally registered in Burma during the last ten days of the month, in Bengal between the 3rd and the 5th, in Northern and North-West India between the 20th and 22nd or on the 30th, in Bombay between the 20th and 23rd, and in South India about the middle of the month. The following gives the highest maximum temperatures (exceeding 110°) registered in India during the month :—

Province.	Station.	Highest maximum temperature recorded in April 1900.	Date on which recorded.
		°	
Burma	Thayetmyo	110·8	21st
	Minbu	110·6	27th
Chota Nagpur	Daltonganj	112·6	22nd
	Chaibassa	110·2	22nd
Bihar	Dehri	110·4	22nd
North-Western Provinces and Oudh.	Jhansi	112·4	22nd
	Allahabad	111·1	21st
	Lucknow	110·3	21st
Sind	Jacobabad	116·1	30th
	Hyderabad	115·2	20th
Rajputana	Pachpadra	114·7	20th
	Deesa	113·1	20th
	Kotah	111·6	21st
	Jodhpur	110·7	20th
	Jaipur	110·2	21st
Gujarat	Bhavnagar Para	112·7	20th
	Ahmedabad	112·3	20th
	Bhuj	111·8	20th
	Rajkot	110·9	19th and 20th.
Central India	Sutna	110·6	22nd
Khandesh	Malegaon	110·3	20th and 21st.
Berar	Akola	113·5	20th
	Amraoti	112·5	20th
Central Provinces	Chanda	113·7	23rd
	Nagpur	113·6	21st
	Hoshagabad	113·0	22nd
	Raipur	112·5	21st
	Khandwa	112·2	21st
	Sambalpur	112·1	23rd
Madras Deccan	Cuddapah	110·3	18th

The maximum temperatures at the hill stations were generally lower than usual in Northern, and higher than

usual in Central and Southern India. The following gives comparative data in illustration :—

Province.	Station.	Mean Maximum Temperature. Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		°	°	°
Northern India, Hill Station.	Murree	59·8	68·4	—8·6
	Cherat	67·7	75·5	—7·8
	Srinagar	61·3	68·8	—7·5
	Leh	49·9	57·1	—7·2
	Chakrata	64·1	70·6	—6·5
	Simla	61·4	66·8	—5·4
	Ranikhet	69·5	74·4	—4·9
Central India, Hill Stations.	Pachmarhi	93·2	92·3	+0·9
Southern India, Hill Station.	Wellington	78·6	75·9	+2·7

The absolute maximum of the month was over 90° at the stations for which comparative data are given below :—

Station.	Highest maximum temperature recorded in April 1900.	Date on which recorded.
	°	
Chaman	94·2	30th
Mount Abu	92·2	20th and 21st.
Pachmarhi	99·7	21st
Shahrig	97·0	30th
Kalat	95·7	16th

The variations of the mean minimum temperature of the month were to a certain extent similar to those of the maximum temperature. There was a deficiency in the extreme north-west of India, at a few places in the north-east and at a few stations on the coasts of the Peninsula and an excess over Burma and the remainder of India. There was, however, a large area of considerable excess over the central parts of the country and the head of the Peninsula. The only important deficiency was in the north-west where it amounted to 2° or more at the stations for which comparative data are given below :—

Province.	Station.	Mean Minimum Temperature. Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		°	°	°
Punjab	Rawalpindi	54·5	59·6	—5·1
	Khushab	64·0	68·1	—4·1
	Peshawar	57·6	60·7	—3·1
	Montgomery	65·3	68·2	—2·9
	Dera Ismail Khan	62·3	64·9	—2·6
North-Western Provinces.	Dehra Dun	60·4	64·3	—3·9

The mean minimum temperature of the month was in marked excess in two areas. The first included parts of Lower Sind, of Gujarat and of Rajputana as well as the whole of Central India, the Central Provinces, Bihar and the head of the Peninsula. The following gives comparative data for this large area :—

Province or Division.	Station.	Mean Minimum Temperature. Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		°	°	°
Lower Sind	Kurrachee	75·4	73·1	+2·3
Gujarat	Bhuj	73·8	71·0	+2·8
Rajputana	Deesa	75·7	70·9	+4·8
	Ajmer	73·7	70·3	+3·4
	Jaipur	72·7	69·3	+3·4
Central India	Sutna	74·0	71·0	+3·0
	Indore	71·6	69·1	+2·5
	Neemuch	72·9	70·7	+2·2
Central Provinces.	Chanda	82·0	76·3	+5·7
	Sambalpur	79·7	75·7	+4·0

Province or Division.	Station.	Mean minimum temperature. Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		°	°	°
Central Provinces.	Khandwa	77·5	74·3	+3·2
	Raipur	79·9	76·8	+3·1
	Hoshangabad	76·3	73·2	+3·1
	Saugor	75·4	72·4	+3·0
	Nagpur	78·7	75·9	+2·8
	Seoni	74·3	71·7	+2·6
	Jubbulpore	73·1	70·6	+2·5
Bihar	Gaya	76·8	74·4	+2·4
	Patna	75·4	73·3	+2·1
Berar	Amraoti	78·8	75·5	+3·3
	Akola	77·2	74·0	+3·2
Madras Deccan	Hyderabad (Deccan)	78·6	75·1	+3·5
	Secunderabad	78·0	75·1	+2·9

The second area included Tenasserim and Lower and Central Burma. The following gives comparative data for this area:—

Province.	Station.	Mean minimum temperature. Actual, April 1900	Normal, April.	Variation of actual from normal, April 1900.
		°	°	°
Tenasserim	Moulmein	79·0	75·8	+3·2
	Mergui	76·2	73·1	+3·1
Lower Burma	Bassein	78·5	75·1	+3·4
	Diamond Island	81·3	78·1	+3·2
	Rangoon	78·1	75·9	+2·2
Central Burma	Toungoo	79·0	73·3	+5·7
	Minbu	80·3	75·6	+4·7
	Thayet ryo	80·0	75·7	+4·3

The lowest temperatures of the month were recorded during the first half of the month in most parts of the country, and as early as the 4th in the Punjab and Rajputana. The following were the lowest temperatures registered in the north-west of the Punjab, which though low, were not with one or two exceptions so low as some previously recorded. The following gives comparative data:—

Station.	Lowest minimum temperature recorded in April 1900.	Date on which recorded.	Lowest minimum temperature recorded in April previous to 1900.	Year in which recorded.
	°		°	
Murree	28·5	10th	28·7	1886
Cherat	40·0	9th and 10th	45·2	1894 & 1897
Rawalpindi	42·5	10th	42·0	1876
Peshawar	49·0	7th and 10th	42·2	1886
Khushab	50·8	9th	52·0	1896
Dera Ismail Khan	52·6	11th	43·8	1886
Montgomery	53·0	4th	54·3	1893

On the North-West Himalayas and in Baluchistan the night temperature on the mean of the month was slightly to largely below the normal, but in the Eastern Himalayas as well as at the central and southern hill stations the mean minimum temperature was normal or slightly above the normal.

The mean temperature of the month was below the normal over part of North-West India and of the Gangetic Plain, over the Assam Valley, over South-West Bengal and on parts of the coasts of the Peninsula. In all but the first named area the deficiency was small, but in North-West India it amounted to 2° or more at the following stations:—

Province.	Station.	Mean daily temperature. Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		°	°	°
North-Western India.	Rawalpindi	68·1	73·8	—5·7
	Montgomery	78·6	84·3	—5·7
	Khushab	76·4	81·6	—5·2
	Peshawar	69·1	73·7	—4·6
	Dera Ismail Khan	75·0	79·1	—4·1
	Dehra Dun	73·4	77·3	—3·9
	Delhi	83·1	86·9	—3·8
	Sirsa	80·7	84·4	—3·7
	Umballa	78·8	82·2	—3·4
	Roorkee	79·0	82·4	—3·4
	Ludhiana	79·0	82·2	—3·2
	Sialkot	77·3	80·5	—3·2
	Lahore	78·2	80·7	—2·5
	Mainpuri	84·0	86·5	—2·5
	Agra	85·8	88·2	—2·4
	Mooltan	80·4	82·7	—2·3
	Meerut	81·0	83·2	—2·2

Over the remainder of India the mean temperature was in excess. This excess was greatest along a broad band running east and west along Latitudes 16° to 24° North. Within this broad band the following variations exceeding +2° were recorded :—

Province.	Station.	Mean daily temperature		
		Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		°	°	°
Burma	Toungoo	92·2	86·7	+5·5
	Minbu	93·3	89·2	+4·1
	Thayetmyo	93·2	89·4	+3·8
	Yamethin	91·5	87·9	+3·6
	Moulmein	87·9	85·0	+2·9
	Bassein	88·0	85·5	+2·5
	Rangoon	89·4	87·0	+2·4
	Mandalay	91·6	89·4	+2·2
Bengal	Chittagong	83·2	81·1	+2·1
Central Provinces.	Chanda	95·2	91·7	+3·5
	Khandwa	91·5	89·3	+2·2
	Nagpur	92·9	90·8	+2·1
Berar	Akola	92·5	89·9	+2·6
	Amraoti	92·7	90·4	+2·3
Rajputana	Deesa	89·6	86·9	+2·7

The mean temperature of the month was in considerable to large defect over the North-West Himalayas and in slight to considerable defect in Baluchistan.

The following gives data in illustration :—

Province.	Station.	Mean daily temperature.		
		Actual, April 1900.	Normal, April	Variation of actual from normal. April 1900.
		°	°	°
North-Western Himalayas.	Murree	53·0	60·3	−7·3
	Cherat	59·9	66·9	−7·0
	Chakrata	55·5	61·3	−5·8
	Srinagar	52·1	57·2	−5·1
	Leh	39·0	44·0	−5·0
	Simla	54·7	59·7	−5·0
	Ranikhet	61·6	65·8	−4·2
Baluchistan	Chaman	65·9	69·5	−3·6
	Quetta	58·6	60·1	−1·5

The following gives a summary of the chief features of the mean temperature conditions of the month in India.

1st.—Both the maximum and minimum and hence also the mean temperature of the month were below the normal over the greater part of North-West India and of the Gangetic Plain and in the Assam Valley. The deficiency was most marked in the Punjab where the day temperatures were very low.

2nd.—The maximum and minimum and hence also the mean temperature of the month were slightly below the normal in parts of the west and east coasts of the Peninsula. The deficiency was generally small, but somewhat more strongly marked in the day than in the night temperature.

3rd.—The day temperature was below, the night temperature above, and the mean temperature above, the normal over Rajputana and Central India.

4th.—Both the day and night temperatures and consequently the mean temperature were above the normal over Burma, the excess being most marked in Central Burma.

5th.—Over the remainder of India the variations were small.

6th.—Both the day and night temperatures and consequently also the mean temperature, were considerably to largely below the normal over the North-West Himalayas.

The following table gives comparative data of the mean temperature conditions of the month in 55 meteorological divisions of India :—

Province.	Division.	Actual temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	94·7	77·7	86·2	17·0	23·1	+1·6	+3·2	−1·6
	Lower Burma (Deltaic)	95·5	79·3	87·4	16·2	22·2	+1·3	+2·9	−1·6
	Central do.	105·8	79·5	92·7	26·3	35·4	+4·3	+5·0	−0·7
	Upper do.	100·7	74·6	87·7	26·0	37·0	+2·5	+2·9	−0·4

Province.	Division.	Actual temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bengal and Assam	Eastern Bengal	91·9	74·3	83·1	17·6	30·1	+0·6	+1·2	—0.6
	Assam (Surma)	87·8	69·1	78·4	18·7	30·1	+0·2	+0·2	0
	Do. (Brahmaputra)	84·0	68·4	76·3	15·6	29·9	—1·4	—0·1	—1·3
	Deltaic Bengal	96·3	76·4	86·4	19·9	34·1	+0·6	+0·6	0
	Central do.	99·3	74·4	86·9	24·9	39·2	—0·1	+0·1	—0·2
	North do.	93·4	69·1	81·3	24·4	38·4	+3·2	+0·1	+3·1
	Bengal Hills	59·4	40·8	50·1	18·6	32·4	+2·7	+0·8	+1·9
	Orissa	93·2	78·4	85·8	14·8	26·5	—0·9	+0·4	—1·3
	Chota Nagpur	101·3	74·0	87·7	27·2	41·0	+0·1	+0·8	—0·7
	Bihar (South)	101·3	75·9	88·6	25·4	36·5	—1·2	+2·3	—3·5
	Do. (North)	98.0	71·3	84·7	26·8	38·1	+0·9	+1·0	—0·1
North-Western Provinces and Oudh.	North-Western Provinces (East)	101·8	72·8	87·3	29·0	43·0	—2·0	+0·7	—2·7
	Oudh (South)	101·1	71·1	86·1	30·0	46·5	—1·2	+0·1	—1·3
	Do. (North)	98·0	69·0	83·5	29·0	44·3	—2·1	—1·1	—1·0
	North-Western Provinces (Central)	99·6	73·4	86·5	26·2	47·0	—3·1	+0·6	—3·7
	Do. do. (West)	96·1	70·7	83·4	25·5	44·5	—4·5	—0·1	—4·4
	Do. do. (Submontane, East)	98·9	72·8	85·9	26·1	36·9	—1·9	+0·4	—2·3
	Do. do. (Submontane, West)	91·6	64·9	78·3	26.6	45·2	—4·4	—1·6	—2·8
	Do. do. (Hills)	66·2	49·5	57·9	16·7	38·2	—5·7	—4·3	—1·4
Punjab	Punjab (South-East)	93·6	72·5	83·1	21·1	42·1	—6·8	—0·8	—6·0
	Do. (South)	92·9	67·4	80·2	25·5	46·4	—6·6	—0·7	—5·9
	Do. (Central)	91·9	64·5	78·2	27·4	48·6	—4·7	—0·2	—4·5
	Do. (Submontane)	91·1	65·6	78·4	25·5	45·4	—5·7	—0·8	—4·9
	Do. (Hills)	60·7	41·9	51·3	18·7	43·2	—7·3	—4·4	—2·9
	Do. (North)	81·2	56·0	68·6	25·1	52·8	—6·2	—4·1	—2·1
	Do. (West)	90·4	64·9	77·6	25·5	51·6	—6.3	—2·3	—4·0
Bombay and Malabar Coast Districts (Madras).	Malabar	91·0	79·3	85·2	11·7	19·3	+0·5	+0·9	—0·4
	Madras (South Central)	99·6	76·2	87·9	23·4	32·0	—0·1	+1·6	—1.7
	Coorg	84·1	65·3	74·7	18·8	29·8	—0·4	+1·2	—1·6
	Mysore	95·3	70·9	83·1	24·5	33·6	+1·3	+1·5	—0·2
	Konkan	88·1	77·9	83·0	10·2	17·2	—1·5	—0·3	—1·2
	Bombay Deccan	102·0	72·4	87·3	29·6	39·2	+1·3	+0·7	+0·6
	Hyderabad (North)	102·8	77·5	90·2	25·3	34·7	...	...	...
	Khandesh	103·8	71·0	87·5	32·8	45·5	+2·9	+0·5	+2·4
Central Provinces and Berar.	Berar	107·2	78·0	92·6	29·2	45·2	+1·7	+3·3	—1·6
	Central Provinces (West)	106·1	77·5	91·8	28·6	43·5	+1·1	+3·0	—1·9
	Do. (Central)	103·3	76·2	89·6	27·1	42·0	+0·3	+3·5	—3·2
	Do. (East)	104·5	79·8	92·2	24·7	39·9	—0·5	+3·1	—3·6
Bombay (North)	Gujarat	101·5	76·3	88·9	25·2	40·4	—1·1	+1·5	—2·6
	Kathiawar & Cutch	97·7	73·2	85·4	24·6	41·0	+0·8	+2·3	—1·5
	Sind	99·7	73·1	80·4	26·6	48·5	+1·3	+1·8	—0·5
	Baluchistan Hills	75·2	47·4	61·3	27·8	58·1	—3·2	—1·8	—1·4
Rajputana and Central India.	Central India (East)	100·5	72·8	86·6	27·7	45·3	—1·1	+2·3	—3·4
	Rajputana (East), Central India (West)	99·0	74·2	86·6	24·8	45·8	—1·3	+3·9	—5·2
	Do. (West)	100·5	74·4	87·5	25·0	46·7	—2·5	+0·4	—2·9
Madras	East Coast (North)	91·5	78·2	84·9	13·3	21·1	+0·6	—0·1	+0·7
	Hyderabad (South)	103·4	79·0	91·2	24·4	38·8	+0·4	+2·7	—2.3
	Madras (Central)	104·8	80·0	92·4	24·9	40·9	+0·3	+1·3	—1·0
	East Coast (Central)	96·5	78·3	97·4	18·2	27·9	—1·0	+0·9	—2·5
	Do. (South)	94·4	78·3	86·4	16·1	26·1	—0.5	+0·7	—1·2
	Madras (South)	97·1	77·3	87·2	19·8	28·1	+0·6	+1·0	—0·4

The temperature conditions of the month of April, may be divided into three well-marked periods. During the first the mean temperature was low over Northern India and high over Burma and the interior of the Peninsula; during the second the heat was excessive except along the line of the hills and in North-East India, and during the third the heat was less than the average except in the north-east.

At the commencement of the month the temperature was falling in Baluchistan and Upper Sind and was lower than usual along the West Coast and in the extreme north-east of India. Elsewhere the heat was more or less excessive. The following gives variation data of the temperature of the 24 hours preceding 8 A.M. of the 1st:—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st April 1900.	Mean minimum temperature, 1st April 1900.	Mean daily temperature, 1st April 1900.
	°	°	°
Burma	+0·3	+1·9	+1·1
Assam	−5·8	+0·6	−2·6
Bengal	+2·0	+2·8	+2·4
Orissa	+0·1	+1·8	+1·0
Bihar	+0·3	+2·0	+1·2
Chota Nagpur	+4·5	+5·6	+5·1
North-Western Provinces and Oudh	+3·8	+2·7	+3·3
Punjab	+2·8	+2·7	+2·8
Sind	+7·1	−1·5	+2·8
Rajputana	+2·6	+7·0	+4·8
Gujarat	−1·7	+1·6	−0·1
Central India	+2·8	+4·7	+3·8
Central Provinces	+1·2	+5·6	+3·4
Berar	+2·8	+3·8	+3·3
West Coast	−0·6	+1·2	+0·3
Bombay Deccan	+1·6	+0·4	+1·0
Mysore	+2·0	−0·1	+1·0
Madras Coast	+1·5	+1·2	+1·4
Madras Deccan	+0·5	+5·2	+2·9
South India	+2·3	+2·7	+2·5

The fall of temperature which had commenced in Baluchistan and Sind extended quickly over the Punjab and thence eastward over the Gangetic Plain. The following gives comparative data for Baluchistan, the Punjab, Rajputana and the North-Western Provinces from the 2nd to the 7th and illustrates the extension of this cold wave eastward:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	2nd April.	3rd April.	4th April.	5th April.	6th April.	7th April.
	°	°	°	°	°	°
Baluchistan	−1·1	−7·9	−8·1	+3·7	−1·1	−9·4
Punjab	+1·3	−2·6	−9·7	−5·5	−4·2	−6·2
Rajputana	+2·9	0	−1·7	−1·9	−0·5	+1·5
North-Westen Provinces and Oudh.	+4·3	+4·5	+1·5	−1·8	−1·7	−0·9

On the 8th there occurred a burst of rain over Bengal and Assam, which reduced temperature very markedly over the former province. As a result the area of diminished temperature, which up to that date had been confined to Upper India, suddenly extended so as to include Bengal and on the following day, the 9th, the heat was below the normal in all the provinces of Northern India. The following gives comparative data in illustration:—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 9th April.	Mean minimum temperature, 9th April.	Mean daily temperature, 9th April.
	°	°	°
Bengal	− 2·0	−1·2	− 1·6
Orissa	− 5·4	−2·7	− 4·1
Bihar	− 3·1	+2·1	− 0·5
Chota Nagpur	0	−2·6	− 1·3
North-Western Provinces and Oudh	−16·7	−4·0	−10·4
Punjab	−10·6	−4·2	− 7·4
Sind	− 2·3	−1·4	− 1·9
Rajputana	−14·0	−3·3	− 8·7
Gujarat	− 3·4	+1·7	− 0·9
Central India	− 6·1	−1·0	− 3·6

During this period, the 1st to the 9th, the heat was

steadily excessive over Burma and the greater part of the Peninsula. This is shown by the following:—

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

On the 10th there occurred a fall of temperature over the interior of the Peninsula and the mean temperature was below the normal practically in all parts of the country except Burma, Assam and the south of the Peninsula. The following gives variation data of the temperature of the 10th representing the general conditions of the first temperature period:—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 10th April.	Mean minimum temperature, 10th April.	Mean daily temperature, 10th April.
	°	°	°
Burma	+ 2·0	+4·0	+ 3·0
Assam	+ 1·6	—0·1	+ 0·8
Bengal	— 2·3	—4·6	— 3·5
Orissa	— 3·5	+1·6	— 1·0
Bihar	— 2·3	+0·5	— 0·9
Chota Nagpur	— 0·1	—0·6	— 0·4
North-Western Provinces and Oudh .	—15·2	—4·0	— 9·6
Punjab	—19·9	—7·6	—13·8
Sind	+ 0·8	—3·0	— 1·1
Rajputana	— 9·7	+1·2	— 4·3
Gujarat	— 5·3	+2·0	— 1·7
Central India	— 8·3	+0·2	— 4·1
Central Provinces	— 2·5	+2·3	— 0·1
Berar	— 1·5	+0·5	— 0·5
West Coast	— 1·2	—0·8	— 1·0
Bombay Deccan	+ 1·7	—3·1	— 0·7
Mysore	+ 3·1	—0·5	+ 1·3
Madras Coast	+ 0·6	+0·8	+ 0·7
Madras Deccan	— 2·0	—5·1	— 3·6
South India	+ 2·5	+2·0	+ 2·3

The above conditions lasted with some modifications during the 11th, 12th and 13th, but on the 13th an important change appeared over India. On the 11th the mean temperature was 14° below the normal at Chaman and 5½° below at Quetta. On the following day, the 12th, a rapid rise of temperature commenced and on the 13th this rise extended to North-West India and the second temperature period commenced on this date. The following table shows the temperature changes in each 24 hours between 8 A.M. on the 10th and 8 A.M. of the 13th at Chaman, Quetta and Jacobabad:—

Station.	Change in mean temperature of 24 hours preceding 8 A.M. of			
	10th April.	11th April.	12th April.	13th April.
	°	°	°	°
Chaman	+3·0	+5·0	+11·5	+1·0
Quetta	—4·5	+5·8	+ 8·0	+0·3
Jacobabad	—1·0	—1·5	+ 4·5	+4·8

This rise of temperature does not appear to have advanced from the westward, but appears to have originated about the Western Frontier of India and thence to have spread in all directions. The following table gives the mean temperature for each 24 hours from the 10th to the 13th for Baghdad, Bushire, Ispahan, Teheran, Jask, Kabul, Chaman, Quetta, Jacobabad, Mooltan and Dera Ismail Khan:—

Station.	Mean temperature of 24 hours preceding 8 A.M. of			
	10th April.	11th April.	12th April.	13th April.
	°	°	°	°
Baghdad	71·3	72·9	73·8	69·8
Bushire	77·3	70·9	76·6	80·6
Ispahan	60·5	64·6	67·3	63·7
Teheran	50·9	51·5	61·5	...
Jask	80·0	80·5	81·3	80·8
Kabul	46·8	42·0	45·8	50·8
Chaman	52·7	57·7	69·2	71·0
Quetta	46·5	52·3	60·3	60·6
Jacobabad	78·3	76·8	81·3	86·1
Mooltan	74·1	73·7	75·7	76·4
Dera Ismail Khan .	64·7	63·7	70·2	69·0

The above shows that the principal rise of temperature occurred at all stations on the 12th so that apparently it was a general effect and not a wave of heat advancing over the country from the Persian area.

This rise of temperature extended very rapidly over India. The following gives variations of the mean temperature of India for the 13th and 14th and exhibits the extent and magnitude of the change :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	13th April.	14th April.
	°	°
Burma	+2·2	+2·8
Assam	+0·3	−0·8
Bengal	−2·4	−1·8
Orissa	−2·8	+0·2
Bihar	−3·9	−2·9
Chota Nagpur	−5·6	−2·6
North-Western Provinces and Oudh	−6·6	−1·8
Punjab	−6·9	−3·6
Sind	+2·4	+3·8
Rajputana	−0·8	+3·8
Gujarat	+0·4	+3·7
Central India	−4·2	−0·1
Central Provinces	−2·3	−0·1
Berar	+1·1	+3·5
West Coast	−0·3	+0·4
Bombay Deccan	+1·0	+1·9
Mysore	+2·0	−0·3
Madras Coast	−1·0	−0·4
Madras Deccan	−0·9	+0·7
South India	−1·3	+0·4

This second temperature period lasted from the 14th till the 22nd during which time the temperature over India was generally excessive. In the extreme north-west, however, light showers in the Punjab and Upper India hills kept the temperature low in that area, as is shown by the following table which gives the variation from the normal of the mean temperature for the Punjab for each alternate day from the 14th to the 22nd :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A. M. of				
	14th April.	16th April.	18th April.	20th April.	22nd April.
	°	°	°	°	°
Punjab	−3·6	−2·3	−1·4	+1·6	−1·5

Similarly a succession of severe rain and hailstorms occurred during this period in Assam and the adjacent districts, resulting in a deficiency of temperature in this area also. The following gives comparative data for each alternate day for Assam for the same period :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A. M. of				
	14th April.	16th April.	18th April.	20th April.	22nd April.
	°	°	°	°	°
Assam	−0·8	−3·9	−3·2	−5·1	−4·5

Over the remainder of India the mean temperature was generally in excess, as is shown by the following comparative data for each alternate day for the same period :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	14th April.	16th April.	18th April.	20th April.	22nd April.
	°	°	°	°	°
Burma	+2·8	+0·8	+1·5	+2·8	+2·0
Bengal	−1·8	+1·5	+2·4	−1·6	−0·7
Orissa	+0·2	+3·2	+0·5	−1·1	+0·9
Bihar	−2·9	+0·6	+3·0	+0·5	−1·1
Chota Nagpur	−2·6	+2·6	+1·3	+0·1	+3·2
North-Western Provinces and Oudh.	−1·8	+1·6	+0·4	+0·2	+5·3
Sind	+3·8	+5·9	+5·1	+7·8	+4·4
Rajputana	+3·8	+2·9	+2·8	+5·5	+5·7
Gujarat	+3·7	+0·6	+3·9	+4·9	+1·6

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	14th April.	16th April.	18th April.	20th April.	22nd April.
	°	°	°	°	°
Central India	—0·1	+5·8	+1·9	+5·3	+5·1
Central Provinces	—0·1	+5·8	+4·2	+6·5	+6·8
Berar	+3·5	+5·5	+6·0	+8·9	+5·5
West Coast	+0·4	+0·5	+1·2	+2·0	+1·4
Bombay Deccan	+1·9	+2·1	+5·0	+3·3	+3·4
Mysore	—0·3	+2·1	+3·4	+2·9	+3·6
Madras Coast	—0·4	+0·9	+0·2	+0·6	+2·9
Madras Deccan	+0·7	+2·2	+3·5	+3·2	+3·0
South India	+0·4	+3·2	+2·7	—0·1	+3·3

It will be seen, from the above, that the amount of the temperature variation increased as the period advanced. This is shown more clearly by the following table which gives data for the two stations at which temperature was most largely in excess during this period:—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
14th April	Deesa	+ 4·4	+ 7·8	+ 6·1
" "	Jacobabad	+ 2·5	+ 6·8	+ 4·7
15th "	Khandwa	+ 5·7	+ 9·9	+ 7·8
" "	Indore	+ 6·2	+ 7·9	+ 7·1
16th "	Jacobabad	+ 9·2	+11·2	+10·2
" "	Jubbulpore	+ 5·3	+ 9·4	+ 7·4
17th "	Jacobabad	+ 6·9	+14·2	+10·6
" "	Akola	+ 4·6	+ 9·7	+ 7·2
18th "	Rajkot	+ 5·3	+ 9·2	+ 7·3
" "	Chanda	+ 3·9	+ 9·8	+ 6·9
19th "	Jacobabad	+ 7·7	+ 9·7	+ 8·7
" "	Deesa	+ 3·6	+13·4	+ 8·5
20th "	Jacobabad	+10·6	+ 7·9	+ 9·3
" "	Hyderabad (Sind)	+12·6	+ 5·5	+ 9·1
21st "	Jacobabad	+ 7·5	+18·9	+13·2
" "	Jaipur	+ 7·1	+19·0	+13·1
22nd "	Jaipur	+ 2·0	+16·9	+ 9·5
" "	Agra	+ 2·3	+16·2	+ 9·3

On the 21st and 22nd light thunder showers occurred in the extreme north-west, accompanied with a rapid fall of temperature in Baluchistan and the Punjab. This wave of lower temperature appears to have originated in the mountainous region on the North-West Frontier of India, though on the 19th there occurred a marked fall of temperature at the Persian stations. The following gives the mean temperature for each day for the stations of Baghdad, Bushire, Teheran, Ispahan, Jask, Muscat, Kabul, Chaman, Quetta, Jacobabad, Mooltan and Dera Ismail Khan from the 18th to the 22nd:—

Station.	Mean temperature of 24 hours preceding 8 A. M. of				
	18th April.	19th April.	20th April.	21st April.	22nd April.
	°	°	°	°	°
Baghdad	71·4	67·0	72·3	74·5	76·3
Bushire	90·0	77·1	75·6	75·9	73·9
Teheran	57·0	52·6	47·6	55·6	56·0
Ispahan	66·9	64·8	60·8	61·4	61·5
Jask	87·0	90·8	90·0	87·8	87·0
Muscat	87·8	90·8	94·8	93·2	91·1
Kabul	57·3	59·3	61·3	58·8	58·8
Chaman	72·2	74·2	73·5	73·8	66·7
Quetta	64·0	65·1	68·1	68·1	56·1
Jacobabad	91·7	95·9	96·9	100·9	91·3
Mooltan	87·7	87·5	89·2	91·2	88·2
Dera Ismail Khan	80·7	82·7	87·0	86·2	73·2

The above shows a marked fall of temperature at the North Persian stations on the 19th when Bushire fell 13° in 24 hours, and in Baluchistan and the Indus valley on the 22nd, so that the fall in Baluchistan and the West Punjab may perhaps have been part of a general change which affected the Persian area two or three days before it affected the north-west frontier of India.

The following gives variation data of the temperature of the 24 hours preceding 8 A.M. of the 22nd and shows the appearance of the cold wave over the Punjab:—

Station.	Variation from normal of		
	Maximum temperature, 22nd April.	Minimum temperature, 22nd April.	Mean temperature, 22nd April.
	°		°
Dera Ismail Khan	—12·7	—5·0	—8·9
Khushab	— 8·6	—6·3	—7·5
Sialkot	—12·1	+0·3	—5·9
Montgomery	— 7·0	+1·1	—3·0
Rawalpindi	— 5·9	+0·4	—2·8
Peshawar	— 1·3	—1·9	—1·6
Lahore	— 3·0	+1·6	—0·7

This cold wave extended steadily, but not very quickly. It was very strongly marked at the hill stations, in Baluchistan and in the North-West Punjab on the 24th, as is shown by the following comparative data for those stations for the 24 hours preceding 8 A.M. of the 24th :—

Province or Division.	Station.	Variation from normal of		
		Maximum temperature, 24th April.	Minimum temperature, 24th April.	Mean temperature, 24th April.
		°	°	°
Baluchistan	Chaman	− 9·8	−11·2	−10·5
"	Quetta	−10·3	−10·3	−10·3
North-West Himalayas.	Murree	−15·3	−13·7	−14·5
"	Cherat	−15·2	−10·7	−13·0
"	Srinagar	−17·3	− 2·9	−10·1
"	Leh	−14·1	− 0·1	− 7·1

In the mean time thunder showers commenced in Southern India while they continued over North East India, so that there were lower temperatures than usual in both these localities, though over the central parts of India, the head of the Peninsula and over Burma the heat remained excessive. Both the north-western and the southern areas of deficient temperature, under the influence of further showers of rain, continued to exist for several days, but, on the contrary, the low temperatures in Assam and North Bengal gradually disappeared and an area of higher temperature than usual was established there adjoining the high temperature area over Burma. The mean temperature on the 27th was hence lower than usual except in Burma, Assam and North and East Bengal. This is shown by the following comparative data for this day :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 27th April.	Mean minimum temperature, 27th April.	Mean daily temperature, 27th April.
	°	°	°
Burma	+6·4	+4·9	+5·7
Assam	+2·4	+1·6	+2·0
Bengal	+0·3	+2·5	+1·4
Orissa	−1·0	−2·7	−1·9
Bihar	−2·2	+2·9	+0·4
Chota Nagpur	−7·6	−5·3	−6·5
North-Western Provinces and Oudh	−7·2	−4·3	−5·8
Punjab	−6·3	−7·2	−6·8
Sind	+2·3	−8·2	−3·0
Rajputana	−3·8	−2·4	−3·1
Gujarat	+1·0	+3·0	+2·0
Central India	−3·7	+2·4	−0·7
Central Provinces	−2·2	−1·1	−1·7
Berar	−0·6	−1·7	−1·2
West Coast	−2·3	−0·2	−1·4
Bombay Deccan	+0·1	+0·5	+0·3
Mysore	−3·7	−1·0	−2·4
Madras Coast	−7·1	−3·0	−5·1
Madras Deccan	−5·7	−3·2	−4·5
South India	−8·0	−1·8	−4·9

Two days later, on the 28th, a fall of rain over Cachar and Upper Burma reduced temperature to below the normal over that part of the country also, so that lower temperatures than usual were on that occasion reported from nearly all parts of India and these conditions continued more or less steadily till the close of the month. During this period of relative coolness the distribution of temperature, relatively to the normal, was rather irregular. This is shown by the following table which gives data for the two stations at which temperature was most largely in defect during the period April 23rd to April 30th :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
23rd April	Dehra Dun	− 6·1	− 9·8	− 8·0
" "	Umballa	− 6·7	− 6·7	− 6·7
24th "	Peshawar	−12·5	−11·7	−12·1
" "	Rawalpindi	−12·7	− 7·6	−10·2
25th "	Montgomery	−12·1	− 7·4	− 9·8
" "	Peshawar	− 8·0	−10·6	− 9·3

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
			°	°
26th April	Rawalpindi	−10·4	−11·8	−11·1
" "	Montgomery	−10·6	− 8·3	− 9·5
27th "	Do.	− 9·9	−10·0	−10·0
" "	Gorakhpur	−15·0	− 3·3	− 9·2
28th "	Masulipatam	−18·8	− 5·3	−12·1
" "	Nellore	−19·8	− 3·9	−11·9
29th "	Cocanada	−18·4	− 4·7	−11·6
" "	Masulipatam	−15·5	− 4·0	− 9·8
30th "	Chaibassa	−12·5	− 4·4	− 8·5
" "	Cocanada	−13·1	− 1·8	− 7·5

On the 29th a marked change set in which, like the preceding changes, apparently had its origin in the north-west. The following gives the mean temperature of the Persian, Baluchistan and frontier stations from the 27th to the end of the month :—

Province or Division.	Station.	Mean temperature of 24 hours preceding 8 A.M. of			
		27th April.	28th April.	29th April.	30th April.
		°	°	°	°
Persia	Teheran	70·3	64·5	58·4	52·4
	Ispahan	64·5	66·3	64·8	64·9
	Bushire	86·5	88·0	79·1	73·9
	Jask	78·5	79·3	82·0	85·5
Baluchistan	Quetta	59·3	61·6	68·8	67·3
	Chaman	71·2	74·2	77·2	81·0
	Shahrig	68·5	70·5	74·0	77·5
	Pishin	60·0	62·0	69·0	71·3
	Kalat	57·8	57·3	63·3	66·0
Frontier Stations.	Peshawar	73·5	77·3	79·5	81·3
	Cherat	68·2	72·2	74·3	74·5
	D. I. Khan	76·7	80·9	85·2	85·7
	Mooltan	82·2	87·0	87·2	92·2
	Jacobabad	85·3	89·0	91·4	94·6
	Hyderabad (Sind)	88·8	87·6	90·6	90·6
	Murree	60·8	63·3	65·4	67·1
	Parachinar	59·8	63·3	66·3	69·5

The above shows that the change apparently commenced over the Baluchistan and Afghanistan area on the 29th, whence it spread eastward over North-West India. The following gives variation data of the temperature of the 24 hours preceding 8 A.M. of the 30th showing the advance of the warm wave into North-West India :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 30th April.	Mean minimum temperature, 30th April.	Mean daily temperature, 30th April.
	°	°	°
Burma	−0·6	+2·0	+0·7
Assam	−1·0	−0·1	−0·6
Bengal	−0·5	+0·7	+0·1
Orissa	−3·9	−3·4	−3·7
Bihar	+3·3	−0·7	+1·3
Chota Nagpur	−8·2	−3·3	−5·8
North-Western Provinces and Oudh	−1·2	−5·3	−3·3
Punjab	+2·7	−2·1	+0·3
Sind	+4·2	−0·7	+1·8
Rajputana	+2·3	+2·7	+2·5
Gujarat	+0·7	−2·2	−0·8
Central India	−2·5	−2·8	−2·7
Central Provinces	−5·4	−4·4	−4·9
Berar	−1·3	−7·7	−4·5
West Coast	−0·9	+1·1	+0·1
Bombay Deccan	−0·6	+1·3	+0·4
Mysore	−2·7	+2·4	−0·2
Madras Coast	−6·4	−1·9	−4·2
Madras Deccan	−4·7	−2·5	−3·6
South India	−3·5	−1·5	−2·5

It will be observed that the temperature conditions on this date were almost the reverse of those prevailing over India on the 22nd, when the cold wave was just appearing over the Punjab.

The most marked feature in the temperature conditions of the month has been the advance from the north-westward of waves of heat and cold which have ordinarily appeared over Baluchistan and thence have spread eastward and south-eastward over the Indian area.

The following table gives the variations of the mean temperature, week by week, and also for the month. The

data are taken from the weekly weather reviews published in the Gazette of India:—

Province or Division.	Variation from normal of mean temperature for week ending				
	7th April.	14th April.	21st April.	28th April.	For whole month, April 1900.
	°	°	°	°	°
Burma	+2·0	+2·6	+1·8	+3·7	+2·9
Assam	+1·3	+1·4	−3·0	−1·4	−0·4
Bengal	+2·8	−1·6	+1·0	+0·5	+0·8
Orissa	+1·7	−1·5	+1·0	−1·1	−0·3
Bihar	+2·2	−1·3	+1·0	+1·2	+0·8
Chota Nagpur	+4·5	−2·0	+1·8	−0·4	+0·5
North-Western Provinces and Oudh.	+1·3	−6·7	+1·0	−1·7	−1·7
Punjab	−3·4	−7·9	−0·5	−5·0	−4·0
Sind	+0·7	−0·1	+6·6	−0·1	+1·4
Rajputana	+0·3	−2·8	+4·6	−0·5	+0·7
Gujarat	−0·2	+0·1	+3·1	+0·4	+1·1
Central India	+1·4	−2·7	+4·3	+0·8	+0·6
Central Provinces	+2·7	−0·1	+5·3	+1·8	+1·9
Berar	+2·4	+1·3	+6·4	+1·9	+2·5
West Coast	−0·3	−0·5	+1·1	−0·2	−0·3
Bombay Deccan	+1·0	+0·4	+3·0	+1·0	+1·2
Mysore	+1·5	+1·3	+2·6	+0·8	+1·4
Madras Coast	+1·5	0	+1·0	−1·4	0
Madras Deccan	+3·5	−0·2	+2·6	−0·1	+1·2
South India	+2·8	+1·6	+2·1	−2·5	+0·8

Winds.

The wind on the mean of the month was south-east by east at Port Blair instead of the normal easterly direction, but elsewhere in Burma and the Bay Islands the actual and normal wind directions agreed closely. The steadiness and velocity were also fairly normal. At Akyab, however, there was considerable difference between the actual and normal values. The following gives comparative data for direction, steadiness and velocity for Akyab:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900.	April Actual, 1900.	Normal, April.	Southerly deflection.	April Actual, 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°	°			
Akyab	7	37	−30	S 14 W	S 65 W	+51	63	96	−33

In Bengal and Orissa the wind direction varied between south-south-west and south-west; the steadiness and velocity varied irregularly from the normal, as is shown by the following comparative data:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900.	April Actual, 1900.	Normal, April.	Westerly deflection.	April Actual, 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°	°			
Chittagong	63	44	+19	S 44 W	S 9 W	+35	183	165	+18
Calcutta	66	71	−5	S 40 W	S 7 W	+33	156	169	−13
Saugor Island	84	78	+6	S 15 W	S 14 W	+1	504	419	+85
False Point	89	79	+10	S 22 W	S 31 W	−9	305	341	−36

The winds were also fairly normal over the Gangetic Plain, Chota Nagpur and the Upper Sub-Himalayas. In the last region the wind was even more unsteady than usual, but the mean actual velocity was generally above the normal. In the Indus Valley the wind was very variable. There was a north-west wind at Peshawar, a south-east wind at Jacobabad and a west-south-west wind at Kurrachee, while the steadiness and the velocity

were normal or below the normal. In Rajputana the wind was nearly westerly and the velocity about the normal. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°			
Jaipur . . .	27	52	—25	S 84 W	N 52 W	123	124	—1
Deesa . . .	51	57	— 6	N 89 W	S 88 W	225	228	—3

The following gives comparative data of direction, steadiness and velocity for the different divisions of Northern India on the mean of the month :—

Province or Division	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Westerly deflection.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°	°			
Bengal .	71	64	+ 7	S 33 W	S 10 W	+23	281	251	+30
Orissa .	89	79	+10	S 22 W	S 31 W	— 9	305	341	—36
Chota Nagpur.	60	46	+14	N 65 W	N 74 W	— 9	216	216	0
Bihar .	10	15	— 5	S 13 W	S 46 W	—33	131	142	—11
North-Western Provinces.	20	32	—12	N 83 W	N 67 W	+16	105	83	+22
Punjab .	21	27	— 6	N 35 W	N 24 W	+11	67	78	—11
Sind . .	37	47	—10	S 11 W	S	+11	183	215	—32
Rajputana .	39	55	—16	S 87 W	N 70 W	...	174	171	+ 3

The above shows that the wind on the mean of the month was less westerly than usual in West Bengal and more westerly than the average in other parts of Northern India. The velocity varied irregularly from the average, but the wind was more unsteady than usual except in the north-east.

A fairly steady north-north-west to west-north-west wind prevailed over the Central Provinces and the North Deccan, the direction having been generally more westerly than usual. The following gives data :—

Station.	Mean wind direction.		
	Actual, April 1900.	Normal, April.	Westerly deflection.
	°	°	°
Khandwa	N 47 W	N 49 W	— 2
Nagpur	N 83 W	N 65 W	+18
Belgaum	N 82 W	N 77 W	+ 5
Sholapur	N 26 W	N 5 E	+31
Poona	N 79 W	N 62 W	+17
Akola	N 47 W	N 48 W	— 1
Buldana	N 51 W	N 33 W	+18

The velocity was generally high, as is shown below :—

Station.	Mean wind velocity in miles per diem.		
	Actual, April 1900.	Normal, April	Variation of actual from normal, April 1900.
Khandwa	213	148	+ 65
Nagpur	171	161	+ 10
Belgaum	315	320	— 5
Sholapur	174	213	— 39
Poona	338	234	+104
Akola	160	139	+ 21
Buldana	279	212	+ 67

At Hyderabad, however, the wind, though steadier than usual, was light from the southward, instead of from west-north-west. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind direction		Mean wind velocity in miles per diem.		
	Actual percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900	Actual, April 1900.	Normal, April.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°			
Hyderabad (Deccan.)	20	2	+18	S 3 E	N 58 W	101	113	—12

The wind was a little more westerly than usual at Bombay and less westerly than usual at Karwar. The following gives data in illustration. The wind was steadier than usual along the West Coast :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Westerly Deflection.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°	°			
Bombay .	75	55	+20	N 80 W	N 57 W	+23	212	264	−52
Karwar .	85	76	+ 9	N 71 W	N 84 W	−13	132	98	+34

The wind was normal in direction at Madras and in parts of Mysore, but varied irregularly from the average elsewhere. The steadiness was low except at Madras and the mean velocity was generally below the normal.

The following table gives comparative data for all the divisions of the Peninsula for the wind direction, steadiness and velocity :—

Province or Division.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Westerly Deflection.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°	°			
Bombay, Deccan.	50	34	+16	N 62 W	N 47 W	+15	276	256	+20
Berar .	59	58	+ 1	N 49 W	N 41 W	+ 8	220	176	+44
Central Provinces.	42	42	0	N 65 W	N 57 W	+ 8	192	155	+37
Madras Deccan.	12	5	+ 7	S 68 W	W	−22	110	120	−10
West Coast	80	66	+14	N 76 W	N 71 W	+ 5	172	181	− 9
						Easterly deflection.			
South India	18	30	−12	S 23 E	S	+23	106	110	− 4
Mysore .	16	18	− 2	N 50 E	N 30 E	+20	146	141	+ 5
Madras Coast.	73	83	−10	S 37 E	S 37 E	0	175	185	−10

In Baluchistan the wind was weak but blew from the normal direction. The following gives data :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, April 1900.	Normal, April.	Westerly Deflection.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	°	°	°			
Quetta	N88W	N81W	+7	59	92	−33

In Kashmir and the North-West Himalayas the wind varied irregularly from the normal, but the steadiness was about the average and the velocity somewhat above it. At Darjeeling the wind was more southerly than usual and both steadiness and velocity were above the average. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, April 1900.	Normal percentage, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Southerly Deflection.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
				°	°	°			
Darjeeling .	57	44	+13	S 64 W	S 71 W	+7	253	206	+47

At the central hill stations the direction was less westerly than the normal and the force was stronger. The following gives data :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, April 1900.	Normal, April.	Westerly deflection.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	°	°	°			
Mount Abu . .	S 79 W	S 87 W	− 8	239	193	+46
Pachmarhi . .	N 53 W	N 62 W	− 9	145	138	+ 7
Chikalda . .	N 13 W	N 47 W	−34	240	194	+46

At Perim the wind was more southerly and stronger and steadier than usual. At Zanzibar there was unusual amount of westing in the wind while at the Seychelles the direction was very irregular, the mean wind direction for the month having been N 33° W, while the normal direction is S 69° E. The wind was, however, exceptionally

steady. The following gives comparative data of the mean daily air movement in the different provinces of India based on Table I :—

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
Burma	127	115	+12
Assam	154	115	+39
Bengal	139	180	—41
Orissa	257	221	+36
Bihar	130	101	+29
Chota Nagpur	125	202	—77
North-Western Provinces and Oudh.	96	96	0
Punjab	98	74	+24
Sind	163	226	—63
Rajputana	173	146	+27
Gujarat	226	240	—14
Central India	146	146	0
Central Provinces	122	103	+19
Berar	156	118	+38
West Coast	161	209	—48
Bombay Deccan	240	233	+ 7
Mysore	146	84	+62
Madras Coast	262	218	+44
Madras Deccan	170	127	+43
South India	103	96	+ 7

Humidity and Cloud.

In the Bay Islands, Burma, Bengal and Orissa the air was generally damper than usual, but the mean temperature was in excess and the relative humidity was below the normal except at Chittagong. The following gives comparative data for these two divisions :—

Province or Division.	Station.	Absolute humidity.			Relative humidity.		
		Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		"	"	"	%	%	
Burma Coast and Bay Islands.	Cocos Island	·867	·847	+·020	69	74	—5
	Rangoon	·817	·784	+·033	64	66	—2
	Diamond Island	·878	·851	+·027	74	76	—2
	Port Blair	·960	·929	+·031	76	77	—1
Bengal and Orissa.	Chittagong	·867	·816	+·051	78	74	+4
	Calcutta	·804	·791	+·013	66	68	—2
	Saugor Island	·927	·935	—·008	77	79	—2
	False Point	·935	·905	+·030	80	83	—3

At Hazaribagh the air was considerably damper than the normal so that, though the mean temperature was 1° above the average, the relative humidity was in excess. The following gives comparative data for this station :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	"	"	"	%	%	
Hazaribagh	·373	·303	+·070	34	28	+6

On the contrary in Bihar, the east of the North-Western Provinces and the Upper Sub-Himalayas the vapour tension was below the normal but the temperature at several stations was less than the average and the relative humidity was in several instances in excess. The following gives data for the stations in these areas :—

Province or Division.	Station.	Absolute Humidity.			Relative Humidity.		
		Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		"	"	"	%	%	
Bihar	Darbhanga	·520	·572	—·052	46	52	—6
North-Western Provinces, East.	Allahabad	·342	·381	—·039	29	31	—2
Upper Sub-Himalayas.	Dehra Dun	·299	·322	—·023	41	37	+4
Do.	Meerut	·391	·386	+·005	40	37	+3
Do.	Lahore	·356	·384	—·028	40	37	+3
Do.	Roorkee	·295	·328	—·031	34	34	0
Do.	Ludhiana	·347	·412	—·065	40	43	—3

In the Indus Valley the variations were irregular. At Peshawar and Kurrachee the absolute humidity was in defect and at Jacobabad in excess, while the relative humidity was in excess at Peshawar, nearly normal at Jacobabad and in considerable defect at Kurrachee. The following gives comparative data for these three stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	"	"	"	%	%	
Peshawar . . .	·389	·410	—·021	58	52	+ 6
Jacobabad . . .	·407	·363	+ ·044	33	32	+ 1
Kurrachee . . .	·702	·732	—·030	60	70	—10

In Rajputana the absolute humidity was normal and the relative humidity in slight excess. The following gives comparative data for the different divisions of Northern India :—

PROVINCE OR DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	"	"	"	%	%	
Bengal . . .	·866	·847	+ ·019	74	74	0
Orissa . . .	·935	·905	+ ·030	80	83	—3
Chota Nagpur . .	·373	·303	+ ·070	34	28	+6
Bihar	·520	·572	—·052	46	52	—6
Punjab . . .	·364	·402	—·038	46	44	+2
North-Western Provinces.	·333	·355	— 022	36	35	+1
Sind	·555	·338	+ ·017	47	52	—5
Rajputana . . .	·343	·343	0	30	28	+2

In the Deccan division the variations in the humidity conditions were irregular. At Hyderabad, Nagpur and Akola the absolute humidity was in excess, as is shown by the following table :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900	Actual, April 1900.	Normal, April.	Variation of actual from normal, April
	"	"	"	%	%	
Hyderabad . . .	·549	·536	+ ·013	42	44	—2
Nagpur . . .	·392	·385	+ ·007	27	28	—1
Akola . . .	·424	·301	+ ·123	30	23	+7

At the remaining stations the vapour tension and in most cases the relative humidity were below the normal. The following gives comparative data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	"	"	"	%	%	
Khandwa . . .	·312	·339	—·027	22	26	—4
Buldana . . .	·268	·301	—·033	21	24	—3
Sholapur . . .	·379	·399	—·020	28	30	—2
Belgaum . . .	·489	·520	—·031	50	51	—1
Poona . . .	·343	·374	—·031	32	31	+1

Along the West Coast both the absolute and relative humidities were below the normal. In South India the air was damper than usual generally and, notwithstanding that the mean temperature was above the normal, the relative humidity was generally excessive.

The following gives comparative humidity data for the different provinces of the Peninsula :—

PROVINCE OR DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	"	"	"	%	%	
Bombay Deccan . .	·404	·431	—·027	37	38	—1
Berar	·346	·301	+ ·045	26	24	+2
Central Provinces .	·352	·362	—·010	25	28	—3
West Coast . .	·794	·824	—·030	71	74	—3
Madras Deccan . .	·540	·529	+ ·011	41	42	—1
South India . .	·741	·731	+ ·010	60	59	+1
Mysore . . .	·564	·536	+ ·028	54	54	0
Madras Coast . .	·927	·870	+ ·057	80	74	+6

The air was damper than usual in the western hill districts as well as at the hill stations in the central parts of the country, but at the Eastern Himalayan stations as well as at Wellington in the south, the relative humidity was less than the normal. The excess in the relative humidity

was greatest, and 10 or more in amount, at the following hill stations :—

Station.		Absolute Humidity.			Relative Humidity.		
		Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		"	"	"	%	%	
Northern India.	Srinagar	·355	·328	+·027	88	71	+17
	Kailang	·148	·154	—·006	72	61	+11
	Leh	·125	·110	+·015	54	44	+10
Central Provinces.	Pachmarhi	·450	·248	+·202	41	26	+15
	Chikalda	·416	·278	+·138	36	26	+10

The variations of humidity from the normal on the mean of the month were generally rather irregular. Over the greater part of North-Western and Central India the air was damper than usual. The excess was greatest over the Central Provinces and Berar where both on the hills and plains there was a considerable excess. The following gives comparative data for this area of greatest excess :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	"	"	"	%	%	
Pachmarhi	·450	·248	+·202	41	26	+15
Chikalda	·416	·278	+·138	36	26	+10
Akola	·424	·301	+·123	30	23	+ 7

In addition the air was damper than usual over the Deccan and Mysore but the variations in this area of excess were small, as is shown below :—

Station.		Absolute Humidity.			Relative Humidity.		
		Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
		"	"	"	%	%	
Deccan	Poona	·343	·374	—·031	32	31	+1
	Bellary	·531	·522	+·009	40	39	+1
	Salem	·741	·731	+·010	60	59	+1
Mysore	Chitaldroog	·541	·480	+·061	47	45	+2
	Mysore	·633	·568	+·065	60	58	+2
	Bangalore	·541	·536	+·005	53	53	0

Finally the air was locally damper than usual at Madras and Chittagong, as is shown by the following comparative data :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual April 1900.	Normal, April.	Variation of actual from normal, April 1900.	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
	"	"	"	%	%	
Madras	·927	·870	+·057	80	74	+6
Chittagong	·867	·816	+·051	78	74	+4

Over the remainder of India the air was drier than usual, but the variations from the normal were small except in North Bombay, where at Kurrachee the deficiency amounted to 10 and was larger than at any other station in the Indian area.

There were three dry periods during the month. The first was between the 1st and the 6th when the air was very dry at the Deccan and South Indian stations; the second, the 14th to the 20th when the humidity was very low over the North-Western Provinces and the central parts of the country; and the third from the 25th to the end of the month when the humidity was generally low. The following gives the lowest humidities registered

during the month with the dates on which they were recorded :—

STATION.	Date.	Hour.	Lowest relative humidity, recorded during April 1900.
			%
Roorkee	17th April	4 P.M.	3
Dehra Dun	,, ,,	,,	5
Allahabad	,, ,,	,,	5
Chakrata	18th ,,	,,	4
Roorkee	,, ,,	,,	7
Allahabad	,, ,,	,,	7
Chakrata	19th ,,	,,	7
Deesa	20th ,,	,,	7
Deesa	23rd ,,	,,	5
Deesa	25th ,,	,,	5
Jamnagar	,, ,,	,,	6
Deesa	26th ,,	,,	6
Deesa	27th ,,	,,	2
Jamnagar	,, ,,	10 A.M.	3
Deesa	28th ,,	4 P.M.	2
Roorkee	,, ,,	,,	5
Ludhiana	,, ,,	,,	7
Jamnagar	,, ,,	,,	4
Deesa	29th ,,	,,	2
Akola	,, ,,	,,	2
Jaipur	,, ,,	,,	6
Roorkee	,, ,,	,,	5
Mount Abu	,, ,,	10 A.M.	7
Akola	30th ,,	4 P.M.	4
Buldana	,, ,,	,,	4
Deesa	,, ,,	10 A.M. and 4 P.M.	5
Khandwa	,, ,,	4 P.M.	7
Hazaribagh	,, ,,	,,	7

The air was drier than usual at Aden and damper than usual at Perim, while at Zanzibar the amount of moisture was exactly normal.

The following is a brief summary of the mean humidity conditions of the month :—

(1) The air was damper than usual over the greater part of North-Western and Central India.

(2) The excess was greatest in the west of the Central Provinces and in Berar and was absolutely greatest at the hill station of Pachmarhi.

(3) The air was slightly damper than usual in the Bombay Deccan and Mysore.

(4) It was locally damper than usual at Madras and Chittagong.

(5) Over the remainder of India the air was drier than usual, but the deficiency was small except locally at Kurrachee.

(6) The air was considerably damper than usual over the North-Western Himalayas.

Cloud was above the average at Port Blair but was less than usual at the Burma stations except Akyab where it was in considerable excess. The following gives comparative data for this area :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
Akyab	4·3	3·2	+1·1
Port Blair	4·6	4·3	+0·3
Cocos Island	2·3	3·1	—0·8
Diamond Island	2·6	3·4	—0·8
Rangoon	1·9	3·4	—1·5

The cloud amount was in excess over Bengal and Orissa, the Gangetic Plain and Chota Nagpur, the Upper Sub-Himalayas and as far west as Peshawar. The greatest excess in these areas was reported from False Point, Hazaribagh, Meerut and Lahore. The following gives data for these four stations :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
False Point	5·0	3·4	+1·6
Meerut	3·8	2·0	+1·8
Lahore	3·9	2·4	+1·5
Hazaribagh	5·4	2·8	+2·6

Over the remainder of the Indus Valley as well as over Rajputana the sky was clearer than usual of cloud. The following gives comparative data for the different divisions of Northern India and of Burma :—

PROVINCE OR DIVISION.	MEAN CLOUD AMOUNT.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
Burma Coast and Bay Islands	3·1	3·4	—0·3
Bengal	4·7	3·8	+0·9
Orissa	5·0	3·4	+1.6
Chota Nagpur	5·4	2·8	+2·6
Bihar	1·0	1·0	0
North-Western Provinces	3·1	2·0	+1·1
Punjab	4·4	3·3	+1·1
Sind	1·5	2·1	—0·6
Rajputana	1·4	2·0	—0·6

In the Deccan district the cloud amount was generally in excess, but there was a trifling local deficiency at Poona and Buldana, while the greatest excess was reported from Nagpur and Hyderabad. The following gives comparative data for these four stations :—

Station.	Mean cloud amount.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
Poona	2·0	2·5	—0·5
Buldana	1·6	2·3	—0·7
Nagpur	4·7	3·0	+1·7
Hyderabad	3·6	2·3	+1·3

Along the West Coast the weather was finer than usual, but in South India there was more cloud than usual, the excess having been greatest and large at Bellary. The following gives comparative data for the Peninsular divisions :—

Province or Division.	Mean cloud amount.		
	Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
Bombay Deccan	3·0	2·9	+0·1
Berar	2·3	2·2	+0·1
Central Provinces	3·5	2·4	+1·1
Madras Deccan	4·9	2·8	+2·1
West Coast	1·8	2·4	—0·6
South India	5·2	3·7	+1·5
Mysore	5·0	4·1	+0·9
Madras Coast	4·6	3·0	+1·6

In North-Western India where it will be remembered humidity was also in excess, the sky was more cloudy than usual while in the Eastern Himalayas the amount of cloud was less than usual. This is shown in the following table :—

Station.		Mean cloud amount		
		Actual, April 1900.	Normal, April.	Variation of actual from normal, April 1900.
North-Western Himalayas.	Simla	6·0	4·1	+1·9
	Srinagar	5·8	4·3	+1·5
	Kailang	6·9	5·7	+1·2
	Chakrata	4·7	3·5	+1·5
	Leh	6·8	6·2	+0·6
	Ranikhet	3·8	3·2	+0·6
Eastern Himalayas.	Katmandu	3·3	4·3	—1·0
	Darjeeling	5·1	6·1	—1·0

In Rajputana there was a slight deficiency of cloud on the hills as there was on the plains, while in the Central Provinces and in Southern India, as was the case with the plains stations, there was some excess.

At the extra Indian stations and more particularly at Aden and Perim the sky was clearer than usual on the mean of the month.

The general distribution of cloud, relatively to the normal, differed considerably from that of humidity. There was a deficiency of cloud all over North Bombay, Rajputana, the west and south of the Peninsula and Lower Burma, and an excess over the remainder of India. The excess was considerable over and along the foot of the North-Western Himalayas as well as over the Bay area, West Bengal and the east and centre of the Peninsula.

Rainfall.

April 1900, like April of last year, was unusually rainy over a large part of the Indian area. Unlike last year, however, the rainfall of the month under review was in largest and most general excess over Northern India.

The rainfall of the month was, on the other hand, scanty and less than usual over Burma, North Bengal, part of Bihar and of the east of the North-Western Provinces, as well as over the Konkan, Khandesh, Berar and parts of Madras.

The chief periods of rainfall were as follows :—

1st.—From the 2nd to the 4th, when Baluchistan, Kashmir, the North-West Himalayas and the Punjab received rain.

2nd.—The 6th to the 10th, when the whole of Northern India from Assam to Baluchistan including Rajputana and Central India received fairly general rain.

3rd.—The 14th, when the North-West Himalayas and the Punjab received showers.

4th.—The 22nd to the 24th, when Baluchistan, the North-West Himalayas and part of the Punjab had light rain.

5th.—The 23rd to the 29th, when the Peninsula and part of the Central Provinces received light to heavy thundershowers.

In North-East India there were storms occasioning rain

and hail from the 8th to the 10th. On the 11th the fall ceased and the weather was fairly fine till the 14th, when the storms recommenced and rain and hail fell until the end of the month. The extent of the disturbed weather varied from day to day, but on the 20th, 24th and 25th the storms were numerous and extended over a large area.

The rainfall on the 9th and 10th was remarkably extensive. Burma, the Central Provinces and the Peninsula were without rain, but the whole of the remainder of India received showers and in many cases the rainfall amounts were heavy.

The following table gives mean actual, mean normal and variation rainfall data of the month for the 56 meteorological districts into which India is divided:—

Province.	Division.	Number of rainy days. Average actual, April 1900.	Number of rainy days. Average normal, April.	Rainfall. Average actual, April 1900.	Rainfall. Average normal, April.	Rainfall. Variation of actual from normal, April 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim*	...	...	2·32	3·46	− 1·14
	Lower Burma (Deltaic)*	...	...	0·88	1·47	− 0·59
	Central do.*	...	...	0·62	0·97	− 0·35
	Upper do.*	...	...	0·71	1·50	− 0·79
	Arakan*	...	...	0·34	1·77	− 1·43
Bengal and Assam	Eastern Bengal	6·1	5·3	4·13	4·38	− 0·25
	Assam (Surma)*	...	...	19·34	13·43	+ 5·91
	Do. (Hills)*	...	...	11·30	9·61	+ 1·69
	Do. (Brahmaputra)*	...	...	8·80	7·40	+ 1·40
	Deltaic Bengal	4·9	3·5	2·86	2·36	+ 0·50
	Central do.	4·3	2·5	2·45	1·48	+ 0·97
	North do.	2·8	4·9	1·90	3·70	− 1·80
	Bengal Hills	5·7	8·3	3·67	5·73	− 2·06
	Orissa	3·6	1·8	1·55	1·11	+ 0·44
	Chota Nagpur	4·2	1·2	2·10	0·60	+ 1·50
	Bihar (South)	0·7	0·5	0·23	0·22	+ 0·01
	Do. (North)	0·4	1·4	0·09	0·81	− 0·72
North-Western Provinces and Oudh.	North-Western Provinces (East)	0·1	0·4	0·02	0·14	− 0·12
	Oudh (South)	0·5	0·3	0·12	0·12	0
	Do. (North)	0·9	0·4	0·26	0·17	+ 0·09
	North-Western Provinces (Central)	0·6	0·3	0·20	0·09	+ 0·11
	Do. do. (West)	2·0	0·4	0·60	0·14	+ 0·46
	Do. do. (Submontane, East)	0·7	0·5	0·21	0·27	− 0·06
	Do. do. (Do. West)	2·8	0·7	1·22	0·27	+ 0·95
	Do. do. (Hills)	4·8	2·4	2·49	0·83	+ 1·66
Punjab	Punjab (South-East)	2·1	0·6	0·99	0·25	+ 0·74
	Do. (South)	1·6	0·7	0·51	0·35	+ 0·16
	Do. (Central)	1·6	1·5	0·67	0·64	+ 0·03
	Do. (Submontane)	2·9	1·3	1·02	0·69	+ 0·33
	Do. (Hills)	7·7	3·2	3·43	2·22	+ 1·21
	Do. (North)	6·4	2·6	2·72	1·48	+ 1·24
	Do. (West)	1·8	0·9	0·75	0·41	+ 0·34
Bombay and Malabar Coast Districts (Madras).	Malabar	4·4	4·8	4·30	3·33	+ 0·97
	Travancore	8·2	...	6·51	...	...
	Madras (South Central)	4·6	2·8	3·45	1·71	+ 1·74
	Coorg	6·4	...	3·90	...	...
	Mysore*	...	...	1·90	1·31	+ 0·59
	Konkan	0·5	0·6	0·16	0·29	− 0·13
	Bombay Deccan	1·9	1·8	0·82	0·80	+ 0·02
	Hyderabad, North*	...	...	0	...	...
	Khandesh	0	0·3	0·04	0·13	− 0·09
Central Provinces and Berar.	Berar*	...	...	0·16	0·23	− 0·07
	Central Provinces (West)	0·6	0·5	0·25	0·19	+ 0·06
	Do. do. (Central)	1·0	0·7	0·33	0·29	+ 0·04
	Do. do. (East)	2·3	1·0	1·02	0·56	+ 0·46
Bombay (North)	Gujarat	0·5	0	0·15	0·01	+ 0·14
	Kathiawar and Cutch	0·4	0·1	0·19	0·08	+ 0·11
	Sind	0·6	...	0·19	0·21	− 0·02
	Baluchistan Hills	1·7	...	0·71	0·43	+ 0·28

* NOTE.—The figures noted against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Province.	Division.	Number of rainy days. Average actual, April 1900.	Number of rainy days. Average normal, April.	Rainfall. Average actual, April 1900.	Rainfall. Average normal, April.	Rainfall. Variation of actual from normal, April 1900.
				Inches.	Inches.	Inches.
Rajputana and Central India.	Central India (East)	0·5	...	0·14	0·11	+ 0·03
	Rajputana (East) and Central India (West)	1·7	...	0·60	0·06	+ 0·54
	Do. (West)	1·1	...	0·31	0·05	+ 0·26
Madras	East Coast (North)	2·2	1·5	1·63	0·84	+ 0·79
	Do. (do.) (a)	4·5	3·5	2·59	1·45	+ 1·14
	Hyderabad (South)*	...	...	1·00	...	...
	Madras (Central)	2·4	1·3	1·31	0·61	+ 0·70
	East Coast (Central)	2·1	0·9	1·99	0·45	+ 1·54
	Do. (South)	4·0	1·4	3·34	0·91	+ 2·43
	Madras (South)	4·3	3·2	3·11	2·21	+ 0·90

* Note.—The figures noted against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

The total rainfall of the month was one-tenth of an inch or less over the greater part of the Bombay Presidency as well as over part of the west of Bengal and of the east of the North Western Provinces. Taking the table given above, the month's rainfall was less than one-tenth of an inch in three out of the 56 divisions, *viz.*, North Bihar, the east of the North-Western Provinces and Khandesh; between one-tenth of an inch and half an inch in 15 divisions, and between half an inch and one inch in 12 divisions. The rainfall, on the other hand, exceeded 4 inches in the following divisions, *viz.*, Eastern Bengal, Assam, Surma, Assam Hills and Assam Brahmaputra. The most noticeable feature about the month's rainfall was the large excess, relatively to the normal; which was received in such dry areas as the west of the North-Western Provinces, the South-East Punjab Gujarat, Rajputana and Central India. The following gives comparative data showing the actual and percentage variation of the rainfall from the normal :—

Division.	Rainfall. Average actual, April 1900.	Rainfall. Average normal, April.	Rainfall. Variation of actual from normal, April 1900.	Rainfall. Percentage variation from normal.	Number of rainy days. Average actual, April 1900.	Number of rainy days. Average normal April.
	Inch.	Inch.	Inch.			
North-Western Provinces (West).	0·60	0·14	+ 0·46	+ 329	2·0	0·4
South East Punjab	0·99	0·25	+ 0·74	+ 296	2·1	0·6
Gujarat	0·15	0·01	+ 0·14	+ 1400	0·5	0
Central India East	0·14	0·11	+ 0·03	+ 27	0·5	—
Rajputana East and Central India West.	0·60	0·06	+ 0·54	+ 900	1·7	—
Rajputana West	0·31	0·05	+ 0·26	+ 520	1·1	—

Fine weather obtained in Burma until the 19th. Then showers commenced in Upper Burma, connected with the unsettled conditions over North-East India, but they never spread and on the 22nd the weather was again fine in all divisions. On the 23rd showers recommenced, this time both in Tenasserim and Upper Burma and thereafter showers occurred daily in some part of Burma until the close of the month. There was, however, no storm in this region during the month and no heavy rainfall, and the total rainfall of the month was in defect, as is shown by the following statement. The deficiency was very large in Arakan :—

Division.	Rainfall. Average actual, April 1900.	Rainfall. Average normal, April.	Rainfall. Variation of actual from normal, April 1900.	Rainfall. Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	2·32	3·46	—1·14	—33
Lower Burma (Deltaic)	0·88	1·47	—0·59	—40
Central Burma	0·62	0·97	—0·35	—36
Upper Burma	0·71	1·50	—0·79	—53
Arakan	0·34	1·77	—1·43	—81

In Assam there were fairly general showers from the 1st to the 10th. The rainfall amounts were generally

small and only exceeded 1 inch in the following instances :—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SYLHET	Samanbag	1st April	2·03
"	Sephinjuri Bil	" "	1·85
SIBSAGAR	Golaghat	" "	1·84
SYLHET	Habigonj	" "	1·50
SYLHET	Sylhet	" "	1·23
KHASI AND JANTIA HILLS.	Cherrapoonjee	" "	1·19
NAGA HILLS	Wokha	" "	1·12
CACHAR	Bikrampur	" "	1·11
"	Jatinga Valley	" "	1·05
NOWGONG	Nowgong	" "	1·04
NAGA HILLS	Tamlu	" "	1·04
GOALPARA	Tambulpur	" "	1·01
CACHAR	Nemotha	2nd April	2·00
SYLHET	Lalakhal	" "	1·68
NAGA HILLS	Wokha	" "	1·42
"	Tamlu	" "	1·40
SYLHET	Karimganj	" "	1·30
CACHAR	Barkhola	" "	1·22
SIBSAGAR	Golaghat	" "	1·16
CACHAR	Hailakandi	" "	1·04
KHASI AND JANTIA HILLS.	Cherrapoonjee	" "	1·03
SYLHET	Lalakhal	3rd "	2·85
LAKHIMPUR	Dum Duma	" "	2·16
CACHAR	Badarpur	" "	1·96
"	Jatinga Valley	" "	1·43
SIBSAGAR	Nazira	" "	1·33
SYLHET	Karimganj	" "	1·19
LAKHIMPUR	Pathalipam	" "	1·18
KHASI AND JANTIA HILLS.	Cherrapoonjee	" "	1·11
SYLHET	Sephinjuri Bil	" "	1·07
LAKHIMPUR	Balijan	" "	1·04
CACHAR	Nemotha	4th "	1·82
LAKHIMPUR	Balijan	" "	1·19
CACHAR	Dewan	5th "	1·79
LAKHIMPUR	Dibrugarh	" "	1·50
CACHAR	Nemotha	" "	1·32
"	Silchar	" "	1·13
LAKHIMPUR	Sadiya	" "	1·05
"	Moran	" "	1·05
SYLHET	Karimganj	6th April	2·13
NAGA HILLS	Cherrapoonjee	8th "	2·14
SIBSAGAR	Sanari	" "	1·70
"	Atabari	" "	1·08
KHASI AND JANTIA HILLS.	Cherrapoonjee	" "	3·58
KAMRUP	Bajali	9th "	1·38
SIBSAGAR	Nazira	" "	1·28
"	Sanari	" "	1·06
GOALPARA	Kachugaon	10th "	2·62
KAMRUP	Chhaygaon	" "	1·61
"	Balasbari	" "	1·09
"	Gauhati	" "	1·07
"	Mandakata	" "	1·06
"	Rangiya	" "	1·06

On the 11th the showers practically ceased and only a few light scattered showers were received between the 11th and the 14th. On the 15th rain recommenced moderately heavily and very generally and showers continued until the close of the month, though during the last three days of the month the rainfall was less general and less heavy than between the 15th and the 27th. The following gives comparative data of the month for the eight plains districts of Assam :—

DISTRICT.	RAINFALL.			
	Average actual, April. 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Cachar	18·11	12·52	+5·59	+45
Sylhet	16·94	12·40	+4·54	+37
Goalpara	7·01	8·07	−1·06	−13
Kamrup	8·30	7·56	+0·74	+10
Darrang	8·40	6·84	+1·56	+23
Nowgong	7·15	5·06	+2·09	+41
Sibsagar	12·76	8·64	+4·12	+48
Lakhimpur	12·94	10·19	+2·75	+27

The excess, it will be seen, was large in the Surma Valley where the following falls exceeding 4 inches in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cachar	Jatinga Valley	15th April	5·61
"	Bikrampur	" "	5·60
"	Barkhola	16th "	5·52
Sylhet	Lalakhal	" "	4·95
Cachar	Nimotha	" "	4·53
Sylhet	Sylhet	18th "	4·80
"	Chandpur	21st "	4·04
"	Lalakhal	23rd "	7·72
"	Karimganj	" "	5·40
Cachar	Badarpur	" "	4·18
Sylhet	Lalakhal	24th "	4·29

On the hills the rainfall was not very heavy, though the total for the month slightly exceeded the normal. At Cherrapoonjee the month's rainfall was about the average 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.
Khasi and Jaintia Hills.	Cherrapoonjee	17th April	6·11
Ditto ditto	Ditto	18th "	10·17
Ditto ditto	Ditto	19th "	8·13
Ditto ditto	Ditto	23rd "	6·43
Ditto ditto	Ditto	24th "	8·40

There were two periods of thundershowers and of disturbed weather in Bengal. The first ran from the 8th to the 10th, when fairly general rain fell except in North Bihar. The amounts were generally small and exceeded 1½ inches in 24 hours only in the following instances:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tippera	Nasirnagar	8th April	3·05
Jessore	Magura	"	1·61
Burdwan	Raniganj	"	1·61
Nadia	Ranaghat	"	1·54
Burdwan	Kalna	"	1·85
Tippera	Nasirnagar	9th April	4·07
Bankura	Bankura	"	1·65
Bogra	Sherpur	"	1·55
Mymensingh	Kishorganj	"	1·53
Tippera	Nasirnagar	10th April	3·50
Darjeeling	Siliguri	"	3·16
Jalpaiguri	Bhagatpur	"	1·85
Manbhum	Raghonathpur	"	1·80
Bogra	Pabna	"	1·54
Mymensingh	Atia	"	1·53

The second period of disturbed weather ran from the 20th to the 27th, when the rainfall was most general on the 20th, the 25th and the 27th. The following falls exceeding two inches were recorded during these eight days:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Backergunge	Barisal	20th April	2·62
Noakhali	Noakhali	" "	2·22
Mymensingh	Jamalpur	21st April	2·50
Tippera	Kasba	" "	2·35
Pabna	Pabna	22nd "	2·26
Nadia	Chuadanga	24th "	2·15
Mymensingh	Durgapur	25th "	2·40
Tippera	Nasirnagar	" "	2·30
Jalpaiguri	Alipore Duar	26th "	6·12
Cooch Behar	Fulbari	" "	4·10
" "	Cooch Behar	" "	3·23
Khulna	Rampal	" "	3·14
Bankura	Kotalpur	" "	2·87
Murshidabad	Dumkal	" "	2·80
Jalpaiguri	Falakata	" "	2·50
Bankura	Gangajalghati	" "	2·42
Khulna	Morellganj	" "	2·22
Darjeeling	Baxa	" "	2·16
Ranchi	Jashpur	27th "	3·39
Nadia	Meherpur	" "	2·40

The rainfall of the month was below the normal in North Bengal, North Bihar, and on the hills; it was normal in East Bengal, and South Bihar; and in excess over the remainder of the province.

The following is a comparative statement of the rainfall for the nine divisions of the province:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.	Average actual, April 1900.	Average normal, April.
	Inches.	Inches.	Inches.			
Eastern Bengal	4·13	4·38	−0·25	− 6	6·1	5·3
Deltaic "	2·86	2·36	+0·50	+21	4·9	3·5
Central "	2·45	1·48	+0·97	+66	4·3	2·5
North "	1·90	3·70	−1·80	−49	2·8	4·9
Bengal Hills	3·67	5·73	−2·06	−36	5·7	8·3
Orissa	1·55	1·11	+0·44	+40	3·6	1·8
Chota Nagpur	2·10	0·60	+1·50	+250	4·2	1·2
South Bihar	0·23	0·22	+0·01	+ 5	0·7	0·5
North "	0·09	0·81	−0·72	−89	0·4	1·4

The North-Western Provinces received rain during two periods. The first period occurred on the 8th and 9th over the greater part of the area, but extended from the 7th to the 10th in the submontane division. The rainfall was light except in the west and submontane divisions where the following falls exceeding one inch and a half in 24 hours were registered:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Garhwal	Joshimath	7th April	2·11
Almora	Champawat	9th "	1·80
"	Chaukuri	" "	1·60
Bijnor	Najibabad	10th "	1·85
Saharanpur	Salimpur	" "	1·80
Dehra Dun	Kalsi	" "	1·74
Almora	Ranikhet	" "	1·52

The second disturbed period lasted from the 22nd to the 24th. This fall was light and confined to Oudh and the submontane divisions. The total rainfall of the month was lighter than usual in the eastern divisions of the province, was normal in South Oudh, and was heavier than usual elsewhere. This is shown in the following statement:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.	Average actual, April 1900.	Average normal, April.
	Inches.	Inch.	Inches.			
North-Western Provinces, East.	0·02	0·14	−0·12	− 86	0·1	0·4
South Oudh	0·12	0·12	0	0	0·5	0·3
North Oudh	0·26	0·17	+0·09	+ 53	0·9	0·4
North-Western Provinces, Central.	0·20	0·09	+0·11	+122	0·6	0·3
North-Western Provinces, West.	0·60	0·14	+0·46	+329	2·0	0·4
North-Western Provinces, East Submontane.	0·21	0·27	−0·06	− 22	0·7	0·5
North-Western Provinces, West Submontane.	1·22	0·27	+0·95	+352	2·8	0·7
North-Western Provinces Hills.	2·49	0·83	+1·66	+200	4·8	2·4

From the 1st to the 10th the weather was very disturbed over the Punjab when nearly all parts of the province received rain. The amounts were generally light or moderate, but exceeded one inch in 24 hours in the following cases:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kohat	Fort Lockhart	1st April	1·06
Dera Ismail Khan	Shekh Budin	2nd "	5·93
Shahpur	Bhera	" "	1·39
Dera Ismail Khan	Shekh Budin	3rd "	1·50
Shahpur	Sakesar	" "	1·10
Rawalpindi	Murree	" "	1·08
Hazara	Haripur	" "	1·03
Gurdaspur	Dalhousie	" "	1·03
Kangra	Palampur	4th "	2·37
Jhelum	Chakwal	" "	1·48
Kangra	Nagar	" "	1·31
Simla	Simla	" "	1·31
Rawalpindi	Rawalpindi	" "	1·23
Kangra	Dharmsala	" "	1·10
Hazara	Abbottabad	" "	1·09
Gujrat	Sadar	" "	1·06
Gurdaspur	Dalhousie	8th "	1·47

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
RAWALPINDI	Gujar Khan	8th "	1·16
GURDASPUR	Dalhousie	9th "	1·70
JHELUM	Sadar	" "	1·40
RAWALPINDI	Kahuta	" "	1·26
"	Murree	" "	1·20
HAZARA	Abbottabad	" "	1·13
KARNAL	Thanesar	10th "	2·37
"	Kaithal	" "	2·35
DELHI	Ballabgarh	" "	1·85
LUDHIANA	Ludhiana	" "	1·65
KANGRA	Dharmsala	" "	1·50
HAZARA	Mansahra	" "	1·47
"	Abbottabad	" "	1·19
KARNAL	Gulah	" "	1·05

Showers occurred on the 14th, mainly in the Submontane and West Punjab divisions and another showery period, affecting most parts of the province, occurred between the 21st and the 23rd. The amounts were small during both these periods. The total rainfall of the month was normal over the Central Punjab, but was considerably to largely above the normal in the other divisions. The following gives comparative data for the province:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.	Average actual, April 1900.	Average normal, April.
	Inches.	Inches.	Inches.			
South-East Punjab	0·99	0·25	+0·74	+296	2·1	0·6
South Punjab	0·51	0·35	+0·16	+ 46	1·6	0·7
Central "	0·67	0·64	+0·03	+ 5	1·6	1·5
Punjab Submontane	1·02	0·69	+0·33	+ 48	2·9	1·3
" Hills	3·43	2·22	+1·21	+ 55	7·7	3·2
North Punjab	2·72	1·48	+1·24	+ 84	6·4	2·6
West "	0·75	0·41	+0·34	+ 83	1·8	0·9

Baluchistan received fairly general rain between the 1st and the 6th, and showers between the 10th and the 12th and between the 20th and the 22nd. The largest falls were recorded during the first period and were as follows:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BALUCHISTAN	Kuchlak	2nd April	1·22
	Syad Hamid	" "	1·19
	Fuller's Camp	" "	1·02
	Yarookarez	3rd "	1·40
	Sarawan	" "	1·38
	Gulistan	" "	1·28
	Pishin	" "	1·12
	Killa Abdulla	" "	1·02
	Fort Sandeman	5th "	0·44

With a brief interruption, between the 17th and the 20th, there was rain over Kashmir from the 1st to the 24th. On the 8th and 9th the rainfall was exceptionally heavy and the following large amounts in 24 hours were recorded on these two days:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KASHMIR	Sopore	8th April	1·86
	Meerpore	" "	1·75
	Punch	" "	1·69
	Kotli	" "	1·58
	Ramban	" "	1·55
	Vantipore	9th "	3·54
	Sri Protap Singh Pora	" "	2·30
	Srinagar	" "	2·18
	Pattan	" "	2·10
	Sopore	" "	2·03
	Sri Ranbir Singh Pora	" "	1·79
	Ramban	" "	1·68

Rajputana received general showers between the 7th and 9th and scattered, light showers up to the 17th. There were no heavy falls of rain, but the total rainfall of the

month was very largely in excess of the small normal fall. The following gives comparative data for the larger states:—

STATE.	RAINFALL.			
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.
	Inches.	Inch.	Inches.	
Jodhpur	0·34	0·03	+0·31	+1033
Jaipur	0·60	0·06	+0·54	+ 900
Alwar	0·48	0·09	+0·39	+ 433
Bharatpur	0·57	0·11	+0·46	+ 418
Dholpur	0	...	...	...
Kotah	0·84	0·05	+0·79	+1580
Ajmer	0·94	0·08	+0·86	+1075
Udaipur	0·15	0·08	+0·07	+ 88
Sirohi	1·20	0·03	+1·17	+3900

Central India had less rain than Rajputana, only a few light showers having fallen in this area between the 8th and the 11th. The following statement shows the total fall of the month for the larger states:—

STATE.	RAINFALL.			
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Indore	0·10	0·18	—0·08	— 44
Rutlam	0·20	0·02	+0·18	+900
Bhopal Agency	0·09	0·07	+0·02	+ 29
Gwalior	0·16	0·09	+0·07	+ 78
Nagode	0	0·15	—0.15	—100
Maihar	0	0·09	—0·09	—100
Rewah	0·07	0·15	—0·08	— 53
Bundelkhand	0·08	0·09	—0·01	— 11

The South Konkan districts of the Bombay Presidency received light showers on the 1st and 2nd, between the 13th and 16th and between the 20th and 24th, but Kolaba and Thana were rainless throughout. The following gives data for these districts:—

DISTRICT.	RAINFALL.			
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
North Kanara	0·69	0·87	—0·18	— 21
Kolaba	0	0·04	—0·04	—100
Thana	0	0·01	—0·01	—100
Ratnagiri	0·01	0·06	—0·05	— 83

In the Karnatak division showers were more plentiful, more especially on the 13th, 19th and 21st, when they were fairly general, though light. The following were the only cases of falls exceeding 1 inch in 24 hours in this division during the month:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DHARWAR	Haveri	13th April	1·75
	Savnur	14th ,,	1·08
KOLHAPUR AND OTHER SOUTHERN MARATHA COUNTRY STATES.	Mirja	19th ,,	1·03
DHARWAR	Dharwar	20th ,,	1·46
	Hubli	21st ,,	1·14
BELGAUM	Murgod	,, ,,	1·01

In the South Deccan the rainfall was light and generally fell on the 19th, while in the North Deccan, Khandesh and the south of Gujarat there was practically no rain throughout the month. In the Kaira and Ahmedabad districts of Gujarat, however, there were showers on the 9th and 10th. Kathiawar also had showers on the 9th and 10th and Sind on the 1st and 2nd and on the 8th. The total amounts were small, but generally considerably exceeded the small normal amount in the northern districts. The following is a comparative statement of the

rainfall of the month in the six divisions of the Presidency :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.	Average actual, April 1900.	Average normal, April.
	Inch.	Inch.	Inch.			
Konkan . . .	0·16	0·29	—0·13	— 45	0·5	0·6
Bombay (Deccan) .	0·82	0·80	+0·02	+ 3	1·9	1·8
Khandesh . . .	0·04	0·13	—0·09	— 69	0	0·3
Gujarat . . .	0·15	0·01	+0·14	+1400	0·5	0
Kathiawar and Cutch .	0·19	0·08	+0·11	+138	0·4	0·1
Sind	0·19	0·21	—0·02	— 10	0·6	...

The weather was feebly unsettled in Berar and the Central Provinces. Showers occurred between the 8th and the 12th and again between the 24th and 29th, the largest amounts in 24 hours having been as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Raipur . . .	Dhamtari . .	8th April .	0·75
Sambalpur . .	Bargarh . . .	12th ,,	0·55
Bilaspur . .	Janjgir . . .	24th ,, .	1·19
	Mungeli . . .	26th ,, .	2·50
	Pindaria . . .	,, ,, .	1·22
Chanda . . .	Mul	27th ,, .	0·68
Bilaspur . . .	Korlia . . .	27th ,, .	0·65
Bhandara . . .	Sakoli . . .	,, ,, .	0·53
Sambalpu . .	Sambalpur . .	,, ,, .	0·51
Chindwara . .	Chindwara . .	28th ,, .	1·55
Bhandara . .	Tirora . . .	,, ,, .	0·81
	Bhandara . . .	,, ,, .	0·65
Jubbulpore . .	Jubbulpore . .	,, ,, .	0·61
Bhandara . .	Sakoli . . .	,, ,, .	0·58
Bilaspur . . .	Findaria . . .	,, ,, .	0·57

The total rainfall of the month was less than usual in Berar, normal in the central division of the Central Provinces and in excess in the east and west divisions. The following statement gives rainfall data for this area :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.	Average actual, April 1900.	Average normal, April.
	Inches.	Inch.	Inch.			
Berar	0·16	0·23	—0·07	— 30	...	...
Central Provinces West	0·25	0·19	+0·06	+ 32	0·6	0·5
Do. Do. Central	0·33	0·29	+0·04	+ 14	1·0	0·7
Do. Do. East .	1·02	0·56	+0·46	+ 82	2·3	1·0

In Madras the rainfall was generally in large to considerable excess. There were two periods of more or less general rainfall over the Madras Presidency. In Malabar there were showers during the first half of the month, then a week of fine weather and a moderate burst of rain between the 20th and the 28th. During the showery period, in the first half of the month, the amounts were not large but in the second rainfall period there were some heavy falls, as is shown by the following table which gives the falls of over 2 inches in 24 hours in this region :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Travancore State .	Kunnatnad . . .	22nd April .	2·63
,, ,, .	Agastisvaram . .	,, ,, .	2·60
,, ,, .	Karunagapally . .	,, ,, .	2·24
Cochin State . .	Ernakulam . . .	,, ,, .	2·20
Travancore State .	Mavelikara . . .	,, ,, .	2·08
,, ,, .	Chengannur . . .	23rd ,, .	5·19
Malabar . . .	Cochin . . .	,, ,, .	5·07
Travancore State .	Thiruvellah . . .	,, ,, .	3·58
,, ,, .	Kartigapally . .	,, ,, .	2·64
,, ,, .	Parur	,, ,, .	2·62
,, ,, .	Kunnatnad . . .	,, ,, .	2·34
,, ,, .	Kottayam Engineer's Office.	,, ,, .	2·25
,, ,, .	Quilon	,, ,, .	2·15
,, ,, .	Ambalapuzha . .	,, ,, .	2·12
,, ,, .	Nedumangad . .	,, ,, .	2·04
,, ,, .	Pattanapuram . .	24th ,, .	7·54
,, ,, .	Kunnattur . . .	,, ,, .	7·20
Malabar . . .	Ponnani . . .	,, ,, .	4·55
,, . . .	Angadipuram . .	,, ,, .	4·50

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TRAVANCORE STATE	Kottarakaray	24th April	3·87
" "	Muvattupuzha	" "	3·03
" "	Kottayam	" "	2·97
MALABAR	Mannarghat	" "	2·38
"	Chowghat	" "	2·18
TRAVANCORE STATE	Pattanapuram	25th "	4·21
" "	Parur	" "	3·70
" "	Kartigapally	" "	2·84
MALABAR	Angadipuram	" "	2·30
"	Tellicherry	" "	2·13
TRAVANCORE STATE	Ettamanur	26th "	3·42
COCHIN STATE	Ernakulam	" "	2·10
MALABAR	Ottapalam	27th "	4·00
"	Mannarghat	" "	3·50
"	Cochin	" "	2·90
"	Angadipuram	" "	2·65
"	Quilandi	" "	2·48
"	Manjeri	" "	2·36
"	Nilambar	" "	2·25
"	Chowghat	" "	2·05

In south Madras the showers in the first half of the month were very light, but the burst of rain in the latter part of the month was well marked, and the following falls of over 2 inches were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MADURA	Morekulam	23rd April	3·40
TINNEVELLY	Vilattikulam	" "	2·20
MADURA	Ramnad	24th "	3·13
TINNEVELLY	Srivilliputtur	" "	2·55
"	Ottappidaram	" "	2·36
"	Watrap	" "	2·01
MADURA	Tiruppattur	25th "	2·20
"	Ramnad	26th "	2·75
"	Madura	" "	2·57
"	Morekulam	" "	2·25
"	Ramnad	28th "	2·49

Along the East Coast there was practically no rain until the close of the month when the general burst of rain occurred. The amount and extent of this burst of rain increased southward and was heaviest and most extensive in the south division. The following were the falls exceeding 2 inches in 24 hours:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TANJORE	Magilankottai	23rd April	3·85
VIZAGAPATAM	Padwa	" "	2·40
PUDUKKOTTAI STATE	Adanakkottai	" "	2·32
TANJORE	Magilankottai	24th "	3·40
"	Pattukkottai	" "	3·36
"	Muttupet	" "	3·17
PUDUKKOTTAI STATE	Karambakudi	" "	2·95
TANJORE	Tirutturaippundi	" "	2·65
GANJAM	Daringabadi	" "	2·11
PUDUKKOTTAI STATE	Alangudi	25th "	4·15
" "	Trimiem	" "	2·50
TANJORE	Tiruvadi	26th "	3·89
PUDUKKOTTAI STATE	Annavasal	" "	3·75
SOUTH ARCOT	Tiruvannamalai	" "	3·40
PUDUKKOTTAI STATE	Adanakkottai	" "	2·44
SOUTH ARCOT	Panruti	" "	2·09
PUDUKKOTTAI STATE	Pudukkottai	27th "	4·20
KISTNA	Pandraka	" "	4·15
TRICHINOPOLY	Lalgudi	" "	4·10
CHINGLEPUT	Kovelong	" "	3·79
NORTH ARCOT	Wandiwash	" "	3·77
"	Arni	" "	3·70
PUDUKKOTTAI STATE	Viralimalai	" "	3·70
SOUTH ARCOT	Tiruvannamalai	" "	3·50
NELLORE	Rapur	" "	3·40
SOUTH ARCOT	Gingee	" "	3·31
CHINGLEPUT	Congeeveram	" "	3·25
TRICHINOPOLY	Arivalur	" "	3·08
CHINGLEPUT	Vadasemmanjeri	" "	3·05
NELLORE	Nellore	" "	2·90
CHINGLEPUT	Chingleput	" "	2·90
"	Uttramerur	" "	2·87
SOUTH ARCOT	Merkanam	" "	2·75
GODAVARI	Bhimavaram	" "	2·72
PUDUKKOTTAI STATE	Odayalipatti	" "	2·70

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
South Arcot	Tindivanam	27th April	2·63
Chingleput	Madurantakam	" "	2·58
Tanjore	Tiruvadi	" "	2·45
Nellore	Gudur	" "	2·43
Godavari	Narsapuram	" "	2·40
Pudukkottai State	Kolattoor	" "	2·37
Godavari	Amalapuram	" "	2·36
Trichinopoly	Kilappaluvur	" "	2·25
Tanjore	Arantangi	" "	2·15
Godavari	Kottapeta	" "	2·13
Kistna	Kykalur	" "	2·13
Chingleput	Ponneri	" "	2·05
Pudukkottai State	Kurambakudi	" "	2·05
" "	Keelanilai	" "	2·05
Tanjore	Kattumavadi	" "	2·01
Trichinopoly	Kilappaluvur	28th "	3·42
Kistna	Masulipatam	" "	2·45
Nellore	Kavali	" "	2·44
Vizagapatam	Anakapalle	" "	2·38
Godavari	Narsapuram	" "	2·35
South Arcot	Tittagudi	29th "	2·25
Tanjore	Magelankottai	" "	2·07

In the south-central and central divisions of Madras the general distribution of rain was the same as in the other parts of the Presidency but the falls were lighter and less extensive. The following gives the amounts exceeding 2 inches in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Coimbatore	Dharapuram	25th April	2·02
Salem	Rayakota	26th "	2·68
"	Tattaiengarpettai	" "	2·38
"	Harur	" "	2·36
"	Palakodu	" "	2·09
Coimbatore	Dharapuram	" "	2·04
"	Bhavani	27th "	4·05
Salem	Sendamangalam	" "	3·95
Anantapur	Bukkapatnam	" "	3·47
Salem	Tiruchengodu	" "	3·14
"	Namakkal	" "	2·96
Coimbatore	Erode	" "	2·95
Salem	Rasipuram	27th April	2·88
"	Harur	" "	2·80
Cuddapah	Vayalpad	" "	2·67
Salem	Tattaiengarpettai	" "	2·50
Anantapur	Penukonda	" "	2·38
"	Uravakonda	28th "	2·92
Coimbatore	Karur	30th "	2·54

The total rainfall of the month was in very large excess in the central and south divisions of the East Coast, in considerable to large excess in the north division of the East Coast and the south-central and central divisions of Madras and in slight excess elsewhere.

The following gives rainfall data for each of the districts or collectorates of the Madras Presidency :—

District.	Number of rainy days.		Rainfall.			
	Average actual, April 1900.	Average normal, April.	Average actual, April 1900.	Average normal, April.	Variation of actual from normal, April 1900.	Percentage variation from normal.
			Inches.	Inches.	Inches.	
Ganjam	2·6	4·0	1·31	1·02	+0·29	+ 28
Vizagapatam	1·4	4·3	1·03	0·82	+0·21	+ 26
Godavari	2·5	2·8	2·58	0·58	+2·00	+345
Kistna	1·9	2·6	1·35	0·45	+0·90	+200
Nellore	2·1	1·8	1·99	0·45	+1·54	+342
Chingleput	2·6	2·1	2·77	0·59	+2·18	+369
Madras	4·0	1·1	3·09	0·60	+2·49	+415
North Arcot	2·6	3·5	1·92	0·65	+1·27	+195
South Arcot	3·8	3·4	3·49	0·74	+2·75	+372
Tanjore	6·2	3·5	4·64	1·23	+3·41	+277
Trichinopoly	4·3	4·6	3·89	1·50	+2·39	+159
Madura	5·3	3·8	3·98	2·34	+1·64	+ 70
Tinnevelly	3·2	2·9	2·15	2·22	—0·07	— 3
Malabar	6·6	9·0	6·55	4·05	+2·50	+ 62
South Canara	1·0	7·1	0·63	2·04	—1·41	— 69
Salem	4·5	6·2	3·32	1·39	+0·93	+ 67
Coimbatore	4·4	5·6	3·66	2·12	+1·54	+ 73
Nilgiris	5·4	9·8	3·05	3·73	—0·68	— 18
Cuddapah	2·8	2·8	1·38	0·51	+0·87	+171
Anantapur	2·0	3·2	1·65	0·63	+1·02	+162
Bellary	2·6	3·5	1·24	0·76	+0·48	+ 62
Kurnool	1·9	2·4	0·97	0·57	+0·40	+ 10

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

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	I.—Burma Coast and Bay Islands.				+·008								96·3	+2·0	78·5	+3·5	87·4	+2·8	17·8				
	Tenasserim and Bay Islands.	Car Nicobar	25									83·9	93·9		79·8*		86·9*		14·1	96·6	18th	77·8	3rd
		Port Blair	61	29·880	+·026	29·872	29·929	26th	29·809	29th	·120	83·5	92·6	+0·7	76·2	+3·1	84·4	+1·9	16·4	96·1	26th	74·4	2 days
		Mergui	96	29·834	+·011	29·862	29·903	27th	29·783	11th	·120	81·6	95·3	+1·7	75·8	?	85·6	?	19·5	99·2	20th	72·5	2 days
		Tavoy	26	29·909	−·004	29·865	29·969	26th	29·870	29th	·099	84·1	96·8	+2·5	79·0	+3·2	87·9	+2·9	17·8	99·4	4 days	74·3	23rd
		Moulmein	94	29·835	−·002	29·865	29·894	27th	29·789	3rd	·105	82·3	100·6	+2·6	78·1	+2·2	89·4	+2·4	22·5	105·1	20th	74·4	1st
2	Lower Burma	Rangoon	41	29·880	+·004	29·858	29·923	26th	29·838	3rd	·085	83·6	97·5	+1·6	78·5	+3·4	88·0	+2·5	19·0	100·2	16th	76·1	2 days
		Bassein	27	29·892	+·018	29·854	29·951	26th	29·844	11th	·107	84·0	88·4	−0·4	81·3	+3·2	84·9	+1·4	7·1	91·6	29th	79·7	2 days
		Diamond Island	41	29·888	+·011	29·863	29·942	27th	29·848	29th	·094	83·1	94·0	+2·1						98·4	11th		
5	Arakan	Akyab	20	29·887	+·007	29·850	29·957	26th	29·834	11th	·123	85·6	105·3	+5·2	79·0	+5·7	92·2	+5·5	26·3	107·7	2 days	73·2	2nd
3	Central Burma	Toungoo	183	29·709	0	29·833	29·771	2 days	29·654	11th	·117												
	II.—Burma Inland				+·019								101·6	+2·6	75·5	+3·1	88·6	+2·9	26·1				
3	Central Burma	Thayetmyo‡	134									87·2	106·3	+3·3	80·0	+4·3	93·2	+3·8	26·3	110·8	21st	74·6	18th
4	Upper Burma	Minbu	165	29·708	+·018	29·815	29·785	25th	29·656	11th	·129	85·4	106·2	+3·5	80·3	+4·7	93·3	+4·1	25·9	110·6	27th	74·6	2nd
		Yamethin	657	29·215	+·030	29·816	29·271	26th	29·166	11th	·105	85·2	104·6	+3·5	78·3	+3·6	91·5	+3·6	26·3	109·1	27th	69·7	12th
		Mandalay	250	29·613	+·020	29·809	29·673	27th	29·554	5th	·119	86·9	104·5	+3·0	78·7	+1·4	91·6	+2·2	25·8	110·6	15th	73·1	2nd
		Kindat	377	29·519	+·006	29·855	29·583	21st	29·406	5th	·177	75·8	95·3	−0·2	68·6	+1·7	82·0	+0·8	26·7	101·8	11th	65·8	5 days
		Bhamo	381	29·510†	?	29·853†	29·583	1st	29·421	4th	·162	74·4	92·7	−0·3	67·2	?	80·0	?	25·5	99·1	3 days	63·1	1st
4(a)	Burma Hill Stations.	Maymyo										74·2	83·4	?	61·5	+1·4	72·5	?	21·9	86·7	1st	55·0	2nd
		Taunggyi										73·0	92·7	+3·9	63·7	+1·4	78·2	+2·7	29·0	97·5	27th	56·5	2nd
		Lashio		27·081	−·017		27·134	26th	27·029	17th	·105												
	III.—Assam				+·019								85·3	−0·8	68·6	0	77·0	−0·4	16·6				
7	Surma	Silchar	104	29·808	+·029	29·866	29·885	25th	29·734	5th	·151	75·0	87·8	+0·2	69·1	+0·2	78·4	+0·2	18·7	92·5	14th	62·4	2 days
9	Brahmaputra	Sibsagar	333	29·564	+·012	29·861	29·648	26th	29·389	5th	·259	69·6	79·9	−2·7	66·8	+0·4	73·4	−1·2	13·1	90·2	6th	63·0	2 days
		Dhubri	115	29·729	+·016	29·802	29·848	26th	29·617	17th	·231	74·6	88·1	0	70·0	−0·6	79·1	−0·3	18·1	97·2	2 days	64·7	10th
	IV.—Bengal and Orissa				+·021								95·2	+0·6	74·6	+0·6	84·9	+0·6	20·6				
6	East Bengal	Chittagong	87	29·804	+·009	29·839	29·906	26th	29·748	24th	·158	81·8	91·3	+2·7	74·9	+1·4	83·1	+2·1	16·4	96·5	4 days	68·6	20th
		Noakhali	43	29·829		29·819	29·915	26th	29·764	17th	·151	81·3	89·9		73·4		81·7		16·5	95·1	14th	64·9	8th
		Comilla	36	29·839		29·824	29·949	26th	29·737	17th	·212	80·5	92·5		73·9		83·2		18·6	98·3	15th & 16th.	66·8	20th
		Sirajganj	49	29·783		29·782	29·871	10th	29·680	17th	·191	78·7	95·5		73·3		84·5		22·2	102·0	4th	66·9	14th
		Narayanganj	26	29·839	+·021	29·813	29·971	26th	29·753	17th	·218	81·2	92·1	−1·1	75·5	+1·2	83·8	+0·1	16·6	97·6	16th	68·2	10th
		Barisal	13	29·853	+·025	29·811	29·974	26th	29·755	16th	·219	83·1*	92·7	+1·5	76·2	+1·3	84·5	+1·4	16·5	98·3	2 days	68·6	24th
		Mymensingh	59	29·803	+·016	29·815	29·921	26th	29·711	17th	·210	77·5	89·7	−0·7	72·7	+0·9	81·2	+0·1	17·0	93·7	5th	67·5	25th
10	Deltaic Bengal	Faridpur	46	29·805		29·799	29·901	10th	29·714	17th	·187	79·4	94·6		74·5		84·6		20·1	100·8	3rd	66·9	8th
		Jessore	33	29·816	+·020	29·796	29·946	26th	29·714	17th	·232	82·8	97·4	+0·1	75·8	+0·7	86·7	+0·4	21·6	102·0	2 days	67·2	14th
		Calcutta	21	29·825	+·024	29·792	29·960	26th	29·739	17th	·221	82·7	96·5	+1·1	76·4	+0·7	86·4	+0·9	20·1	103·4	3rd	69·2	2 days
		Saugor Island	25	29·825	+·021	29·794	29·928	26th	29·737	16th	·191	84·1	91·3	+0·5	80·3	+0·5	85·8	+0·5	11·0	100·9	6th	71·6	20th
		Krishnagar	47	29·792		29·788	29·934	26th	29·688	17th	·246	82·4	98·1		75·0		86·6		23·1	104·0	3rd	69·3	6th
		Midnapore	149	29·687		29·784	29·798	26th	29·596	17th	·202	83·0	100·2		76·3		88·3		23·9	106·9	20th	69·2	th

* Mean of 28 days.

† Mean of 18 days.

I.

Stations in India, Burma, etc., in April, 1900.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 30th April 1900.	Normal rainfall for period, 1st March to 30th April.	Variation from normal of period, 1st March to 30th April.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				1·32	2·53	−1·20					I.—Burma Coast and Bay Islands.		
1	3	1	1	3	1		9	11	N 58° W	4·5		4·9	− 8	82	·963	4·1	5			2·19	2·18	+ 0·01	2·22	2·65	− 0·43	1·12	Car Nicobar.	Tenasserim and Bay Islands.	1
28	1							1	N 24° W	3·4	3·0	2·1	+43	80	·908	3·0	4			4·06	6·07	− 2·01	7·61	9·44	− 1·83	2·06	Port Blair.		
30									Calm	0·9				84	·904	0·5	5			2·28	3·91	− 1·63	4·80	5·28	− 0·48	1·01	Mergui.		
			2	8	4	14	2		S 12° W	4·0	4·4	3·2	+38	77	·903	2·8	1	4·00	− 3·00	0·86	2·95	− 2·09	0·86	3·36	− 2·50	0·86	Tavoy.		
					3	14	12	1	S 61° W	5·6		4·0	+40	78	·860	4·0	1	2·82	− 1·82	0·16	1·83	− 1·67	0·16	2·11	− 1·95	0·16	Moulmein.		
3	2						2	23	N 45° W	7·1		5·7	+25	78	·904	4·3	1	2·18	− 1·18	0·22	1·48	− 1·26	0·22	1·50	− 1·28	0·22	Rangoon.	Lower Burma.	2
3	2			2			5	18	N 51° W	8·7	8·7	5·1	+71	75	·888	3·7	1	2·09	− 1·09	0·26	1·16	− 0·90	0·26	1·17	− 0·91	0·26	Bassein.		
	8	12	6	2	1			1	N 46° E	2·5		7·2	−65	80	·902	3·7	2	1·09	+ 0·91	0·65	1·08	− 0·43	0·65	1·50	− 0·85	0·42	Diamond Island.		
1	1	2		15	8	3			S 28° E	4·9	4·9	4·0	+23	69	·864	4·0	1	1·00	0	1·23	2·09	− 0·86	1·40	2·14	− 0·74	1·14	Akyab.	Arakan.	5
																											Toungoo.	Central Burma.	3
																				1·15	1·38	−0·23					II.—Burma Inland.		
6			2	2	7	3	3	1	S 13° W	4·4		7·0	−37	58	·747	1·4	1	1·09	− 0·09	0·24	0·80	− 0·56	0·24	0·85	− 0·61	0·18	Thayetmyo§.	Central Burma.	3
	2	1		20	2	2	1	2	S 39° E	7·2	8·6			95		1·7	0			0	0·69	− 0·69	0	1·13	− 1·13	0	Minbu.	Upper Burma.	4
1				14	14			1	S 21° E	10·3	10·5			63	·759	1·2	2			2·41	1·75	+ 0·66	2·41	1·16	+ 1·25	1·84	Yamethin.		
9	1	1	1	1	9	4	1	3	S 22° W	5·8	5·9			52	·653	1·2	2			2·19	1·37	+ 0·82	2·20	1·55	+ 0·65	1·06	Mandalay.		
22	4	2			1	1			N 11° E	3·8	4·0			78	·700	4·3	3			0·65	1·82	− 1·17	1·52	3·09	− 1·57	0·20	Kindat.		
10	6	9				1	1	3	N 10° E	3·5	4·1			74	·627	6·2	4			1·38	1·83	− 0·45	2·51	2·70	− 0·19	0·45	Bhamo.		
				1	5	11	11	2	S 58° W					61	·510	2·5	1			0·37	1·60	− 1·23	0·54	1·64	− 1·10	0·27	Maymyo.	Burma Hill Stations.	4(a)
														63	·506	6·2	5			2·63	3·30	− 0·67	2·92	4·07	− 1·15	0·90	Taunggyi.		
																											Lashio.		
																				14·00	9·51	+4·48					III.—Assam.		
17		5	7					1	N 67° E	3·1	5·3	3·4	−56	85	·743	7·7	20	14·29	+ 5·71	25·58	14·34	+11·24	37·66	23·05	+14·61	4·00	Silchar.	Surma.	7
10	4	14						2	N 29° E	5·2	4·7	2·9	+62	93	·680	8·2	21	14·04	+ 6·96	12·47	9·37	+ 3·10	17·20	14·44	+ 2·76	1·36	Sibsagar.	Brahmaputra.	9
	1	7	16	1	1	3	1		N 84° E	7·9	9·3	8·0	+16	80	·692	5·2	7	7·67	− 0·67	3·94	4·83	− 0·89	8·07	6·76	+ 1·31	0·89	Dhubri.		
																				2·40	2·60	−0·20					IV.—Bengal and Orissa.		
	1	2	4	13	8			2	S 45° E	7·5	7·4	7·1	+ 4	80	·869	5·8	6	4·65	+ 1·35	2·60	3·85	− 1·25	2·96	6·37	− 3·41	0·96	Chittagong.	East Bengal.	6
			3	7	9	6	2	3	S 1° W	6·6	6·0			84	·901	5·1	8	4·62	+ 3·38	3·71	4·92	− 1·21	7·55	8·32	− 0·77	1·68	Noakhali.		
			2	8	18	1	1		S 14° E	9·5				79	·829	4·8	6	6·70	− 0·70	4·69	5·61	− 0·92	7·42	8·77	− 1·35	1·80	Comilla.		
2		3	6	6	8	3	1	1	S 37° E	4·5	4·6			83	·819	6·8	6	4·56	+ 1·44	2·21	3·05	− 0·84	3·21	4·43	− 1·22	0·58	Sirajganj.		
		2	3	6	12	3	4		S 10° E	8·3		6·7	+24	83	·887	5·8	6	7·08	− 1·08	2·46	5·17	− 2·71	4·72	7·84	− 3·12	1·28	Narayanganj.		
2			1	6	10	9	1	1	S 9° W	6·7				81*	·922*	6·2	7	4·50	+ 2·50	3·34	3·23	+ 0·11	3·51	5·75	− 2·24	1·30	Barisal.		
5			11	11					S 65° E	1·1	1·1			85	·802	6·3‡	10	6·23	+ 3·77	6·13	4·44	+ 1·69	16·80	6·46	+10·34	1·91	Mymensingh.		
3	1		3	1	17	4		1	S 1° E	3·2	3·8			87	·885	3·8*	6	6·23	− 0·23	2·67	4·20	− 1·53	3·96	6·80	− 2·84	1·07	Faridpur.	Deltaic Bengal.	10
8	1	1		2	11	5	2		S 12° W	2·9	2·9	4·5	−36	77	·873	5·1	4	4·73	− 0·73	1·91	3·71	− 1·80	3·40	5·86	− 2·46	0·86	Jessore.		
2	1	1	1		5	16	3	1	S 43° W	6·6		7·5	−12	78	·876	4·4	5	2·92	+ 2·08	2·75	1·74	+ 1·01	2·87	3·31	− 0·44	1·09	Calcutta.		
	1			1	16	10	2		S 19° W	21·1		16·7	+26	80	·937	5·7	3	2·00	+ 1·00	1·23	1·13	+ 0·10	1·63	2·37	− 0·74	0·42	Saugor Island.		
1		1		3	11	8	5	1	S 28° W	5·4				74	·818	3·8	5	3·35	+ 1·65	3·51	2·38	+ 1·13	3·76	3·71	+ 0·05	1·39	Krishnagar.		
6	1			3	19			1	S 3° E	4·6	6·0			70	·792	2·1	5	2·85	+ 2·15	1·89	1·50	+ 0·39	3·85	3·02	+ 0·83	0·80	Midnapore.		

‡ Mean of 25 days.

§ Winds for 21 days.

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Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
11	Central Bengal	Bankura	298	29·505		29·754	29·609	26th	29·402	17th	·207	82·6	101·1		76·4		88·8		24·7	107·6	22nd	69·3	9th
		Raniganj	334	29·486		29·769	29·599	27th	29·374	17th	·225	81·8	100·4		75·4		87·9		25·0	108·5	4th	66·8	10th
		Burdwan	99	29·733	+·020	29·780	29·863	26th	29·632	17th	·231	81·5	98·9	−1·7	75·9	+0·3	87·4	−0·7	23·0	106·4	3rd	70·4	8th
		Naya Dumka	489	29·326		29·771	29·428	26th	29·225	16th	·203	85·3	100·6		75·4		88·0		25·2	105·8	4th	67·9	10th
		Berhampore	67	29·757	+·015	29·773	29·840	27th	29·655	17th	·185	80·9			75·5	+1·1						67·7	10th
		Rampur Boalia.	70	29·730?		29·749?	29·836	26th	29·611	17th	·225	82·8	98·7		74·3		86·5		24·4	104·4	4th & 5th.	66·5	10th
		Malda	72	29·739		29·763	29·869	26th	29·619	17th	·250	80·5	98·2		71·9		85·1		26·3	104·2	4th & 5th.	63·9	6th
		Bogra	61	29·768		29·782	29·886	26th	29·662	17th	·224	78·2	97·2	+1·6	71·7	−0·2	84·5	+0·7	25·5	106·3	5th	64·2	2nd
12	North Bengal	Dinajpur	123	29·701	+·014	29·780	29·824	26th	29·571	17th	·253	77·6	97·7	+3·1	69·7	−0·7	83·7	+1·2	28·0	104·1	2 days	61·4	13th
		Rangpur	123	29·723		29·801	29·854	26th	29·613	17th	·241	78·0	94·3		68·7		81·5		25·6	100·8	18th	61·9	13th
		Jalpaiguri	284	29·561	?	29·808	29·683	26th	29·451	5th	·232	75·2	92·3	+3·3	68·4	+0·8	80·4	+2·1	23·9	98·4	28th	62·1	13th
		Cooch Behar	156	29·698		29·813	29·824	26th	29·582	5th	·242	74·9	89·3		69·4		79·4		19·9	95·5	6th	62·3	13th
17	North Bihar	Purnea	125	29·709	?	29·790	29·828	10th	29·587	17th	·241	79·6	98·5	+1·3	70·9	+1·3	84·8	+1·4	27·6	103·9	5th	62·7	14th
14	Orissa	Balasore	46	29·794	+·033	29·786	29·903	26th	29·716	23rd	·187	82·0	96·3	−1·1	75·6	−0·5	86·0	−0·8	20·7	104·5	16th	69·9	25th
		False Point.	21	29·848	+·027	29·811	29·953	26th	29·787	16th	·166	83·6	89·6	−1·0	75·5	+0·8	84·1	−0·1	11·1	95·5	14th	73·1	9th
		Cuttack	80	29·779	+·025	29·802	29·876	26th	29·695	16th	·181	82·9	101·7	−0·6	78·7	+0·7	90·2	+0·1	23·0	107·9	2 days.	75·2	2 days.
		Shortt's Island.	25	29·840		29·808	29·950	26th	29·750	21st	·200	83·6	89·5		79·4		84·5		10·1	94·9	6th	71·8	9th
		Puri	20	29·855		29·818	29·949	12th	29·795	16th	·154	83·0	88·8		79·9		84·3		8·9	91·7	27th	76·6	12th & 28th.
	V.—Gangetic Plain and Chota Nagpur.				+·025								100·1	−1·3	73·0	+0·6	86·6	−0·4	27·1				
15	Chota Nagpur	Hazaribagh.	2,007	27·831	+·021	29·769	27·915	26th	27·748	23rd	·167	82·0	98·3	+0·1	73·5	+1·3	85·9	+0·7	24·8	107·0	22nd	66·4	13th
		Ranchi	2,128	27·719	+·027	29·777	27·790	10th	27·644	23rd	·146	80·9	98·1	+0·6	72·6	+1·0	85·4	+0·8	25·5	105·3	23rd	64·9	28th
		Daltonganj	730?	29·072		29·761	29·173	10th	28·972	23rd	·201	79·6	104·5		72·5		88·5		32·0	112·6	22nd	66·5	6th
		Purulia		?		?	?		?		?	83·4	101·9		75·7		88·8		26·2	108·5	17th	70·4	9th
		Chaibassa	760	29·064		29·771	29·158	26th	28·974	23rd	·184	83·3	103·6	−0·5	75·9	+0·1	89·8	−0·2	27·7	110·2	22nd	70·3	28th
16	South Bihar	Gaya	375	29·433	+·017	29·760	29·538	10th	29·333	23rd	·205	85·4	102·3	−1·3	76·8	+2·4	89·6	+0·6	25·5	109·3	24th	72·8	30th
		Dehri	351	29·452		29·756	29·560	27th	29·355	21st & 23rd.	·205	86·0†	103·9†		77·9†		90·9†		26·0	110·4	22nd	74·0	6th & 30th.
		Patna	183	29·626	+·018	29·762	29·742	10th	29·534	17th	·208	82·2	99·9	−1·0	75·4	+2·1	87·6	+0·6	24·5	104·0	2 cays	69·2	13th
		Arrah	190	29·642		29·786	29·754	27th	29·550	23rd	·204	82·7	100·7		74·3		87·5		26·4	106·0	21st	67·3	13th
		Buxar	239	29·567		29·762	29·690	10th	29·460	23rd	·230	82·5	99·9		75·1		87·5		24·8	105·0	24th	69·1	6th
17	North Bihar	Bhagalpur	160	29·645		29·759	29·769	26th	29·544	16th	·225	81·7	99·3		73·1*		86·2*		26·2	104·7	4th	67·5	2nd
		Darbhanga	166	29·635	+·008	29·757	29·748	10th	29·541	17th	·207	78·9	96·8	+0·5	72·2	+0·4	84·5	+0·5	24·6	101·8	5th	67·2	13th
		Muzaffarpur	178	29·633		29·766	29·750	10th	29·521	17th	·229	79·6	96·6		70·4		83·6		26·2	100·2	5th & 18th.	64·5	13th
		Motihari	224	29·568		29·753	29·685	26th & 27th.	29·443	17th	·242	76·9	97·1		67·5		82·3		29·6	102·0	5th	59·8	6th
		Chapra	181	29·623		29·758	29·743	10th	29·533	23rd	·210	81·7	99·9		73·2		86·6		26·6	105·2	21st	67·4	13th
18	N.-W. Provinces (East).	Benares	267	29·540	+·026	29·763	29·683	10th	29·425	23rd	·258	82·0	101·9	−1·6	72·9	+0·7	87·4	−0·5	29·0	109·3	22nd	67·2	30th
		Allahabad	309	29·502	+·024	29·767	29·663	10th	29·393	23rd	·270	83·3	101·6	−2·4	72·7	+0·6	87·2	−0·9	28·9	111·1	22nd	67·3	10th
23	N.-W. Provinces (East Sub-montane).	Gorakhpur	256	29·544	+·031	29·759	29·682	10th	29·438	17th	·244	80·9	98·9	−1·9	72·8	+0·4	85·9	−0·8	26·1	103·6	3 days	66·7	8th
19	South Oudh	Lucknow	368	29·432	+·023	29·760	29·595	10th	29·324	21st	·271	81·1	101·1	−1·2	71·1	+0·1	86·1	−0·6	30·0	110·3	21st	63·8	11th
20	North Oudh	Bahraich	403	29·388	+·019	29·755	29·548	10th	29·278	20th	·270	79·9	98·0	−2·1	69·0	−1·1	83·5	−1·6	29·0	106·3	21st	62·0	13th
21	N.-W. Provinces (Central).	Cawnpore	416	29·393	+·040	29·764	29·545	10th	29·275	21st	·270	80·9	99·8	−1·9	71·7	−0·5	85·8	−1·2	28·1	110·0	22nd	64·0	9th
		Mainpuri	516	29·303	+·042	29·782	29·438	10th	29·164	21st	·174	78·4	97·8	−4·7	70·2	−0·2	84·0	−2·5	27·6	108·3	21st & 22nd.	60·0	10th

* Mean of 25 days.

† Mean of 19 days.

—continued.

tations in India, Burma, etc., in April 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 30th April 1900.	Normal rainfall for period 1st March to 30th April.	Variation from normal of period, 1st March to 30th April.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
15			1	2	3	3	5	1	S 40° W	4·0	4·6			62	·681	2·5	8	2·73	+5·27	4·72	1·34	+3·38	4·76	2·52	+2·24	1·65	Bankura	Central Bengal.	11
15			1	2	2	6	3	1	S 41° W	2·2				65	·703	2·1	7	2·27	+4·73	6·06	1·27	+4·79	6·06	2·09	+3·97	1·61	Raniganj.		
5		1			6	12	3	3	S 47° W	5·0	5·0	4·8	+ 4	77	·834	3·8	5	3·54	+1·46	3·44	2·06	+1·38	3·64	3·64	0	1·12	Burdwan.		
4	1	1	3	3	5	5	5	3	S 36° W	1·8	2·0			49	·582	4·3	2	2·46	−0·46	1·23	0·96	+0·27	1·23	1·81	−0·58	1·04	Naya Dumka.		
9			2	1	11	6		1	S 8° W	4·6	4·3	5·2	−17	74	·780	3·0	3	2·64	+0·36	1·77	1·50	+0·27	2·29	2·55	−0·26	0·97	Berhampore.		
5		2		5	5	9	3	1	S 21° W	6·0	6·2			70	·790	3·4	1	2·88	−1·88	1·02	1·69	−0·67	1·09	2·62	−1·53	0·90	Rampur Boalia.		
	4	1	2	4	9	3	2	5	S 18° W	3·5	3·3			64	·668	3·1	2	1·81	+0·19	1·29	1·12	+0·17	1·29	1·92	−0·63	1·08	Malda.		
														81	·782	1·9	3	3·88	−0·88	3·75	2·45	+1·30	3·83	3·51	+0·32	1·90	Bogra.		
		2	15	4	2	6	1		S 60° E	7·5	8·8			70	·658	5·3	2	3·12	−1·12	0·35	2·08	−1·73	0·44	2·95	−2·51	0·13	Dinajpur	North Bengal.	12
1		6	10	3	6	2	2		S 69° E	6·8	7·2			78	·747	3·1	1	4·69	−3·69	0·26	3·37	−3·11	0·52	4·61	−4·09	0·14	Rangpur.		
		5	9	12	3	1			S 66° E	2·8	3·5			73	·637	1·5	1	5·92	−4·92	0·35	4·11	−3·76	1·29	5·61	−4·32	0·24	Jalpaiguri.		
5		5	10	8	2				S 78° E	3·4	3·5			80	·691	3·8	6			5·25	5·35	−0·10	7·84	6·98	+0·86	3·23	Cooch Behar.		
2	5	4	6	2	2	1	4	4	N 23° E	5·0	7·7	3·6	+114	94	·960	3·4	0	2·04	−2·04	0·01	1·43	−1·42	0·10	1·83	−1·73	0·01	Purnea	North Bihar.	17
1	2				9	15	2	1	S 37° W	7·5				82	·896	4·5	5	3·62	+1·38	1·51	2·27	−0·76	5·63	3·72	+1·91	0·52	Balasore	Orissa.	14
1	1			2	6	15	3	2	S 41° W	13·3	12·7	13·3	− 5	83	·953	6·1	3	1·73	+1·27	0·40	1·77	−1·37	0·51	2·70	−2·19	0·16	False Point.		
9			1	1	2	16	1		S 38° W	4·7		5·1	− 8	75	·843	4·6	4	1·77	+2·23	1·46	1·15	+0·31	2·27	2·56	−0·29	0·49	Cuttack.		
				1	3	24	2		S 41° W	11·5	14·1			79	·915	3·5	2			1·02	1·41	−0·39	2·64	2·21	+0·43	0·87	Shortt's Island.		
2		2				25		1	S 47° W	14·9	14·7			85	·960	3·7	2	0·81	+1·19	1·47	0·45	+1·02	1·98	1·06	+0·92	1·17	Puri.		
																				0·83	0·35	+0·32					**V.—Gangetic Plain and Chota Nagpur.**		
	1		1		8	7	8	5	S 63° W	10·3	9·1	8·4	+ 8	39	·421	4·9	4	1·15	+2·85	1·99	0·41	+1·58	1·99	1·16	+0·83	1·11	Hazaribagh	Chota Nagpur.	15
3				2	9	8	3	5	S 40° W	7·0	8·0			45	·470	4·0	6	1·81	+4·19	3·79	0·64	+3·15	4·04	2·02	+2·02	1·32	Ranchi.		
8	3	5	4	7	1	1	1		S 89° E	4·8	5·7			44	·440	1·2	2	0·64	+1·36	0·98	0·24	+0·74	0·98	0·94	+0·04	0·80	Daltonganj.		
26					1		1	2	N 78° W	1·0‡				51	·560	1·2	6			4·37			4·93			1·50	Purulia.		
13						6	9	2	S 79° W	2·3	2·0			62	·697	1·9	10	1·69	+8·31	3·87	0·87	+3·00	4·14	2·14	+2·00	0·92	Chaibassa.		
5		2		4	2	10	7		S 42° W	6·1	5·5	3·8	+45	46	·566	2·6	1	0·54	+0·46	0·54	0·26	+0·28	0·54	0·69	−0·15	0·43	Gaya	South Bihar.	16
		1	1		10	9	9		S 41° W	5·5	6·3			38†	·464†	4·2	0	0·25	−0·25	0·03	0·08	−0·05	0·06	0·77	−0·71	0·03	Dehri.		
2		6	5	1	2	4	9	1	S 72° W	4·5	5·3	4·4	+20	48	·519	3·4	0	0·62	−0·62	0	0·26	−0·26	0	0·64	−0·64	0	Patna.		
4		4	2	3		2	13	2	N 84° W	3·6	3·7			43	·480	2·9	0	0·46	−0·46	0	0·23	−0·23	0	0·63	−0·63	0	Arrah.		
1		3	5	1		3	16	1	W	8·7	7·9			42	·471	3·0	0	0·35	−0·35	0·04	0·16	−0·12	0·04	0·48	−0·44	0·04	Buxar.		
4		6	8	2	1	4	4	1	S 27° E	4·9	4·5			54	·597	3·9	1	1·42	−0·42	0·38	0·90	−0·52	2·11	1·30	+0·81	0·27	Bhagalpur	North Bihar.	17
		1	10	8	1	3	6	1	S 49° E	5·3		5·1	+ 4	59	·583	1·7	0	1·44	−1·44	0	0·61	−0·61	0·01	0·93	−0·92	0	Darbhanga.		
15		1	5	4		1	3	1	S 63° E	3·3	2·9			64	·653	0·8	0	0·96	−0·96	0	0·48	−0·48	0	0·88	−0·88	0	Muzaffarpur.		
	1	3	11	2	1	9	1	2	S 56° E	5·5				71	·665	0·4	0	1·17	−1·17	0·02	0·70	−0·68	0·10	1·11	−1·01	0·01	Motihari.		
7	1	1	6	2	2	6	5		S 9° W	3·8	4·7			50	·542	4·9	0	0·54	−0·54	0	0·22	−0·22	0	0·59	−0·59	0	Chapra.		
11		3		2		6	5	3	S 80° W	3·1	3·5	5·0	−30	42	·462	2·6	0	0·27	−0·27	0	0·08	−0·08	0	0·36	−0·36	0	Benares	N.-W. Provinces (East).	18
3	1	2	2	1	1	6	12	2	S 81° W	5·3	6·0	4·9	+22	38	·421	2·4	0	0·55	−0·55	0·01	0·11	−0·10	0·01	0·43	−0·42	0·01	Allahabad.		
9		2	3	1	4	1	3	7	N 75° W	2·9		4·4	−34	52	·541	3·0	2	0·73	+1·27	0·46	0·43	+0·03	0·79	0·85	−0·06	0·26	Gorakhpur	N.-W. Provinces (East Submontane).	23
2	2	1	1	1	2	3	14	4	N 87° W	3·0	3·2	4·4	−27	42	·435	4·9	1	0·27	+0·73	0·17	0·02	+0·15	0·17	0·39	−0·22	0·13	Lucknow	South Oudh.	1
3	8		5		2		10	2	N 41° W	6·0	5·6			51	·510	3·1	0			0·11	0·34	−0·23	0·11	0·81	−0·70	0·07	Bahraich	North Oudh.	20
15	2	1	1	1		1	5	4	N 56° W	2·9				43	·436	1·3	1	0·50	+0·50	0·10	0·13	−0·03	0·10	0·40	−0·30	0·10	Cawnpore	N.-W. Provinces (Central).	21
7	3		1		1	1	14	3	N 75° W	3·1	3·1			42	·395	5·0	3	?		1·42	0·12	+1·30	1·42	0·36	+1·06	0·81	Mainpuri.		

‡ Mean of 29 days.

Abstract of Observations taken at 8 A.M. a

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	VI.—Upper Sub-Himalayas				+·037								91·3	−5·3	65·4	−1·3	78·4	−3·3	25·9				
24	N.-W. Provinces (West Submontane).	Bareilly	569	29·228	+·035	29·767	29·384	10th	29·116	20th	·268	76·7	94·9	−4·6	69·8	+1·1	82·4	−1·8	25·1	104·9	21st	61·7	9th
		Dehra Dun	2,233	27·593	+·014	29·805	27·729	10th	27·493	22nd	·236	68·4	86·4	−3·8	60·4	−3·9	73·4	−3·9	26·0	95·5	21st	51·0	12th
		Roorke	887	28·917	+·036	29·784	29·065	10th	28·773	22nd	·292	74·9	93·4	−4·7	64·6	−2·0	79·0	−3·4	28·8	102·7	21st	54·9	12th
22	N.-W. P. (West)	Meerut	738	29·060	+·031	29·774	29·203	10th	28·934	22nd	·269	75·8	94·6	−3·8	67·4	−0·5	81·0	−2·2	27·2	103·7	21st	58·8	12th
26	South-East-Punjab.	Delhi	718	29·094	+·035	29·783	29·240	10th	28·961	22nd	·279	77·3	93·6	−6·8	72·5	−0·8	83·1	−3·8	21·1	104·7	21st	62·6	9th
28	Central Punjab.	Lahore	702	29·117	+·049	29·801	29·303	10th	28·920	9th	·383	74·0	91·9	−4·7	64·5	−0·2	78·2	−2·5	27·4	104·6	30th	56·0	10th
27	South Punjab	Sirsa	662	29·141	+·027	29·775	29·292	10th	29·029	20th	·263	77·8	93·9	−6·6	67·4	−0·7	80·7	−3·7	26·5	104·3	21st & 30th.	56·1	4th
		Patiala	818	28·993		29·789	29·150	10th	28·852	22nd	·298	76·3	91·9		67·4		79·7		24·5	102·5	22nd	57·9	4th
29	Punjab (Submontane).	Ludhiana	812	28·986	+·028	29·781	29·158	10th	28·870	9th	·288	73·9	91·3	−6·3	66·6	−0·1	79·0	−3·2	24·7	103·0	30th	57·2	4th
		Sialkot	830	28·994	+·060	29·809	29·171	10th	28·812	9th	·359	73·6	89·9	−5·0	64·6	−1·4	77·3	−3·2	25·3	103·6	30th	55·7	4th
		Umballa	892	28·905	+·032	29·778	29·067	10th	28·764	22nd	·303	71·3	92·1	−5·7	65·5	−1·0	78·8	−3·4	26·6	101·5	30th	58·0	4th
31	North Punjab	Rawalpindi	1,676	28·173	+·058	29·861	28·386	10th	27·993	9th	·393	67·1	81·7	−6·3	54·5	−5·1	68·1	−5·7	27·2	98·1	30th	42·5	10th
	VII.—Indus Valley and North-West Rajputana.				+·036								94·7	−3·4	9·0	−0·8	81·9	−2·1	25·6				
31	North Punjab	Peshawar	1,110	28·776	+·048	29·902	29·021	10th	28·611	9th	·410	67·4	80·6	−6·0	57·6	−3·1	69·1	−4·6	23·0	99·0	30th	49·0	7th & 10th.
32	West Punjab	Khushab	612	29·227	+·067	29·822	29·417	10th	29·006	9th	·411	74·3	88·8	−6·3	64·0	−4·1	76·4	−5·2	24·8	104·3	30th	50·8	9th
		Montgomery	558	29·270	+·051	29·804	29·444	10th	29·066	9th	·378	76·8	91·8	−8·5	65·3	−2·9	78·6	−5·7	26·5	105·0	30th	53·0	4th
		D. I. Khan	594	29·280	+·043	29·835	29·524	10th	29·071	9th	·453	71·7	87·7	−5·5	62·3	−2·6	75·0	−4·1	25·4	104·3	30th	52·6	11th
		Mooltan	420	29·421	+·041	29·819	29·604	10th	29·226	9th	·378	74·4	92·9	−4·9	67·8	+0·3	80·4	−2·3	25·1	108·4	30th	59·4	4th
47	Sind	Jacobabad	186	29·635	+·031	29·784	29·799	26th	29·447	20th	·352	81·5	101·7	−0·4	70·6	+1·7	86·2	+0·7	31·1	116·1	30th	60·0	1st & 25th
		Hyderabad	96	29·742	+·017	29·792	29·869	27th	29·606	21st	·263	82·0	102·3	+0·4	73·2	+1·2	87·8	+0·8	29·1	115·2	20th	65·5	25th
		Kurrachee	30	29·845	+·020	29·825	29·954	27th	29·737	21st	·217	81·9	94·3	+3·0	75·4	+2·3	84·9	+2·7	18·9	105·4	28th	65·7	25th
51	West Rajputana	Bikaner	771	29·036	+·009	29·778	29·200	12th	28·884	20th	·316	81·4	98·1	−2·5	74·0	+0·4	86·1	−1·1	24·1	110·0	21st	64·0	4th
		Pachpadra	380	29·452		29·789	29·576	27th	29·331	21st	·245	83·7	102·8		74·0		88·4		28·8	114·7	20th	65·0	4th
		Jodhpur	782	29·036		29·802	29·167	27th	28·928	21st	·239	81·4	100·4		75·2		87·9		25·2	110·7	20th	66·3	8th
	VIII.—East Rajputana, Central India, and Gujarat.				+·019								99·2	·1·3	74·0	+2·4	86·6	+0·6	25·1				
50	East Rajputana	Jaipur	1,431	28·425	+·030	29·819	28·558	27th	28·322	20th	·236	80·4	98·0	−2·5	72·7	+3·4	85·4	+0·5	25·3	110·2	21st	62·1	9th
		Kotah	819	29·014			29·148	12th	28·904	20th	·244	85·9	101·0		77·6		89·3		23·4	111·6	21st	63·6	9th
		Sambhar	1,254	28·593	+·038	29·814	28·721	27th	28·482	21st	·239	79·6	97·5	−1·6	71·7	?	84·6	?	25·8	109·5	21st	63·6	5th
		Ajmer	1,611	28·245	+·015	29·821	28·372	27th	28·139	21st	·233	79·9	96·6	−2·0	73·7	+3·4	85·2	+0·7	22·9	107·9	21st	63·7	28th
		Udaipur	1,925	27·953		29·818	28·060	27th	27·883	9th	·177	83·5	97·2		73·8		85·5		23·4	106·0	20th	62·8	9th
		Deesa	466	29·399	+·008	29·820	29·472	1st	29·332	24th	·140	84·1	103·4	+0·5	75·7	+4·8	89·6	+2·7	27·7	113·1	20th	67·5	9th
46	Kathiawar and Cutch.	Bhuj	395	29·481	?	29·830	29·574	1st	29·402	16th	·172	82·9	100·7	+0·5	73·8	+2·8	87·3	+1·7	26·9	111·8	20th	67·9	9th
		Jamnagar	61	29·822		29·829	29·922	1st	29·760	21st & 22nd.	·162	82·6	96·8		72·6		84·7		24·2	107·2	28th	66·2	3rd
		Rajkot	429	29·450	+·002	29·854	29·550	1st	29·394	21st	·156	80·7	103·3	+1·1	70·7	+1·7	87·0	+1·4	32·6	110·9	19th & 20th.	60·9	24th
		Veraval		29·871	+·010	29·831	29·962	1st	29·811	18th	·151	79·8	84·4	?	74·3	+1·9	79·3	?	10·1	93·1	27th	68·3	3rd & 26th.
		Bhavnagar Para.	35	29·844	0	29·825	29·922	1st	29·781	25th	·141	83·4	103·5	?	74·4*	?	88·8*	?	29·1	112·7	20th	67·3	3rd
49	Central India	Nowgong	757	29·076	+·023	29·783	29·208	12th	28·965	21st	·243	83·0	100·7	−3·1	72·5	+1·4	86·6	−0·9	28·2	110·0	21st	63·0	12th
		Indore	1,823	28·060	+·027	29·815	28·128	12th	27·999	25th	·129	84·1	101·4	+1·2	71·6	+2·5	86·5	+1·9	29·8	108·8	21st	62·1	29th
		Neemuch	1,630	28·248	+·036	29·827	28·338	12th	28·176	20th	·162	83·1	99·1	−1·3	72·9	+2·2	86·1	+0·5	26·2	108·6	21st	64·5	9th
45	Gujarat	Surat	39	29·859	+·001	29·840	29·940	1st	29·783	25th	·157	83·4	98·4	−1·8	75·6	?	87·0	?	22·8	109·6	14th	70·5	1st
		Ahmedabad†	164	29·735	?	29·846	29·809	1st	29·665	25th	·144	85·1	104·5	−1·1	77·0	+1·5	90·7	+0·2	27·5	112·3	20th	70·6	9th

* Mean of 28 days.

I—*continued.*

Stations in India, Burma, etc., in April, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 30th April 1900.	Normal rainfall for period, 1st March to 30th April.	Variation from normal of period, 1st March to 30th April.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				1·28	0·60	+0·75					VI.—Upper Sub-Himalayas.		
19	1	1	1			1	2	5	N 45° W	3·1	3·0	4·5	− 33	43	·379	5·0	2	0·45	+ 1·55	0·90	0·17	+0·73	1·26	1·11	+ 0·15	0·62	Bareilly	N.-W. Provinces (West, Sub-montane).	24
12	1	4	1	3			5	4	N 26° W	3·4		2·6	+ 31	52	·352	3·8	6	1·45	+ 4·55	1·66	0·53	+1·13	1·69	1·60	+ 0·09	0·45	Dehra Dun.		
21			2			1	1	5	N 49° W	4·9		3·2	+ 53	43	·352	3·3	4	1·18	+ 2·82	1·20	0·42	+0·78	1·29	1·14	+ 0·15	0·46	Roorkee.		
16		1	2	1			8	2	N 80° W			2·4		49	·416	3·7	3	0·73	+ 2·27	1·12	0·24	+0·88	1·22	1·01	+ 0·21	0·67	Meerut.	N.-W. P. (West).	22
5	1	4	2	2	1		7	8	N 42° W	3·6	3·3	3·9	− 16	42	·358	3·7	3	0·64	+ 2·36	1·04	0·24	+0·80	1·59	0·80	+ 0·79	0·47	Delhi	South-East Punjab.	26
11	6	2		5	2	2	1	1	N 60° E	3·3		3·3	0	50	·413	3·7	2	1·45	+ 0·55	0·38	0·46	−0·08	0·57	1·19	− 0·62	0·16	Lahore	Central Punjab	28
		12	2	8	1	2	1	4	N 74° E	6·2	7·2	4·0	+ 80	49	·437	0·9	1	0·64	+ 0·36	1·17	0·31	+0·86	1·19	0·68	+ 0·51	1·09	Sirsa	South Punjab.	27
18	2	1		2	2	1	3	1	S 68° W	4·6				47	·412	1·8	1			0·43			0·86			0·35	Patiala.		
7	10	2	3	3	2		3		N 27° E	3·5	3·1	2·1	+ 48	50	·409	3·0	3	1·55	+ 1·45	2·38	0·85	+1·53	2·41	1·84	+ 0·57	1·82	Ludhiana	Punjab (Submontane).	29
3	7	6	4	3	2	1		4	N 38° E	3·5		2·3	+ 52	49	·393	2·4	1	2·09	− 1·09	0·44	0·91	−0·47	1·34	2·09	− 0·75	0·24	Sialkot.		
16		1	2	3				8	N 11° W	3·5				59	·411	1·9	3			0·87	0·53	+0·34	1·14	1·26	− 0·12	0·44	Umballa.		
23		2	1	1			2	1	N 18° E	3·9	3·6	2·8	+ 29	59	·380	3·5	6	3·27	+2·73	3·75	1·95	+1·80	4·66	3·71	+ 0·95	1·70	Rawalpindi	North Punjab.	31
																				0·49	·49	+0·09					VII.—Indus Valley and North-West Rajputana.		
20	3					1	3	3	N 55° W	1·9	2·1	4·2	− 50	66	·433	4·6	7	3·36	+ 3·64	1·99	1·84	+0·15	2·89	3·54	− 0·65	0·60	Peshawar	North Punjab	31
10	8	6	3	1	1	1			N 35° E	6·5	7·5			42	·331	3·0	2	1·30	+ 0·70	1·24	0·62	+0·62	1·57	1·16	+ 0·41	0·68	Khushab	West Punjab	
	4	9	5	4	3	2	2	1	N 68° E	7·4	6·4			41	·311	3·2	1	0·70	+ 0·30	0·22	0·24	−0·02	0·22	0·75	− 0·53	0·18	Montgomery.		
13	4	5		2			1	5	N 2° E	2·8	3·0	2·4	+ 25	67	·504	3·9	3	1·64	+ 1·36	0·73	0·77	−0·04	1·24	1·40	− 0·16	0·36	D. I. Khan.		
12	2	9		3			1	3	N 32° E	2·0	2·5	2·5	0	50	·404	3·2	2	0·36	+ 1·64	0·39	0·07	+0·32	0·49	0·35	+ 0·04	0·22	Mooltan.		
5	1	3	15	1		1	1	3	N 75° E	4·0	4·2	3·9	+ 8	41	·434	2·0	0	0·27	− 0·27	0·08	0·20	−0·12	0·12	0·34	− 0·22	0·04	Jacobabad	Sind.	47
8	8				2	11	1		S 79° W	4·9†	5·1†	10·2	− 50	44	·469	0·5	0	0	0	0·03	0·04	−0·01	0·03	0·18	− 0·15	0·03	Hyderabad.		
5	1	4	2		1	5	11	1	W	8·8	11·0	14·0	− 21	66	·716	1·4	0	0·45	− 0·45	0	0·33	−0·33	0	0·56	− 0·56	0	Kurrachee.		
	3	9	6	3	3	2	4		N 73° E	6·9‡		4·7	+ 47	46	·478	2·4	0			0	0·17	−0·17	0	0·37	− 0·37	0	Bikaner	West Rajputana	51
1		3	6	4	5	8	2	1	S 15° E	7·7§	8·8§	4·5	+ 96	42	·468	1·2	1			0·27	0·01	+0·26	0·27	0·08	+ 0·19	0·27	Pachpadra.		
3	4	6	3	1	1	7	4	1	N 37° W	10·3§	9·3§			38	·401	1·1	2			0·41	0·06	+0·35	0·41	0·09	+ 0·32	0·30	Jodhpur.		
																				0·33	0·06	+0·33					VIII.—East Rajputana Central India and Gujarat		
6	5	9	2		1	2	3	2	N 14° E	4·9		5·7	− 14	37	·355	2·1	1	0·30	+ 0·70	0·30	0·09	+0·21	0·30	0·48	− 0·18	0·25	Jaipur	East Rajputana.	50
	4	10	4	1		5	2	4	N 20° E	5·1				29	·327	0·9	3			2·40	0·02	+2·38	2·40	0·09	+ 2·31	2·13	Kotah.		
14		2	5	2	1		4	2	N 80° E	7·3		7·0	+ 4	43	·401	1·8	1	0·30	+ 0·70	0·41	0·08	+0·33	0·50	0·44	+ 0·06	0·29	Sambhar.		
3	1	5		6	2	7	5	1	S 27° W	6·6		5·0	+ 32	48	·479	2·1	2	0·18	+ 1·82	0·70	0·06	+0·64	0·70	0·23	+ 0·47	0·40	Ajmer.		
10	4	4	1	1	1	2	3	4	N 23° W	6·8	6·9			37	·410	0·8	0			0·08‖			0·08			0·04	Udaipur.		
	4	4	4	2	4	6	4	2	S 45° W	9·3		9·4	− 1	44	·477	0·6	1	0	+ 1·00	0·35	0·01	+0·34	0·35	0·06	+ 0·29	0·32	Deesa.		
	4		1			3	17	5	N 76° W	13·7		10·9	+ 26	65	·714	1·6	1			0·10	0·18	−0·08	0·10	0·27	− 0·17	0·10	Bhuj	Kathiawar and Cutch.	46
	1		2		4	12	8	3	S 58° W	7·3	7·8			65	·710	1·0	0			0			0			0	Jamnagar.		
1	3		2		2	1	18	3	N 83° W	10·5	10·4	11·1	− 6	69	·711	1·4	0	0·10	− 0·10	0	0·02	−0·02	0	0·03	− 0·03	0	Rajkot.		
	2			4	1	3	7	13	N 72° W	8·0	9·4	7·2	+ 31	80	·809	1·8	0			0	0	0	0	0	0	0	Veraval.		
	1			2		7	5	15	N 74° W	9·8†	10·1			50	·567	0·7	0			0			0			0	Bhavnagar Para.		
3	3	1	5		1	6	9	2	S 89° W	3·8	3·8	2·8	+ 36	39	·439	1·9	0	0	0	0·03	0·06	−0·03	0·03	0·33	− 0·30	0·03	Nowgong	Central India.	49
6	3	4	1	1		1	10	4	N 51° W	5·9		4·4	+ 34	43	·508	0·4	1	0	+ 1·00	0·10	0·06	+0·04	0·10	0·08	+ 0·02	0·10	Indore.		
2		8	4	2	1	8	4		S 30° E	8·7	7·8	10·3	− 24	54	·589	1·8	1	0·09	+ 0·91	0·20	0·09	+0·11	0·27	0·17	+ 0·10	0·20	Neemuch		
1	3	6		1	5	11	2	1	S 45° W	6·7	11·0	8·0	+ 38	66	·759	2·0		0	0	0	0·01	−0·01	0	0·01	− 0·01	0	Surat	Gujarat.	45
	5	4	3	1	1	7	1	7	N 35° W	3·3				53	·623	1·8	1			0·47	0	+0·47	0·47	0·07	+ 0·40	0·47	Ahmedabad‖		

† Mean of 29 days.

‡ Mean of 23 days.
§ Mean of 27 days.

‖ Winds for 29 days.

T

Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
22	N.-W. P. (West)	Agra	555	29·272	+·034	29·790	29·391	27th	29·132	21st	·259	80·6	97·6	−5·2	73·9	+0·4	85·8	−2·4	23·7	108·0	22nd	63·9	9th
21	N.-W.P. (Central)	Jhansi	858	28·969	+·028	29·799	29·116	12th	28·876	21st	·240	85·2	101·1	−2·7	78·3	+2·4	89·7	−0·2	22·8	112·4	21st	65·6	9th
	IX.—Deccan				+·019								103·7	+0·9	76·3	+2·3	90·0	+1·6	27·4				
38	Bombay Deccan	Belgaum	2,539	27·375	+·015	29·827	27·423	1st	27·337	30th	·088	77·7	97·0	+0·6	67·4	+0·1	82·2	+0·4	29·6	99·8	17th & 18th	61·9	13th
		Sholapur	1,590	28·299	+·019	29·817	28·350	1st	28·247	17th	·103	86·0	105·2	0	77·3	+2·3	91·3	+1·2	27·9	109·2	20th & 21st.	70·5	2nd
		Poona	1,840	28·074	+·015	29·853	28·131	1st	28·026	17th	·105	80·0	103·3	+2·2	69·2	−0·6	86·3	+0·8	34·1	108·0	18th	63·4	10th
		Bijapur	1,946	27·962	+·029	29·827	28·013	1st	27·916	17th	·097	83·7	102·5	+2·5	75·8	+0·8	89·2	+1·7	26·7	107·2	18th	71·8	3 days
40	Khandesh	Malegaon	1,430	28·452	+·011	29·817	28·524	1st	28·397	25th	·127	86·7	105·6	+2·8	71·7	+0·7	88·7	+1·8	33·9	110·3	20th & 21st.	64·3	10th
		Ahmednagar	2,152	27·776	+·032	29·842	27·837	1st	27·711	25th	·126	83·8	102·0	+2·9	70·3	+0·3	86·2	+1·6	31·7	106·4	21st	61·5	9th
41	Berar	Akola	930	28·930	+·023	29·797	28·999	13th	28·874	24th & 25th	·125	88·2	107·7	+2·0	77·2	+3·2	92·5	+2·6	30·5	113·5	20th	63·8	30th
		Amraoti	1,215	28·649	+·032	29·802	28·720	13th	28·601	24th	·119	87·8	106·6	+1·3	78·8	+3·3	92·7	+2·3	27·8	112·5	20th & 21st.	71·8	30th
42	Central Provinces (West).	Khandwa	1,044	28·820	+·016	29·812	28·900	1st	28·747	25th	·153	87·1	105·4	+1·1	77·5	+3·2	91·5	+2·2	27·9	112·2	21st	67·1	30th
		Hoshangabad	1,006	28·851	+·022	29·811	28·940	12th	28·765	24th	·175	85·1	105·8	+0·9	76·3	+3·1	91·1	+2·0	29·5	113·0	22nd	69·2	3rd & 4th.
		Nagpur	1,025	28·819	+·016	29·787	28·914	13th	28·751	16th	·163	88·5	107·0	+1·3	78·7	+2·8	92·9	+2·1	28·3	113·6	21st	72·1	28th
43	Central Provinces (Central).	Chanda	634	29·232	+·016	29·801	29·296	13th	29·170	16th	·126	90·5	108·4	+1·3	82·0	+5·7	95·2	+3·5	26·4	113·7	23rd	73·3	29th
		Seoni	2,033	27·838	+·022	29·786	27·916	13th	27·766	16th	·150	84·7	101·9	+0·6	74·3	+2·6	88·1	+1·6	27·6	109·4	21st	66·0	30th
		Jubbulpore	1,327	28·506	?	29·783	28·602	12th	28·425	24th	·177	83·0	102·5	+0·7	73·1	+2·5	87·8	+1·6	29·4	110·0	22nd	66·7	30th
		Saugor	1,807	28·055	?	29·796	28·157	12th	27·974	24th	·183	84·4	100·3*	−1·6*	75·4	+3·0	87·1*	+0·7	24·9	107·9	21st	67·1	9th
49	Central India	Sutna	1,040	28·783	+·023	29·778	28·903	12th	28·669	24th	·234	85·2	100·6	−1·0	74·0	+3·0	87·3	+1·0	26·6	110·6	22nd	67·1	13th
44	Central Provinces (East).	Raipur	970	28·874	+·025	29·781	28·966	12th	28·786	16th	·180	88·9	103·8	−0·5	79·9	+3·1	91·9	+1·3	23·9	112·5	21st	72·6	12th
		Sambalpur	486	29·353	?	29·785	29·457	12th	29·266	16th	·191	87·1	105·2	+0·3?	79·7	+4·0?	92·4	+2·2?	25·5	112·1	23rd	72·2	14th
39	Hyderabad (North).	Indur										89·7	105·7		80·2		93·0		25·5	109·8	21st	76·2	27th
		Bidar	2,165	27·719		29·784	27·785	1st	27·660	5th	·125	85·8	99·8		74·7		87·3		25·1	103·0	21st	67·2	12th
	Hyderabad (South).	Gulbarga	1,502	28·389		29·822	28·447	1st	28·332	17th	·115	85·8	104·9		78·8		91·9		26·1	108·9	18th	70·3	13th
		Raichur	1,309	28·563	+·020	29·800	28·625	14th	28·512	29th	·113	87·2	103·0	+0·3	81·0	+1·6	92·0	+1·0	22·0	107·0	18th	70·1	28th
		Hyderabad (Dn.)	1,690	28·201	−·002	29·816	28·255	1st	28·152	29th	·103	85·6	102·3	+0·1	78·8	+3·5	90·5	+1·8	23·7	106·9	21st & 23rd.	68·2	9th
		Secunderabad	1,787	28·110	+·007	29·824	28·159	1st	28·064	29th	·095	84·3	103·0	+0·8	78·0	+2·9	90·5	+1·9	25·0	108·3	21st & 23rd.	67·5	9th
		Hanumkonda		28·994			29·057	10th	28·927	24th	·130	83·2	103·9		78·6		91·3		25·3	108·2	17th	69·3	8th
	X.—West Coast				+·021								89·4	−0·7	78·5	+0·1	84·0	−0·3	10·9				
37	Konkan	Bombay	37	29·888	+·021	29·865	29·961	1st	29·830	25th	·131	83·3	88·3	+0·1	77·8	+0·5	83·0	+0·3	10·5	90·5	25th	74·5	4 days
		Ratnagiri	110	29·805	+·029	29·853	29·854	1st	29·755	17th	·099	81·6	88·6	−1·3	77·0	+0·2	82·8	−0·6	11·6	91·4	23rd	71·9	3rd
		Mormugao	60	29·848?	+·008	29·842?	29·916	1st	29·805	25th	·111	82·5	87·6	−2·8	78·9	−1·3	83·3	−2·1	8·7	91·5	20th	75·4	4th & 10th.
		Goa	199	29·716	+·023	29·851	29·757	1st	29·674	25th	·083	81·7	87·3	−2·1	78·7	−0·3	83·0	−1·2	8·6	90·5	22nd	75·0	4th & 5th.
		Karwar	44	29·877	+·021	29·853	29·930	14th	29·833	17th	·097	80·6	88·6	−1·2	77·2	−0·6	82·9	−0·9	11·4	91·3	22nd	72·5	5th
33	Malabar	Cochin	11	29·917	+·014	29·855	29·963	1st	29·862	17th	·101	84·0	92·9	+1·8	78·9	+0·6	85·9	+1·2	14·0	95·5	5days	73·7	24th & 25th.
		Calicut	27	29·891?	+·007	29·847?	29·937	7th	29·840	17th	·097	83·7	91·1	−0·2	79·0	+1·2	85·1	+0·5	12·1	94·9	3rd	73·5	25th
		Mangalore	65	29·863	+·021	29·860	29·907	1st	29·824	17th	·083	84·3	90·7	−0·1	79·6	+0·8	85·2	+0·4	11·1	92·8	19th & 20th.	75·4	13th
		Trivandrum	198	29·707	+·043	29·835	29·752	6th	29·629	29th	·123	82·7	89·2	+1·6	79·5	?	84·4	?	9·7	91·0	3 days	74·5	24th
	XI.—South India				+·015								96·9	+0·1	76·7	+0·9	86·8	+0·6	20·2				
57	Madras (South)	Pamban	37	29·874		29·837	29·952	2nd	29·811	29th	·141	85·2	91·7		74·7		83·2		17·0	94·3	19th	70·7	16th
		Tinnevelly	168	29·742	+·024	29·840	29·805	1st	29·672	29th	·133	85·6	100·1	+1·8	79·2	+0·3	89·7	+1·1	20·9	104·5	9th & 17th.	75·9	25th & 26th.
		Madura	447	29·459	+·010	29·840	29·525	1st	29·371	29th	·154	85·1	99·4	−0·7	77·9	+1·7	88·7	+0·5	21·5	103·5	16th	71·5	23rd
		Periyakulam		28·973			29·037	1st	28·894	29th	·143	83·2	98·6		74·7‡		86·6‡		23·9	103·0	22nd	70·6	10th

* Mean of 27 days. ‡ Mean of 29 days.

I—*continued.*

Stations in India, Burma, etc., in April, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 30th April 1900.	Normal rainfall for period, 1st March to 30th April.	Variation from normal of period, 1st March to 30th April.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
4		5		3		11		7	S 79° W	5·3	5·0	4·7	+ 7	45	·445	2·1	2	0·55	+1·45	0·62	0·14	+0·48	0·63	0·45	+0·18	0·38	Agra	N.-W. P. (West).	22
7	7	1	1	1	11		1	1	S 12° E	4·0		4·2	−5	31	·258	0·8	1	0·55	+0·45	0·19	0·13	+0·06	0·19	0·48	−0·29	0·10	Jhansi	N.-W.P. (Central).	21
																				0·58	0·43	+0·13						IX.—Deccan.	
6	1	1	1	3	4	5	5	4	S 56° W	13·2		13·1	+1	53	·500	3·2	5	3·36	+1·64	1·65	1·72	−0·07	1·65	2·07	−0·42	0·75	Belgaum	Bombay Deccan.	38
1	3	3	2	4	1	1	3	12	N 30° W	10·0	7·2	8·2	−12	34	·415	2·1	2	1·20	+0·80	0·40	0·57	−0·17	1·07	0·91	+0·16	0·29	Sholapur.		
2				2		6	12	8	W	12·4	14·0	9·9	+41	40	·408	1·2	0	1·09	−1·09	0	0·54	−0·54	0·01	0·59	−0·58	0	Poona.		
			1	2		3	14	10	S 81° W	5·2	5·1			50	·572	2·7	3	1·80	+1·20	1·19	0·58	+0·61	1·21	0·88	+0·33	0·67	Bijapur.		
	1	2				2	18	7	N 75° W	8·5	9·8	7·7	+27	32	·400	0·4	0	0·18	−0·18	0·05	0·10	−0·05	0·05	0·13	−0·08	0·05	Malegaon	Khandesh.	40
1	8	5	1	2		1	1	11	N 11° W	8·8	10·7			46	·532	0·6	0			0·03	0·21	−0·18	0·03	0·57	−0·54	0·03	Ahmednagar.		
2		2	1		1	1	15	8	N 75° W	7·1	6·7	5·4	+24	34	·437	2·1	0	0·36	−0·36	0·02	0·16	−0·14	0·02	0·71	−0·69	0·02	Akola	Berar.	41
	3	4	4	1		7	8	3	N 73° W	7·0	6·2	4·4	+41	31	·401	2·5	0	0·41	−0·41	0·09	0·25	−0·16	0·15	0·65	−0·50	0·09	Amraoti.		
1	1	2	2		3		11	10	N 66° W	9·0		5·6	+61	28	·363	1·1	0	0·18	−0·18	0	0·17	−0·17	0	0·30	−0·30	0	Khandwa	Central Provinces (West).	42
		8		3		11		8	N 77° W	5·4†	5·5†	2·9	+90	56	·670	0·8	0	0·09	−0·09	0·04	0·16	−0·12	0·04	0·39	−0·35	0·04	Hoshangabad		
13	2	2	1	1	2	1	3	5	N 50° W	7·2		6·7	+7	31	·398	3·9	0	0·82	−0·82	0·12	0·34	−0·22	0·12	0·95	−0·83	0·06	Nagpur.		
15		2	1	5	6	1			S 31° E	3·1		3·8	−18	41	·589	2·7	2			0·53	0·38	+0·15	0·63	1·87	−1·24	0·37	Chanda	Central Provinces (Central)	43
	3	5	3	6	2	4	1	6	N 57° E	2·3		3·8	−39	31	·248	3·1	2	0·45	+1·55	0·39	0·35	+0·04	0·43	1·05	−0·62	0·29	Seoni.		
6	3	2	1	2	5	3	4	4	S 76° W	3·9		3·5	+11	34	·383	1·7	1	0·27	+0·73	0·61	0·18	+0·43	0·61	0·69	−0·08	0·61	Jubbulpore.		
	2	6	5	4	2	5	5	1	S 63° E	2·7	3·1	3·7	−16	41	·479	1·4	0	0·09	−0·09	0·10	0·10	0	0·10	0·36	−0·26	0·07	Saugor.		
3	6	4			4	1	3	9	N 35° W	6·3	6·7	6·8	−1	25	·288	0·8	0	0·27	−0·27	0·02	0·12	−0·10	0·02	0·62	−0·60	0·02	Sutna	Central India.	49
5	2	4	1	1	4	10	1	2	S 42° W	7·9	7·3	5·9	+24	35	·463	0·9	1	1·00	0	0·37	0·47	−0·10	0·69	1·28	−0·59	0·28	Raipur	Central Provinces (East).	44
	5	4	2	2	5	6	4	2	S 67° W	4·8	4·7	2·6	+81	45	·571	3·3	3			0·94	0·51	+0·43	1·06	1·71	−0·65	0·51	Sambalpur.		
8	2			2	5	7	3	3	S 52° W	8·6	8·3			57	·797	2·8	1			0·24	0·31	−0·07	0·24	0·58	−0·34	0·24	Indur.	Hyderabad (North).	39
	3			1	1	16	4	5	S 69° W	6·1	7·3			55	·666	1·0	3			1·88	0·83	+1·05	2·89	1·17	+1·72	1·25	Bidar.		
11	1	6	3	1	1	4	2	1	N 62° E	10·0	9·6			52	·634	1·9	4			1·44	0·71	+0·73	1·44	0·92	+0·52	0·60	Gulbarga	Hyderabad (South).	53
7	1		3	5		9	2	3	S 31° W	7·5	7·4			56	·725	2·5	1			0·70	0·53	+0·17	0·74	0·94	−0·20	0·63	Raichur.		
17		1	3	2	1	1	3	2	S	4·4	4·3			49	·594	2·2	2			2·17	0·67	+1·50	2·43	1·42	+1·01	1·84	Hyderabad (Dn.).		
3			4	8		6		9	S 15° W	5·6		5·3	+6	52	·608	2·3	2			0·84	0·67	+0·17	1·50	1·42	+0·08	0·50	Secunderabad		
1	1		1	22	2	2	1		S 38° E	11·0	9·4			65	·733	4·0	1			0·76			0·76			0·70	Hanumkonda		
																				2·53	1·57	+0·96						X.—West Coast.	
	9	5	2	3	5	3		3	N 33° E	8·9		11·3		76	·822	3·8	0	0	0	0	0·01	−0·01	0	0·04	−0·04	0	Bombay	Konkan.	37
8	6	2		3	1	3		7	N 26° W	5·7	5·6	11·1	−50	74	·795	3·0	0	0·09	−0·09	0	0·07	−0·07	1·25	0·08	+1·17	0	Ratnagiri.		
9	5	1	4	1	2	1		6	N 5° E	8·6§				77	·862	3·9	0			0·01	0·29	−0·28	0·01	0·29	−0·28	0·01	Mormugao.¶		
2	2	7	10	1	1	2	2	3	N 60° E	6·7				81	·888	5·0	0			0	0·07	−0·07	0	0·07	−0·07	0	Goa.		
2	19	2			1	1	5		N 13° W	5·4				77	·793	3·2	0	0·36	−0·36	0	0·41	−0·41	0	0·41	−0·41	0	Karwar.		
2	16	9						2	N 11° E	7·1				76	·897	4·2	7	5·55	+1·45	13·84	4·37	+9·47	14·79	6·81	+7·98	5·07	Cochin	Malabar.	33
9	7	2	2					10	N 13° W	7·3	9·2			75	·860	5·1	7	3·13	+3·87	6·02	3·17	+2·85	6·02	3·69	+2·33	1·90	Calicut.		
16	3	1	2	2	1			5	N 7° E	2·8		3·7	−24	72	·847	4·9	1	1·00	0	0·27	1·13	−0·86	0·27	1·19	−0·92	0·23	Mangalore.		
8	13	1					2	6	N 18° W	6·2				75	·844	3·9	7			2·61	4·58	−1·97	2·82	6·15	−3·33	1·00	Trivandrum.		
																				2·79	1·18	+1·68						XI.—South India.	
	1		4	17		3	1	4	N 74° E	8·3	8·8			70	·850	3·0	6	1·30	+4·70	4·62	4·13	+0·49	4·89	4·92	−0·03	1·43	Pamban	Madras (South)	57
	5	4		3	2	3	4	9	N 43° W	5·2	5·0			66	·819	3·6	3	3·40	−0·40	2·14	1·89	+0·25	2·32	3·30	−0·98	1·45	Tinnevelly.		
12	3	6	6	2				1	N 59° E	1·8	1·8	3·6	−50	71	·857	4·6	5	1·82	+3·18	5·68	1·88	+3·80	5·68	2·49	+3·19	2·57	Madura.		
10	2	2	6	1	4	2	2	1	S 63° E	2·6	2·8			69	·780	2·7	6			4·17			4·27			1·30	Periyakulam.		

† Mean of 22 days. § Mean of 25 days. ¶ Winds for 29 days.

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Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
34	Madras, (South Central).	Salem	940	28·990	+·002	29·865	29·043	1st	28·929	29th	·114	84·0	100·8	−0·3	77·8	+2·2	89·3	+1·0	23·0	104·9	17th	72·0	29th
		Coimbatore	1,348	28·569	+·013	29·857	28·612	1st	28·515	29th	·097	81·1	98·3	+0·2	74·6	+1·0	86·5	+0·6	23·7	101·9	5 days	70·8	25th
35	Coorg	Mercara	3,781	26·236	+·009		26·286	14th	26·191	29th & 30th.	·095	71·0	84·1	−0·4	65·3	+1·2	74·7	+0·4	18·8	90·5	22nd	60·7	10th
36	Mysore	Chitaldroog	2,405	27·524	?	29·826	27·574	14th	27·483	29th	·091	80·7	98·3	+1·7	73·8	+1·8	86·1	+1·8	24·5	102·2	18th	67·9	27th
		Bangalore	3,021	26·947	+·001	29·839	26·984	1st	26·896	24th	·088	77·2	93·9	+0·7	70·9	+1·7	82·4	+1·2	23·0	97·8	22nd	66·3	28th
		Hassan	3,091	26·887		29·859	26·933	14th	26·847	17th	·086	76·9	93·4		67·8		80·6		25·6	97·3	10th	63·9	29th
		Mysore	2,518	27·439	+·015	29·860	27·486	14th	27·389	24th	·097	77·7	95·7	+1·5	71·0	+0·9	83·4	+1·2	24·7	99·1	18th & 19th.	64·0	14th
56	Madras, East Coast, South.	Negapatam	31	29·885	+·015	29·845	29·959	1st	29·797	29th	·162	84·9	92·6	0	80·2	+1·4	86·4	+0·7	12·4	97·0	22nd	72·9	29th
		Cuddalore	12	29·897	+·018	29·838	29·960	1st	29·821	29th	·139	84·2	92·1	−0·8	76·9	−0·2	84·5	−0·5	15·2	97·3	22nd	73·5	3 days
		Trichinopoly	255	29·651	+·004	29·838	29·713	1st	29·585	29th	·128	84·5	101·0	−0·1	78·6	+1·3	89·8	+0·6	22·4	105·7	6th	70·9	12th
		Madras	22	29·889	+·012	29·842	29·955	1st	29·819	29th	·136	84·4	91·9	−1·0	77·6	+0·4	84·8	−0·3	14·3	96·0	22nd	74·5	3 days
		Vellore†	707	29·188		29·834	29·258	19th	29·135	29th	·123	82·4	99·3		77·9		88·6		21·4	105·8	17th	72·7	15th
55	Madras, East Coast, Central.	Nellore	71	29·823	+·028	29·827	29·884	13th	29·763	24th	·121	85·1	99·1	−2·0	77·8	+0·4	88·5	−0·8	21·3	105·3	22nd	74·6	14th.
		Masulipatam	15	29·893	+·029	29·843	29·937	1st	29·833	29th	·104	5·2	93·8	−1·1	78·7	+1·4	86·2	+0·2	15·1	98·2	17th & 22nd.	73·1	12th
54	Madras, Central	Cuddapah	433	29·412	+·008	29·809	29·488	13th & 14th.	29·388	24th	·100	88·6	105·9	+0·8	80·4	−0·2	93·1	+0·3	25·5	110·3	18th	69·6	10th
		Kurnool	924	28·950	+·007	29·805	28·995	13th & 14th.	28·908	17th	·087	87·2	105·0	+0·4	80·8	+2·5	92·9	+1·5	24·2	108·3	3 days	63·3	10th
		Bellary	1,475	28·413	+·014	29·818	28·475	14th	28·359	30th	·116	85·5	103·6	−0·3	78·7	+1·7	91·1	+0·7	24·9	106·7	18th & 19th.	69·7	16th & 28th.
52	Madras, East Coast, North.	Cocanada	26	29·872	+·026	29·833	29·925	7th	29·805	29th	·120	84·1	96·7	+1·1	78·6	+0·3	87·7	+0·7	18·1	103·1	22nd	74·0	1st
		Waltair (Vizag).	226	29·658	+·020	29·826	29·730	12th	29·597	17th	·133	83·3	89·2	−0·5	78·1	−0·8	83·7	−0·7	11·1	92·4	22nd & 24th.	74·4	28th
		Gopalpur	21	29·844	+·030	29·805	29·936	26th	29·770	17th	·166	82·6	88·7	+1·1	77·9	+0·2	83·3	+0·7	10·8	91·8	5th & 27th.	75·6	13th
	XII.—Hill Stations.																						
48	Baluchistan	Shahrig		25·757			25·910	26th	25·590	9th	·320	69·6	81·5		52·5		67·0		29·0	97·0	30th	36·0	10th
		Pishin											73·1		45·3		59·2		27·8	87·0	30th	34·5	10th
		Quetta	5,502	24·643	+·022		24·772	26th & 27th.	24·466	9th	·306	58·7	71·9	−1·7	45·2	−1·2	58·6	−1·5	26·7	85·7	30th	34·3	26th
		Kalat										55·4	72·5		39·1		55·8		33·4	95·7	16th	24·2	25th
		Chaman	4,311	25·710	+·017		25·818	26th	25·599	9th	·219	65·1	76·9	−4·7	54·9	−2·4	65·9	−3·6	22·0	94·2	30th	40·1	9th
30	Punjab	Leh	11,503	19·681	−·033		19·918	27th	19·382	9th	·536	36·2	49·9	−7·2	28·1	−2·7	39·0	−5·0	21·8	59·6	30th	23·5	3 days
		Srinagar	5,204	24·899	−·008		25·094	26th	24·653	9th	·441	47·7	61·3	−7·5	42·9	−2·7	52·1	−5·1	18·4	75·3	30th	32·1	9th
		Skardu		22·858			23·092	27th	22·618	9th	·474	47·4	59·2		40·8		50·0		18·4	71·9	30th	30·1	10th & 11th
		Dras		20·783			21·020	27th	20·476	9th	·544	31·1	45·8		19·6		32·7		26·2	53·8	30th	10·1	19th
		Gilgit		25·105			25·392	27th	24·860	1st	·532	57·1	69·3		50·9		60·1		18·4	83·9	30th	36·1	10th
		Chitral		24·713			24·850	27th	24·600	6th & 9th	·250	54·4	67·5		45·0		56·3		22·5	88·7	29th	37·0	10th
		Killa Drosh										2·2	67·2		47·0		57·1		20·2	86·4	30th	37·2	10th
		Para Chinar	6,000									55·8	64·0		46·0		55·0		18·0	80·2	30th	35·3	10th
		Cherat		25·688	+·013		25·833	10th	25·457	9th	·376	57·8	67·7	−7·8	52·1	−6·1	59·9	−7·0	15·6	85·9	30th	40·0	9th & 10th.
		Murree	6,333	23·841	+·022		23·963	27th	23·566	9th	·397	53·3	59·8	−8·6	46·1	−5·9	53·0	−7·3	13·7	74·2	30th	28·5	10th
		Poo											55·0		36·9		46·0		18·1	63·9	2nd & 20th.	31·6	10th
		Simla	7,224	23·123	+·021		23·224	27th	22·973	9th	·251	53·4	61·4	−5·4	47·9	−4·6	54·7	−5·0	13·5	69·4	22nd	33·7	10th
25	N.-W. Provinces.	Chakrata	7,022	23·307	+·032		23·401	27th	23·199	9th	·202	53·1	64·1	−6·5	46·9	−5·1	55·5	−5·8	17·2	72·2	3rd	34·8	10th
		Mussooree	6,705	23·554	−·006		23·663	27th	23·423	9th	·240	54·7	65·1		49·7		57·4		15·4	74·3	30th	36·5	10th
		Ranikhet	6,069	24·109	+·026		24·209	27th	24·007	9th	·202	58·9	69·5	−4·9	53·6	−3·4	61·6	−4·2	15·9	78·5	21st	40·5	10th
		Muktesar		22·854			22·939	26th	22·747	9th	·192	55·0	66·0		47·9		57·0		18·1	75·5	21st	35·9	7th & 10th.

† Mean of 18 days.

I—*continued.*

Stations in India, Burma, etc., in April, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 30th April 1900.	Normal rainfall for period, 1st March to 30th April.	Variation from normal of period, 1st March to 30th April.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Districts.
14		8	2		1	2	3		N 45° E	4·9	4·4	5·0	−12	71	·830	4·4	10	2·27	+7·73	3·87	1·58	+2·29	3·87	2·46	+1·41	0·66	Salem	Madras (South Central).	31
		2	13	8	2	4	1		S 61° E	1·8		3·5	−49	80	·855	5·8	5	2·18	+2·82	3·01	1·71	+1·30	3·01	2·30	+0·71	1·27	Coimbatore.		
13	9						1	7	N 24° W	5·0	5·0	3·8	+32	80	·599	5·5	5	4·70	+0·30	2·43	2·72	−0·29	2·43	3·59	−1·16	0·80	Mercara	Coorg.	35
		1	1	1		14	12	1	S 66° W	7·2	6·3			62	·652	3·1	1			1·44	1·20	+0·24	1·44	1·42	+0·02	1·28	Chitaldroog	Mysore.	36
	2			2	8	10	4	4	S 47° W	7·7	6·7	3·5	+91	71	·669	0·3	3	1·18	+1·82	1·59	1·15	+0·44	1·59	1·69	−0·10	0·76	Bangalore.		
	2	3		1	3	5	8	8	N 78° W	3·5	3·1			67	·617	4·0	4			3·14	1·65	+1·49	3·14	2·16	+0·98	1·41	Hassan.		
		1		1	3	12	11	2	S 61° W	7·7	8·3			76	·714	6·3	5			2·65	2·26	+0·39	2·65	2·93	−0·28	0·95	Mysore.		
5				4	13	4	4		S 12° W	12·6	13·7	5·2	+163	76	·916	5·0	6	0·55	+5·45	3·97	0·35	+3·62	3·97	0·89	+3·08	1·12	Negapatam	Madras, East Coast, South.	56
	2	1	1	3	15	5	1	2	S 7° W	3·4	4·2			83	·977	2·8	6	0·60	+5·40	2·79	0·82	+1·97	2·79	1·19	+1·60	1·03	Cuddalore.		
18	1	2	2	3	1		3		S 74° E	4·0		4·0	0	74	·866	4·6	5	1·27	+3·73	5·59	1·53	+4·06	5·59	2·08	+3·51	1·85	Trichinopoly.		
	2			6	17	4		1	S 2° E	7·4		7·9	−6	78	·922	5·8	4	0·27	+3·73	3·09	0·62	+2·47	3·09	1·01	+2·08	1·83	Madras.		
9			2	5	1			1	S 51° E	0·2				80	·881	3·2	2			1·91*			1·91*			1·45	Vellore.‖		
				13	12	1	2	2	S 14° E	8·9				75	·904	6·6	2	0·30	+1·70	3·02	0·12	+2·90	3·02	0·33	+2·69	2·90	Nellore	Madras, East Coast, Central.	55
	1	2		6	16	4	1		S 5° E	8·7		8·8	−1	79	·961	6·7	3	0·27	+2·73	4·35	0·15	+4·20	4·35	0·27	+4·08	2·35	Masulipatam.		
		3	6	9		4		8	S 77° E					62	·834	2·9	3	0·70	+2·30	1·17	0·38	+0·79	1·17	0·44	+0·73	0·51	Cuddapah	Madras, Central	54
7			10	3	5	1	4		S 43° E					52	·665	3·9	2	1·33	+0·67	0·57	0·65	−0·08	0·57	1·19	−0·62	0·35	Kurnool.		
8	1	3		4		1	1	12	N 33° W	4·6	4·9	5·2	−6	48	·584	5·5	4	1·27	+2·73	2·27	0·58	+1·69	2·47	0·80	+1·67	0·68	Bellary.		
2	1	4	2	2	10	7	2		S 3° W	8·6	7·9			77	·909	6·8	3	0·50	+2·50	2·11	0·21	+1·90	2·11	0·74	+1·37	1·38	Cocanada.	Madras, East Coast, North.	52
3	1	1		2		20	3		S 47° W	16·0				71	·805	4·7	1			1·06			1·06			1·01	Waltair (Vizag).		
2	2			1	2	23			S 42° W	20·8	20·4	14·5	+41	87	·960	0·8	0	0·78	−0·78	0·05	0·67	−0·62	0·44	1·45	−1·01	0·03	Gopalpur.		
																											XII.—Hill Stations.		
5		1		1	1	6		16	N 67° W	8·5				33	·224	2·9	0			0·04	0·23	−0·19	1·69	1·38	+0·31	0·02	Shahrig	Baluchistan.	48
																	3			1·47	0·94	+0·53	2·62	2·55	+0·07	1·12	Pishin.		
23				2	2	1	2		S 18° W	2·3	2·4	4·8	−50	57	·281	3·4	4	3·55	+0·45	1·60	1·20	+0·40	2·21	2·90	−0·69	0·92	Quetta.		
					26		4		S 9° W					54	·237		2			0·72	0·51	+0·21	1·17	2·06	−0·89	0·30	Kalat.		
	2	1	2	6	11	6	1	1	S 4° E	7·3	7·7			69	·435	2·8	2			1·29	0·42	+0·87	1·73	1·81	−0·08	0·65	Chaman.		
	2	2	2	5	9	4	6		S 9° W	3·0				63	·136	5·3	3			1·19	0·11	+1·08	1·45	0·34	+1·11	0·42	Leh	Punjab.	30
10	3	1	1	3	2		2	8	N 39° W	4·4	4·7			90	·308	5·5	13			8·82	1·15	+7·67	11·96	3·65	+8·31	2·18	Srinagar.		
19		1	1		3	4	2		S 31° W	5·2	6·2			60	·196	5·2	2			1·12	3·88	−2·76	1·67	5·40	−3·73	0·70	Skardu.		
22			3	1	1	2		1	S 35° E	2·4	2·5			76	·132	5·2	12			4·21			8·36			1·30	Dras.		
24		1	1			2	2		S 68° W	2·4	2·4			52	·228	5·7‡	2			0·96	1·18	−0·22	0·96	1·47	−0·51	0·55	Gilgit.		
20	4			1	1	1			N	3·3	3·3			61	·246		5			1·61			4·10			0·49	Chitral.		
11	3		8				7		N 27° E					70	·275	4·9	7			2·44			5·05			0·68	Killa Drosh.		
	6	5	3	2	1	2	5	6	N 17° W	4·5				56	·237	5·0	11			3·74			7·04			1·00	Para Chinar.		
2	21				4		1	2	N 7° W	11·2	10·4			59	·266	4·5	8			4·88	2·30	+2·58	6·82	7·23	−0·41	1·14	Cherat.		
5	5	2	2	10	4			2	N 71° E	8·0	9·8	8·7	+13	54	·209	3·2	11	6·64	+4·36	6·73	3·40	+3·33	10·99	7·05	+3·94	1·41	Murree.		
																5·1	12			4·69	1·72	+2·97	6·93	5·83	+1·10	0·90	Poo.		
3	10	4		1	7	3			N 24° E	7·3		2·9	+152	45	·176	4·2	7	4·09	+2·91	2·83	1·90	+0·93	3·81	4·14	−0·33	1·31	Simla.		
1	6	14	1			2		6	N 15° E	10·7		6·1	+75	49	·191	3·2	9			3·79	1·48	+2·31	5·22	3·87	+1·35	1·45	Chakrata	North-Western Provinces.	45
	3	2	10	1			2	12	N 12° E					50	·208	3·6	7	1·10	+5·90	4·30	1·42	+2·88	4·76	4·00	+0·76	1·18	Mussooree.		
9	1	4	1	3	2	3	4	3	S 81° W	3·4	3·9	3·0	+30	50	·240	4·0	5	2·55	+2·45	3·77	1·11	+2·66	4·51	3·35	+1·16	1·52	Ranikhet.		
	1	2	2	8	1	1	1	14	N 31° W	7·1	6·5			58	·253	4·0	8			3·56			3·97			1·08	Muktesar.		

‖ Winds for 18 days. ‡ Mean of 29 days. *For last 18 days of April only.

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Abstract of Observations taken at 8 A.M. a

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
13	Bengal	Yatung	10,480?										54·7		33·3		44·0		21·4	61·1	23rd	26·9	19th
		Darjeeling	7,409	23·009	+·054		23·101	26th	22·900	17th	·201	55·5	64·1	+2·7	48·3	+0·8	56·2	+1·8	15·8	73·2	5th	42·6	10th
		Gantok	5,660																				
	Central India	Mount Abu	3,945	26·051	−·003		26·121	1st & 27th.	25·972	9th	·149	75·3	84·0	−1·6	68·8	+0·5	76·4	−0·6	15·2	92·2	20th & 21st.	55·4	9th
		Pachmarhi	3,528	26·455	+·013		26·519	13th	26·393	24th	·126	80·8	93·2	+0·9	70·7	+1·4	82·0	+1·2	22·5	99·7	21st	62·2	30th
	South India	Wellington	6,200	24·282	+·004		24·327	1st	24·228	29th	·099	67·6	78·5	+2·6	56·2	+0·2	67·4	+1·4	22·3	81·7	3 days.	52·2	20th
		Kodai Kanal	7,688	22·864			22·906	1st	22·816	25th	·090	60·8	68·3		53·5		60·9		14·8	73·2	3rd	51·2	10th
	XIII.—Extra India.																						
	Ceylon	Trincomalee	12	29·904	+·022	29·842	29·948	5th & 13th.	29·829	29th	·119	83·7	91·5	P	78·9	+1·6	85·2	P	12·6	94·5	17th	74·0	29th
		Colombo	40	29·891	+·006	29·856	29·950	6th	29·828	30th	·122	82·8	90·3	+1·5	76·1	+0·2	83·2	+0·9	14·2	93·5	3 days	73·0	15th & 24th.
	Persia	Meshed	3,104									55·8			48·3							35·0	9th
		Teheran	‡	‖25·977 †† 25·300			26·160	8th	25·720	10th & 11th.	·440	‡ 61·9	‡ 74·4		‡ 40·2		‡ 57·3		34·2	86·6	27th	23·3	20th
							25·460	8th & 23rd.	25·080	11th	·380												
		Ispahan		‖24·372			24·500	23rd & 27th.	24·150	10th	·350	62·1	76·5		49·3		62·9		27·2	85·6	28th	42·4	8th
				‖24·584			24·710	27th	24·350	10th	·360												
		Bushire	14	29·892	+·007	29·865	29·989	1st	29·765	9th	·224	76·6	84·7	+3·1	70·7	+4·6	77·7	+3·9	14·0	102·5	18th	62·7	1st
		Jask		29·852	−·027		29·980	27th	29·752	16th	·228	81·4	89·6	+2·4	75·2	+1·8	82·4	+2·1	14·4	101·3	19th	69·7	4th & 27th.
	Arabia	Muscat	20	29·859		29·826	29·968	27th	29·755	10th	·213	84·9	87·5		82·0		84·8		5·5	98·5	20th	72·9	1st
		Bussrah		29·942			30·111	19th	29·722	17th	·389		85·8		69·7		77·8		16·1	92·8	18th	64·5	1st
		Baghdad	221	29·826	−·023	30·025	30·003	19th	29·612	17th	·391	69·6	85·8	+4·9	61·7	+7·3	73·8	+6·1	24·1	95·1	25th	56·5	3 days
		Aden	94	29·850	+·005	29·876	29·934	1st	29·793	29th	·141	81·7	90·1	−0·5	77·4	−0·2	83·8	−0·4	12·7	99·3	25th	72·4	4th
		Perim	200	29·656		29·790	29·732	1st	29·575	25th	·157	83·4	89·3		77·5		83·4		11·8	92·4	22nd	76·3	15th
	Afghanistan	Kabul										49·4	66·6		41·0		53·8		25·6	86·1	30th	33·8	11th
	Central Asia	Kashgar		25·559			25·852	26th	25·242	3rd	·610	‡53·1	‡67·1		46·0‡		56·6‡		21·1	85·4	30th	36·4	8th
	Arabian Sea Islands.	Amini Divi	13	29·929		29·870	29·980	7th	29·866	13th	·114												
		Minicoy	7	29·883		29·815	29·923	14th	29·832	17th	·091	85·7	90·3							92·5	8th		
	Africa	Zanzibar	73	29·964	+·024	29·964	30·032	26th	29·904	4th	·128	79·9	85·3		77·9		81·7		7·4	89·0	11th	72·9	13th
		Dunga (Zanzibar).																					

NOTE.—When a query is inserted against any reading or in the variation returns for any station, the

* Mean of 28 days. † Mean of 24 days. ‡ Mean of 29 days

I—*concluded.*

Stations in India, Burma, etc., in April, 1900—concluded.

Wind Direction. Number of winds from: Calms	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variations.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 30th April 1900.	Normal rainfall for period, 1st March to 30th April.	Variation from normal of period, 1st March to 30th April.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Districts.
																	16			4·92			7·07			0·68	Yatung	Bengal.	13
8		4	4	3		5	5	1	S 8° W	11·4	10·6			68	·294	3·0*	5	8·46	−3·46	3·40	4·61	− 1·21	5·31	6·26	− 0·95	1·03	Darjeeling.		
																					10·33			15·38			Gantok.		
2	2	5		2	1	10	5	3	S 78° W	9·6	10·0	7·7	+30	36	·307	1·0	2	0·09	+ 1·91	1·04	0·06	+ 0·98	1·04	0·18	+ 0·86	0·89	Mount Abu.	Central India.	
13	3	1	1	2		2	2	6	N 41° W	6·0†	6·1†	5·3	+15	44	·461	2·3	1	0·45	+ 0·55	0·23	0·23	0	0·23	0·55	− 0·32	0·17	Pachmarhi.		
23	2	1	1	1	1	1			N 79° E	3·1		2·9	+ 7	64	·432	3·8	6	4·50	+ 1·50	2·94	2·78	+ 0·16	2·94	5·59	− 2·65	1·18	Wellington.	South India.	
	2	12	8					8	N 34° E	7·6				67	·349	4·3*	11			5·93			6·10			1·54	Kodai Kanal.		
																											XIII.—Extra India.		
8				2		20			S 39° W	2·1				83	·959	2·0	6			5·39	1·93	+ 3·46	5·39	3·33	+ 2·06	2·10	Trincomalee	Ceylon.	
			9	14	3	1	2	1	S 50° E	7·1		5·6	+27	85	·951	5·1	10			9·71	12·32	− 2·61	13·42	16·97	− 3·55	3·19	Colombo.		
														70	·312	4·1	6			2·19	1·93	+ 0·26	3·19	4·13	− 0·94	0·80	Meshed.	Persia.	
	2	9	6	6	2	1	1	2	N 78° E	3·1*	4·1*			46‡	·249‡	2·7‡	3			0·98	0·76	+ 0·22	1·37	3·79	− 2·42	0·48	Teheran.¶		
12	4					4	4	5	N 63° W	5·4‡	7·1‡			63	·352	3·1‡	0			0·08	1·15	− 1·07	0·10	2·36	− 2·26	0·08	Ispahan.¶		
	4	5	2	2		1	3	13	N 22° W	10·2	12·1	9·1	+33	59	·539	2·2	0			0	0·34	− 0·34	0·02	1·77	− 1·75	0	Bushire.		
4	2	1	10	2	1	2	3	5	N 60° E	10·0	11·6			74	·796	1·1	0			0	0·04	− 0·04	0	1·25	− 1·25	0	Jask.		
6	2		1	7	1	1	1	11	N 53° W	5·1	5·3			54	·635	1·4	0			0	0·05	− 0·05	0·65	1·14	− 0·49	0	Muscat.	Arabia.	
	19	1			6		1		N 1° W								0			0			0·12			0	Bussrah.		
6	11	2	1	1	2	1	1	5	N 9° W	3·2	4·2			56	·406	3·6	0			0	1·19	− 1·19	1·03	3·12	− 2·09	0	Baghdad.		
1		9	17	3					N 81° E	16·7*		14·8	+13	70	·763	1·3	0			0	0·66	− 0·66	0·03	1·82	− 1·79	0	Aden.		
			6	15	9				S 40° E	22·0	20·4			72	·827	1·4	0			0	0·03	− 0·03	1·16	0·16	+ 1·00	0	Perim.		
17	2	2	2				4	3	N 27° W					59	·204	4·2§	6			1·60	2·21	− 0·51	5·10	8·15	− 3·05	0·50	Kabul.	Afghanistan.	
13	3		5	1	5		1	1	S 63° E	9·4	8·5			38‡	·144‡	6·9‡	3			0·49	0·12	+ 0·37	0·69	0·37	+ 0·32	0·24	Kashgar¶.	Central Asia.	
1	10						5	14	N 37° W							4·2	0			0·01			0·01			0·01	Amini Devi.	Arabian Sea Islands.	
	14	1	2	1			2	10	N 16° W	4·9	5·2			68	·840	3·6	3			1·32			1·32			1·04	Minicoy.		
1				1	12	14	2		S 26° W	5·8	5·5			86	·884	6·5	13			14·70	11·84	+ 2·86	22·48	16·99	+5·49	5·73	Zanzibar.	Africa.	
																											Dunga (Zanzibar).‖		

that station are not utilized in calculating the provincial variations. § Mean of 26 days. ‖ Aneroid uncorrected. ¶ Winds for 29 days. †† Mountain barometer uncorrected.

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

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 daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature W Mean minimum.	Mean 10 hours.	Mean 16 hours.
Burma Coast and Bay Islands.	Port Blair		29·690	29·787	·103	29·832	+·033	29·823	93·9	79·8†	14·1	96·6	77·8	18·8	89·3	91·3	85·4†	+1·6	77·2	81·8	82
	Rangoon		·878	·734	·144	·810	+·013	·787	100·6	78·1	22·5	105·0	74·6	30·4	90·8	95·4	87·0	+2·3	75·3	78·4	79
	Diamond Island		·905	·796	·109	·843	+·021	·818	88·4	81·3	7·1	91·8	79·7	12·1	85·8	86·1	83·5	+1·6	76·3	78·8	79
	Cocos Island	111	·837**	·743††	·094	·783	+·056	·826††	93·6††	80·9**	12·7	95·0	77·8	17·2	89·1**	89·5††	85·5††	+3·2	76·0**	79·7**	79
	Akyab		·899	·788	·111	·841	+·011	·803	94·0	?	?	98·4	?	?	88·9	89·2	?	?	?	80·7	79
Bengal and Orissa.	Chittagong		·829	·709	·120	·763	+·018	·797	91·3	74·9	16·4	96·7	68·6	28·1	86·6	87·4	82·3	+1·8	73·0	79·3	79
	Calcutta (Alipore)		·840	·713	·127	·775	+·027	·741	96·3	76·4	19·9	103·6	69·0	34·6	89·0	93·0	85·6	+0·6	72·4	79·0	78
	Saugor Island		·847	·724	·123	781	+·028	·749	91·3	80·3	11·0	100·9	71·8	29·1	86·9	87·9	84·1	+0·6	76·2	80·9	80
	False Point		·861	·740	·121	·799	+·021	·761	89·5	78·5	11·0	95·3	73·1	22·2	87·0	86·5	82·5	+0·6	76·2	80·6	80
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·843	27·723	·120	·785	+·015	·691	98·3	73·5	24·8	107·0	66·4	40·6	89·7	93·8	85·2	+1·0	61·4	67·2	67
	Darbhanga		29·654	29·506	·148	·578	+·009	·695	97·0	72·2	24·8	101·8	67·2	34·6	87·1	96·0	84·2	+0·1	64·7	71·8	71
	Allahabad		·518	·382	·136	·445	+·026	·700	101·6	72·7	28·9	111·1	67·4	43·7	92·9	100·4	87·4	−0·3	61·0	68·2	68
Upper Sub-Himalayas.	Dehra Dun		27·622	27·524	·098	27·561	+·024	·732	86·7	60·4	26·3	96·0	50·8	45·2	77·7	83·3	73·3	−3·8	53·4	60·5	60
	Roorkee		28·936	28·830	·106	28·874	+·043	·718	93·6	64·8	28·8	103·7	55·0	48·7	84·8	91·3	79·2	−2·2	55·6	63·7	64
	Meerut		29·082	·973	·109	29·021	+·030	·715	94·8	67·4	27·4	104·7	59·0	45·7	85·6	91·8	86·9	−1·6	58·6	66·7	68
	Lahore		·142	29·046	·096	·089	+·051	·757	90·3	65·9	24·4	104·9	56·2	48·7	81·6	89·4	78·3	−1·3	57·5	64·5	65
	Lahore (New shed)								92·5	64·5	28·0	107·9	56·0	51·9	83·8	89·7	78·2		57·1	65·3	65
	Ludhiana		·008	28·911	·097	28·954	+·036	·729	91·7	66·7	25·0	105·0	57·2	47·8	83·3	88·7	79·0	−1·9	58·6	64·1	65
Indus Valley and N.-W. Rajputana.	Peshawar		28·726	·703	·093	·745	+·057	·852	81·0	57·5	23·5	99·0	49·0	50·0	73·0	78·6	69·1	−4·0	53·0	61·8	63
	Jacobabad		29·656	29·517	·139	29·581	+·032	·721	102·5	70·5	32·0	117·1	59·8	57·3	91·5	100·6	86·4	+0·4	58·2	69·4	73
	Kurrachee		·858	·753	·105	·804	+·012	·784	94·2	75·5	18·7	105·3	65·6	39·7	88·7	89·0	82·7	+3·0	68·7	75·2	76
E. Rajputana, Central India, and Gujarat.	Jaipur		28·441	28·321	·120	28·376	+·030	·737	98·3	72·7	25·6	110·4	62·1	48·3	88·6	95·6	85·4	+0·3	58·7	65·7	66
	Udaipur		27·960	27·841	·119	27·901		·728	97·6	73·8	23·8	106·0	63·0	43·0	90·2	95·2	85·1		61·9	68·3	70
	Deesa		29·407	29·265	·142	29·331	+·008	·738	103·7	75·7	28·0	113·1	67·4	45·7	92·3	102·2	90·1	+2·1	62·8§	69·5	68
	Jamnagar		·828	·714	·114	·771		·778	97·4	72·6	24·8	107·2	66·4	40·8	90·2	93·4	84·0		59·4	73·1	72
Deccan.	Belgaum		27·376	27·251	·125	27·316	+·008	·709	96·9	67·3	29·6	99·9	61·9	38·0	87·8	89·4	79·7	+0·5	63·3	66·3	71
	Sholapur		28·295	28·132	·163	28·212	+·009	·689	105·3	77·3	28·0	109·0	70·7	38·3	94·6	102·6	90·3	+1·4	63·1	68·6	70
	Poona		·067	27·934	·133	·006	+·017	·727	103·4	69·2	34·2	107·9	63·4	44·5	91·7	99·7	85·8	+0·9	60·9	65·9	67·4
	Akola		·930	28·770	·160	·845	+·012	·693	107·7	77·2	30·5	113·5	63·8	49·7	98·0	106·0	92·8	+2·3	65·3	71·7	72·9
	Buldana	2,132	27·767	27·632	·135	27·694	+·015	·693	102·1	77·3	24·8	107·2	71·6	35·6	91·1	99·7	89·9	+1·6	59·5	65·1	65
	Khandwa		28·829	28·675	·154	28·747	+·019	·711	105·6	77·5	28·1	112·2	67·1	45·1	95·3	104·4	92·3	+2·4	59·4	68·7	69·3
	Nagpur		·830	·670	·160	·745	+·024	·689	107·1	78·7	28·4	113·6	72·1	41·5	96·6	103·5	92·8	+2·3	62·2	70·4	72·2
	Do. (Sanitary Commr.'s Office).		·853	·713	·140	·778		·713	108·2	78·7	29·5	114·9	72·5	42·4	97·7	104·9	92·6		62·5	72·4†	73·9
	Hyderabad (Deccan).		·204	·065	·139	·132	+·026	·709	102·4	78·6	23·8	107·2	68·2	39·0	93·2	99·4	89·8	+1·7	69·4	72·6	73·2
West Coast.	Bombay		29·895	29·780	·115	29·836	+·026	·812	88·4	77·8	10·6	90·9	74·6	16·3	84·0	85·3	82·2	−0·4	72·0	76·9	77·6
	Karwar		·897	·784	·113	·838	+·028	·814	88·8	77·2	11·6	91·2	72·5	18·7	85·4	86·7	82·4	−0·6	74·1	75·9	76·9

† Mean of 28 days. ‡ Mean of 29 days. § Mean of 29¼ days. ‖ Mean of 27 days.

II.

66 Stations in India, Burma, etc., for April, 1900.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%						
·904†	·990	·985	·960	+·031	89†	72	67	76	− 1	4·0	5·1	4·6	+0·3		2	7	10	26	7	2	2	4	S. 59° E.	N. 89° E.	53	41	109	116			Port Blair	Burma Coast and Bay Islands.
·848	·807	·799	·818	+·034	88	56	49	64	− 2	1·6	2·2	1·9	−1·5		1	1	1	11	23	11	9	3	S. 15° W.	S. 25° W.	60	58	137	136			Rangoon	
·838	·895	·901	·878	+·027	78	72	72	74	− 2	2·6	2·5	2·6	−0·8	3	1			3	1		20	32	N. 63° W.	N. 60° W.	75	73	206*	187			Diamond Island,	
** ·833	** ·887	†† ·881	·867	+·020	** 79	** 65	†† 64	69	− 5	**2·3	††2·3	2·3	−0·8	4	7	7	1	3		1	15	9	N. 42° W.	N. 39° W.	44	39	†† 144	?	Nil	Nil	Cocos Island	
?	·939	·885	?	?	?	69	64	?	?	4·2	4·3	4·3	+1·1			4	17	8	1	6	18	6	S. 14° W.	S. 65° W.	7	37	63	96			Akyab	
·792	·907	·903	·867	+·051	91	72	70	78	+ 4	5·5	4·1	4·8	+0·7		1	2		4	11	30	4	8	S. 44° W.	S. 9° W.	63	44	183*	165			Chittagong	Bengal and Orissa.
·747	·860	·803	·804	+·013	82	63	53	66	− 2	3·9	3·9	3·9	+1·2		2		2	2	16	26	7	5	S. 40° W.	S. 7° W.	66	71	156	169			Calcutta (Alipore),	
·853	·974	·954	·927	−·008	82	76	73	77	− 2	6·1	4·9	5·5	+0·8		1			2	38	15	3	1	S. 15° W.	S. 14° W.	84	78	504	419			Saugor Island,	
·879	·959	·968	·935	+·030	90	75	76	80	− 3	4·9	5·0	5·0	+1·6					3	27	28	2		S. 22° W.	S. 31° W.	89	79	305*	341			False Point	
·398	·389	·333	·373	+·070	49	29	24	34	+ 6	4·9	5·9	5·4	+2·6	4	8			1	5	5	14	23	N. 65° W.	N. 74° W.	60	46	216*	216			Hazaribagh	Gangetic Plain and Chota Nagpur.
·517	·581	·463	·520	−·052	65	46	27	46	− 6	1·3	0·6	1·0	0		2	3	13	12	1	7	15	7	S. 13° W.	S. 46° E.	10	15	131	142			Darbhanga	
·386	·364	·286	·345	−·039	48	24	15	29	− 2	1·8	2·5‡	2·2	+0·8	1	6	4	6	1	1	4	20	17	N. 57° W.	N. 54° W.	16	35	146*	117			Allahabad	
·329	·314	·253	·299	−·023	63	35	25	41	+ 4	3·3	4·6	4·0	+1·2	3	6	6	4	8	2	7	18	6	N. 82° W.	N. 82° W.	22	28	59	54			Dehra Dun	Upper Sub-Himalayas.
·326	·314	·246	·295	−·031	54	28	19	34	0	2·1	2·9	2·5	+0·5	22	2	3	1	8	4	4	9	7	S. 68° W.	N. 72° W.	15	20	111	78			Roorkee	
·381	·412	·381	·391	+·005	58	36	27	40	+ 3	3·4	4·1	3·8	+1·8	18		4	3	5		3	18	9	N. 79° W.	N. 60° W.	28	45	?	60			Meerut	
·364	·382	·322	·356	−·028	58	37	25	40	+ 3	3·6	4·2	3·9	+1·5	7	11	3	6	6	5	1	13	8	N. 39° W.	N. 23° W.	18	27	78	77			Lahore	
·373	·381	·312	·355		62	35	24	40																							Lahore (New shed).	
·388	·346	·308	·347	−·065	61	32	26	40	− 3	3·5	4·5	4·0	+1·0	2	23	3	2	4	9		16	1	N. 35° W.	N. 54° W.	28	28	79*	54			Ludhiana	
·353	·422	·391	·389	−·021	74	55	44	58	+ 6	4·8	5·6	5·2	+0·8	34	6	6		1	1	1	8	3	N. 31° W.	N. 8° E.	18	25	45*	104			Peshawar	Indus Valley and N.-W. Rajputana.
·332	·430	·460	·407	+·044	45	30	24	33	− 1	1·4	2·0	1·7	−0·8	18		2	14	6	3	3	9	5	S. 48° E.	S. 65° E.	11	13	102*	100			Jacobabad	
·632	·706	·767	·702	−·030	70	54	57	60	−10	0·9	1·6	1·3	−0·4		1	4	2	1	5	21	24	2	S. 66° W.	S. 69° W.	63	81	264*	329			Kurrachee	
·321	·351	·307	·326	0	42	27	19	29	+ 1	2·0	2·0	2·0	−0·3	1	2	9	5	3	5	12	15	8	S. 84° W.	N. 52° W.	27	52	123	124			Jaipur	E. Rajputana, Central India, and Gujarat.
·411	·426	·431	·422		50	31	26	35		0·6	1·9	1·3		3	4	3	4	5	3	6	21	11	N. 82° W.		40		165				Udaipur	
·409	·423	·244	·359	0	47	30	13	30	+ 2	0·6	1·0	0·8	−0·9		8	3	2	2	3	14	22	6	N. 89° W.	S. 88° W.	51	57	225	228			Deesa	
·339	·591	·537	·489		42	43	36	40		0·4	0·4	0·4			4	1	1			16	31	6	S. 87° W.		75		453*				Jamnagar¶	
·533	·380	·554	·489	−·031	80	29	41	50	− 1	2·7	3·5	3·1	+0·3		9	6	1	2	3	14	18	7	N. 82° W.	N. 77° W.	44	35	315‡	320			Belgaum	Deccan.
·406	·379	·353	·379	−·020	44	21	17	28	− 2	1·9	6·0	4·0	+0·6		5	8	2	13		5	4	23	N. 26° W.	N. 5° E.	26	13	174*	213			Sholapur	
·438	·318	·272	·343	−·031	61	21	14	32	+ 1	1·5	2·5	2·0	−0·5				1	1	1	6	30	21	N. 79° W.	N. 62° W.	80	55	338*	234			Poona	
·473	·428	·369	·424	+·123	50	24	16	30	+ 7	2·2	3·5	2·9	+0·9	7	5	6	3	2		4	12	21	N. 47° W.	N. 48° W.	48	58	160*	139			Akola	
·292	·296	·212	·268	−·033	31	21	11	21	− 3	1·2	2·0	1·6	−0·7	1	12	2	1	1	1	1	20	21	N. 51° W.	N. 33° W.	69	58	279*	212	Nil	Nil	Buldana	
·291	·368	·278	·312	−·027	30	23	13	22	− 4	1·3	3·2	2·3	+0·4	2	6	6	2	1	2	1	15	25	N. 47° W.	N. 49° W.	60	62	213	148			Khandwa	
·357	·418	·401	·392	+·007	36	25	19	27	− 1	3·2	6·2	4·7	+1·7	3	8	5	4	3	7	10	10	9	N. 83° W.	N. 65° W.	23	22	171§	161			Nagpur	
·370	·478†	·446‖	·431		38	28†	20‖	29		1·6	4·0	2·8		1	1	7		12		10		29	N. 53° W.		30		64*				Do. (Sanitary Commr.'s Office).	
·606	·549	·493	·549	+·013	63	36	27	42	− 2	1·9	5·3	3·6	+1·3	32			4	9	4	3	7	1	S. 3° E.	N. 58° W.	20	2	101*	113			Hyderabad (Deccan).	
·715	·833	·819	·799	−·017	74	71	70	72	− 2	1·9	1·7	1·8	−0·4		3		1		2	10	24	20	N. 80° W.	N. 57° W.	75	55	212	261			Bombay	West Coast.
·804	·769	·792	·788	−·043	86	63	62	70	− 3	1·6	1·8	1·7	−0·8							8	21	31	N. 71° W.	N. 84° W.	85	76	132	98			Karwar	

¶ Wind variable 1. ** Mean of 24 days. †† Mean of 23 days. * Corrected.

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

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 daily pressure.	Variation from normal.	Mean reduced to S.L. 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 daily.	Variation from normal.	Temperature, W Mean minimum.	Mean 10 hours.	Mean 16 hours.
South India.	Periyakulam		28·977	28·826	·151	28·902			98·0	74·6†	23·4	103·0	70·6	32·4	88·4	92·6	84·9†		70·7	76·4	76
	Salem		·991	·830	·161	·920	+·003	29·776	100·6	77·8	22·8	105·1	71·8	33·3	89·8	95·2	86·7	+0·6	73·0	77·6	76
	Chitaldroog		27·520	27·380	140	27·449	+·010	·706	98·2	73·8	24·5	102·1	67·8	34·3	87·8	96·1	85·5	+2·3	66·0	72·5	71
	Bangalore		26·954	26·820	·134	26·891	+·011	·730	94·0	70·9	23·1	98·0	66·5	31·5	82·8	91·8	81·9	+1·8	65·0	71·1	69
	Hassan		·891	·772	·119	·836	+·017	·746	93·3	67·8	25·5	97·3	63·9	33·4	83·7	89·5	79·6	+2·0	65·0	69·7	68
	Mysore		27·429	27·292	·147	27·366	+·013	·739	95·6	71·0	24·6	99·1	64·2	34·9	84·2	93·1	82·7	+1·9	67·9	73·2	72
	Madras		29·895	29·774	·132	29·841	+·022	·792	92·0	77·5	14·5	95·7	74·3	21·4	88·8	87·2	83·8	-0·9		79·6	80
	Bellary		28·417	28·264	·153	28·340	+·005	·714	103·4	78·7	24·7	106·6	69·8	36·8	92·1	99·8	89·9	+0·7	68·1	72·1	73
	Waltair		29·676	29·565	·111	29·621		·786	89·1	78·1	11·0	92·6	74·2	18·4	85·8	84·6	82·5		73·7	77·7	78
Hill Stations, Baluchistan.	Quetta		24·658	24·586	·072	24·614	+·022		72·4	45·3	27·1	85·7	34·5	51·2	65·1	69·6	58·2	−1·3	40·8	52·0	53
Hill Stations, Northern India.	Leh		19·690	19·616	·074	19·659	−·028		50·2	28·3	21·9	63·6	23·4	40·2	42·1	46·3	39·6	−3·4	24·5†	33·9	36
	Srinagar		24·917	24·838	·079	24·870	+·016		61·8	42·9	18·9	79·8	32·1	47·7	52·2	59·7	51·8	−5·5	41·9	49·9	57
	Kailang	10,087	20·966	20·908	·058	20·949	P		46·4	28·5	17·9	56·7	21·4	35·3	38·1	40·5	35·8	−4·3	26·8	33·3	34
	Simla (Ridge)		23·149	23·095	·054	23·114	+·026		61·5	47·7	13·8	71·5	33·7	37·8	56·4	58·9	53·8	−6·0	40·3	45·6	46
	Chakrata		·336	·284	·052	·302	+·031		64·5	46·9	17·6	72·2	34·8	37·4	58·7	60·3	54·6	−5·1	40·7	47·5	46
	Ranikhet		24·130	24·057	·073	24·083	+·020		69·7	53·6	16·1	79·2	40·3	38·9	64·0	66·6	60·8	−4·1	45·5	50·6	51
	Muktesar		22·876	22·822	·054	22·849			66·1	47·9	18·2	75·7	35·9	39·8	59·6	62·0	56·0		41·9	50·4	51
	Katmandu	4,388	25·537	25·444	·093	25·489	P		85·3	51·8	33·5	92·4	47·3	45·1	74·9	79·7	67·2	+0·7	49·4	59·3	59
	Darjeeling		23·023	22·940	·083	22·989	+·033		64·3	48·3	16·0	73·2	42·6	30·6	58·0	60·6	55·4	+1·5	44·8	51·7	54
Hill Stations, Central India.	Mount Abu		26·071	25·984	·087	26·022	−·006		84·3	68·8	15·5	92·4	55·4	37·0	78·6	82·1	76·0	−0·5	54·3	59·5	60
	Pachmarhi		·472	26·362	·110	·412	+·015		93·2	70·7	22·5	99·7	62·0	37·7	85·8	91·9	83·1	+1·4	58·6	68·1	70
	Chikalda	3,642	·359	·249	·110	·299	+·015		93·8	73·3	20·5	99·4	66·9	32·5	86·0	92·1	84·6	+1·4	59·6	66·8	69
Hill Stations, S. India.	Wellington		24·293	24·213	·080	24·253	+·014		78·5	56·4	22·1	81·9	52·2	29·7	73·4	72·4	65·9	+1·1	53·9	61·0	61
	Kodaikanal		22·883	22·814	·069	22·846			68·2	53·5	14·7	73·2	51·2	22·0	64·8	61·7	59·3		49·0	56·3	56
Extra India.	Aden		29·865	29·746	·119	29·797	+·013	·821	90·1	77·4	12·7	99·3	72·4	26·9	85·1	88·9	83·6	+0·8	70·3	75·1	73
	Perim		·666	·548	·118	·598	−·032	·730	89·7	77·5	12·2	92·4	76·3	16·1	86·5	86·9	82·9	−0·2	75·0	77·7	77
	Minicoy		·890	·802	·088	·839		·771	90·3			92·5			87·4	87·9				78·7	78
	Zanzibar		·983	·866	·117	·925	+·040	·924	85·5	77·9	7·6	89·0	72·9	16·1	81·7	84·6	81·5	+1·0	74·6	77·8	78
	Port Victoria (Seychelles)	15	·958	·862	·096	·910	+·004	·849	85·7	78·1	7·6	88·2	76·1	12·1	84·4	84·8	81·7	+1·0	75·3	78·2	78
	Mauritius (Pamplemousses)	181				·819	−0·18	·946				88·6	63·1	25·5			76·4	+0·3			

† Mean of 29 days.

‡ Mean of 27½ days.

II—*concluded.*

66 Stations in India, Burma, etc., for April, 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.											Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Number of winds from																		
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
																									%	%						
·702†	·747	·636	·695		81†	56	46	61		3·3	5·5	4·4		6		4	15	7	10	4	12	1	S. 27° E.		27		68*				Periyakulam	South India.
·746	·792	·684	·741	+·010	79	57	43	60	+ 1	4·3	6·1	5·2	+1·5	16		10	7	3	9	10	4	1	S. 23° E.	S	18	30	106*	110			Salem	
·543	·607	·473	·541	+·061	65	47	28	47	+ 2	3·0	5·9	4·5	+1·0		6	7	10	3	2	5	12	15	N. 33° W.	N. 32° W.	28	16	119*	178			Chitaldroog	
·550	·616	·457	·541	+·005	73	54	32	53	0	3·0	4·5	3·8	+0·5	1	4	12	12	5	5	9	6	6	N. 77° E.	S. 33° W.	13	40	161*	101			Bangalore	
·588	565	·469	·541	−·018	87	50	35	57	− 4	3·6	7·2	5·4	+0·2		4	16	10	3	3	8	8	8	N. 22° E.	N. 21° E.	18	12	74*	95			Hassan	
·646	·687	·566	·633	+·065	85	58	38	60	+ 2	5·6	6·9	6·3	+1·8	1	6	9	10	6	6	9	9	4	S. 57° E.	S. 79° E.	5	2	199*	189			Mysore	
	·888	·960	·927	+·057		66	72	80	+ 6	5·2	4·0	4·6	+1·6		1	5	3	31	17	2		1	S. 37° E.	S. 37° E.	73	83	175	185			Madras	
·558	·540	·496	·531	+·009	57	36	26	40	+ 1	4·6	7·8	6·2	+2·8	8	2	4	9	9	3	5	6	14	N. 34° W.	S. 63° W.	3	8	118*	127			Bellary	
·773	·842	·902	·839		80	68	76	75		3·8	3·4	3·6				3	3	3	2	49			S. 37° W.		77		164				Waltair	
·217	·259	·253	·243	−·015	70	42	36	49	− 1	3·5	4·9	4·2	+1·0	19	2			2	3	4	21	9	N. 88° W.	N. 81° W.	48	34	59*	92			Quetta	Hill Station, Baluchistan.
·098†	·132	·146	·125	+·015	63†	50	48	54	+10	5·7	7·8	6·8	+0·6		3	9	6	3	14	13	8	4	S. 23° W.	S. 62° W.	23	25	75	70			Leh	Northern India.
·259	·312	·465	·355	+·027	92	85	86	88	+17	5·6	6·0	5·8	+1·5	17	7	1		2	2		10	21	N. 50° W.	N. 5° W.	50	12	123*	96			Srinagar	
·133	·152	·159	·148	−·006	85	66	65	72	+11	5·8	7·9	6·9	+1·2			2	1	7	4	23	13	10	S. 60° W.	S. 63° W.	55	73	33	50	9·40	2·67	Kailang	
·178	·196	·208	·194	−·034	56	44	45	48	+ 4	4·9	7·0	6·0	+1·9	3	18	8	2	1	11	9		3	N. 1° W.	S. 84° W.	13	12	171	158			Simla (Ridge)¶	
·191	·214	·179†	·195	−·025	63	46	38†	49	+ 6	3·9	5·4	4·7	+1·2	7	7	7	3	9	20	3	1	3	S. 32° E.	S. 64° W.	28	24	265	156			Chakrata	Hill Stations, N. India.
·223	·232	·218	·224	−·041	57	42	37	45	+ 1	3·8	3·7	3·8	+0·6	10	4	10	1	2	4	10	14	5	N. 82° W.	S. 85° W.	25	43	94*	89			Ranikhet	
·209	·281	·289	·260		64	55	53	57		3·9	5·1	4·5			1	5	5	18	3	7	1	20	S. 32° E.		3		157*				Muktesar	
·328	·332	·291	·317	−·056	84	38	30	51	− 9	2·6	3·9	3·3	−1·0				12	3		2	35	6	N. 89° W.	N. 86° W.	45	44	34	36	0·58	0·40	Katmandu	
·260	·320	·359	·313	−·013	77	67	68	71	− 5	3·9†	6·2	5·1	−1·0	1		5	3	2	2	25	18	4	S. 64° W.	S. 71° W.	57	44	253*	206			Darjeeling	
·261	·294	·293	·282	+·028	39	31	27	32	+ 4	1·1	1·9	1·5	−0·4		6	3		1	2	28	9	11	S. 79° W.	S. 87° W.	57	56	239*	193			Mount Abu	Hill Stations, C. India.
·359	·488	·502	·450	+·202	48	40	34	41	+15	1·8	3·8	2·8	+0·6	14	4	4	1	4		4	10	19	N. 53° W.	N. 62° W.	40	43	145*	138			Pachmarhi	
·355	·439	·453	·416	+·138	44	35	30	36	+10	1·9	4·3	3·1	+0·5	25	17	4		1	2	3	1	7	N. 13° W.	N. 47° W.	34	40	240*	194	0·04	0·02	Chikalda	
·393	·410	·425	·409	+·014	86	51	54	64	0	4·5	6·4	5·5	+0·8		7	5	1	36	6	2		3	S. 53° E.	S. 58° E.	55	61	73	64			Wellington	Hill Stations, S. India.
·308	·371	·406	·362		75	62	75	71		4·6	7·5	6·1		1	7	16	10	9	1			16	N. 36° E.		47		182				Kodaikanal	
·653	·737	·605	·665	−·087	69	62	46	59	− 9	1·1	0·2	0·7	−1·6		1	19	23	7	3	6	1		N. 87° E.	N. 86° E.	60	62	401‡	363			Aden	Extra India.
·837	·839	·826	·834	+·037	89	66	64	73	+ 3	0·5	0·1	0·3	−1·4				10	32	18				S. 39° E	S. 62° E.	87	55	490*	417			Perim	
	·863	·831				67	63			4·0	4·0	4·0			21	5	2		2		11	19	N. 28° W.		68		125*				Minicoy	
·813	·901	·877	·864	+·017	85	83	74	81	0	5·1	5·5	5·3	−0·4	4		1	1	10	26	13	5		S. 8° W.	S. 5° E.	70	81	133*	174			Zanzibar	
·841	·889	·899	·876	+·055	87	75	76	79	+ 2	4·9	5·1	5·0	−0·1	2	6	7	4	1	2	2	5	31	N. 33° W.	S. 69° E.	57	10	150	?	9·43	2·03	Port Victoria (Seychelles).	
			·727					81	+ 3																		242	254	3·16	0·99	Mauritius (Pamplemouses)	

§ Mean of 25 days. ‖ Mean of 27 days. ¶ Wind variable 5. †† Mean of 29½ days. * Corrected.

G. I. C. P. O.—No. 32 Metea.—10-9-1900.—385.

Reg. No. 121 Wr. India. Mon. Wr. 5-6-00

LITHO. BY J. N. MUKERJI, Calcutta.

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 Buys Ballot'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 " " " " "

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.

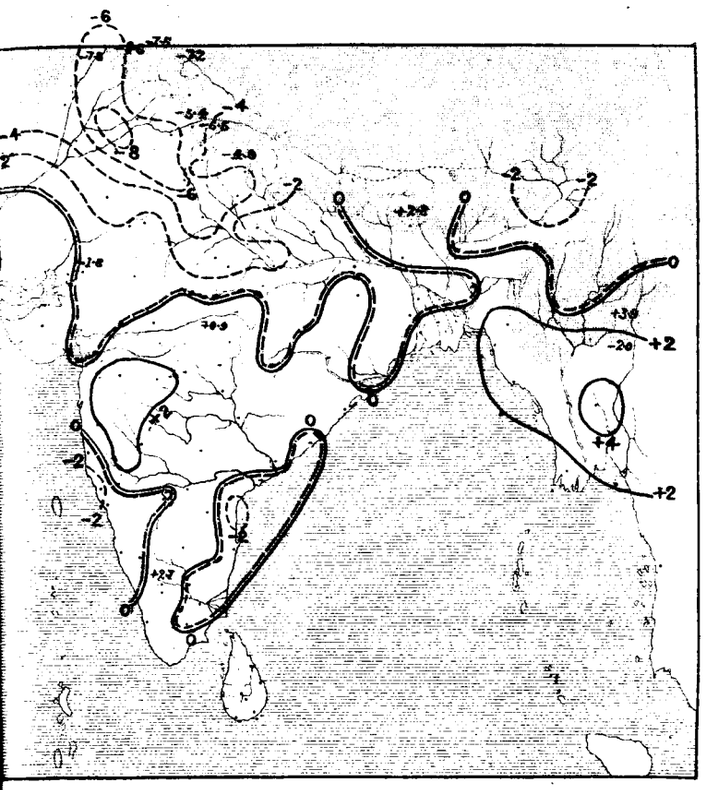
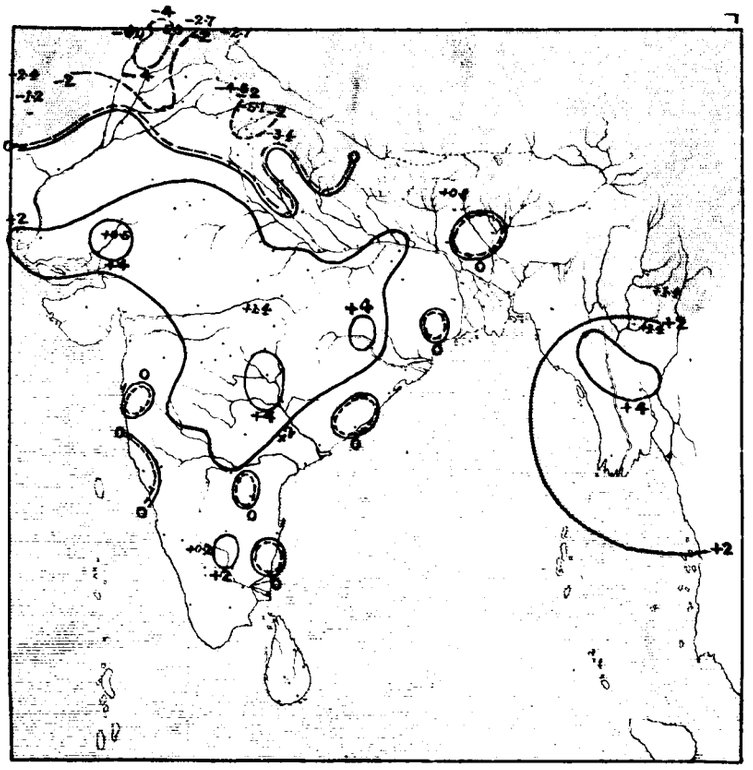


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



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 the amounts indicated by the attached umbers. Double lines are the lines of no variation, the broken line facing e 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 the 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.

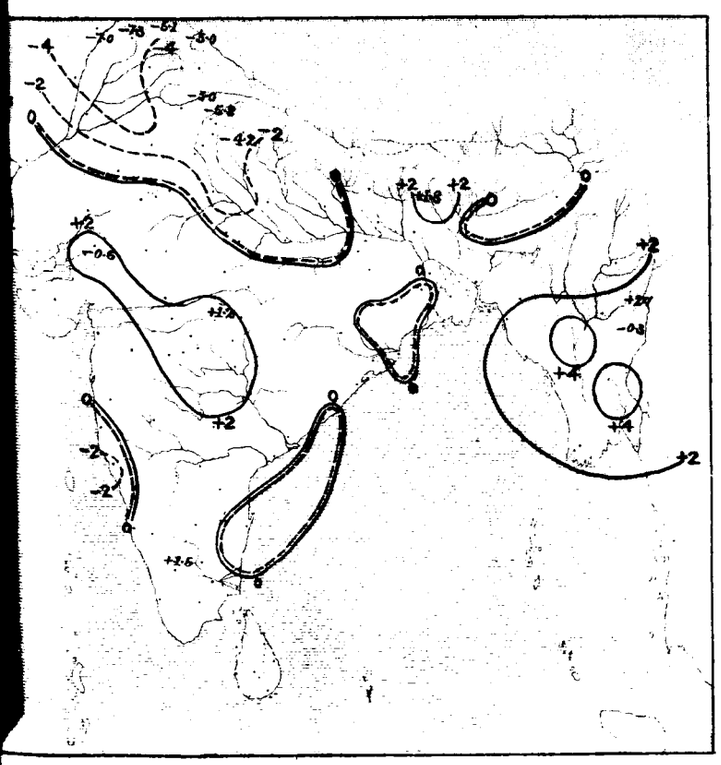
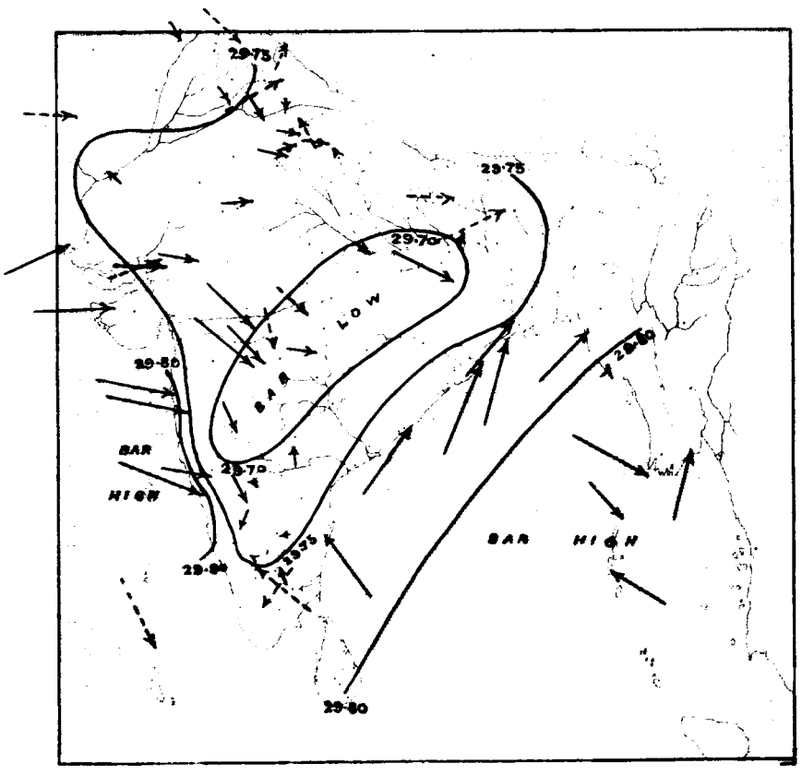


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF APRIL 1900.



LITHO. BY J. N. MUNDLE

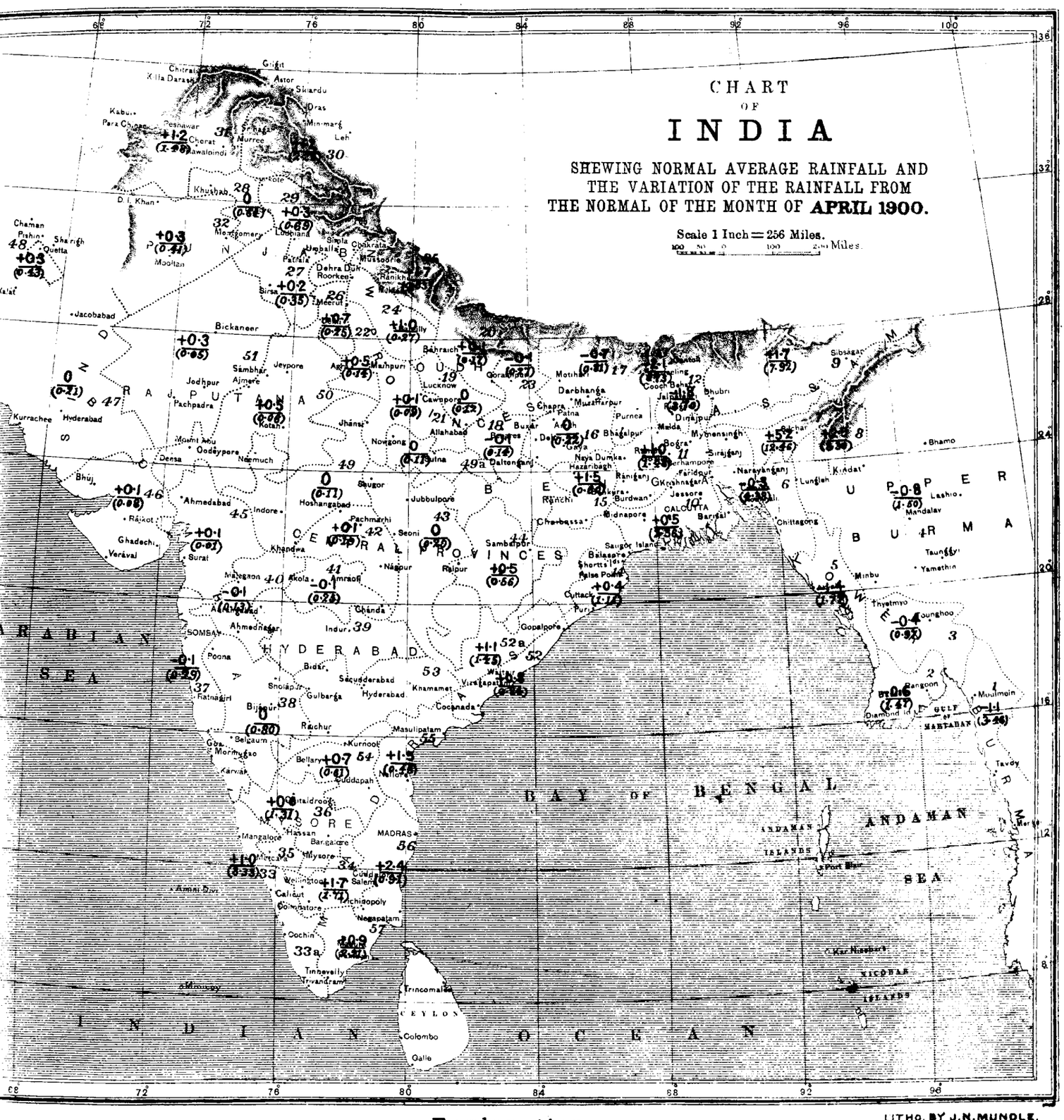
Explanation.

ontinuous lines indicate that the mean daily temperature of month as in excess by amounts indicated by the attached numbers. Broken r dotted lines that it was in defect by the amounts indicated by the tached numbers. Double lines are the lines of no variation, the broken ne facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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 ⅕th of an inch being equal to 100 per cent.

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 (182 in number), except those at the Hill Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those 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 with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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 N

17. North Bihar
18 North Western Provinces, East
19. South Oudh
20. North do.
21. North Western 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

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

48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. East Coast, North
52(a). Do. do. (a)
53. Hyderabad, South
54. Madras, Central
55. East Coast, Central
56. East Coast, South
57. Madras, South

GOVERNMENT OF INDIA.

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INTRODUCTION.

THIS review of the weather in India during the month of May 1900 is based on observations taken daily at 8 A.M. at 217 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 weekly rainfall telegrams received during the month from District Officers throughout India, 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 May, 1900.

Pressure was everywhere excessive at the commencement of the month. The excess was least over Tenasserim, the south of the Bay and Ceylon. The following gives the variations of pressure from the normal over the area of greatest excess in Bengal and over the area of least excess over the Bay :—

Area.	Station.	Variation from normal of mean 8 A.M. pressure of 1st May.
		"
Bengal	Purnea	+·142
	Bogra	+·140
	Dhubri	+·125
	Jalpaiguri	+·121
	Dinajpur	+·120
Bay area	Moulmein	+·023
	Mergui	+·018
	Diamond Island	+·010
	Tavoy	?—·003
Ceylon	Trincomalee	+·019
	Colombo	—·013

During the next two days pressure fell everywhere and during that time a small depression was apparently developed over the south of the Andaman Sea. This depression advanced northward and broke up over the

head of the gulf of Martaban on the 5th. The storm was small and ill-defined but gave the following rainfall amounts to the stations in Tenasserim and Lower Burma :—

DISTRICT	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
THATON	Kyaikto	2nd May	3·03
TAVOY	Thayetchaung	" "	2·67
BASSEIN	Kyoupyaw	" "	2·21
TAVOY	Launglon	" "	1·19
MYAUNGMYA	Pantanaw	" "	1·15
TAVOY	Yebyu	3rd "	4·35
"	Thayetchaung	" "	3·97
"	Launglon	" "	3·62
MERGUI	Victoria Point	" "	1·94
MYAUNGMYA	Wakema	" "	1·00

The storm broke up during the 24 hours succeeding 8 A.M. on the 5th and the barometer rose briskly to rapidly.

The rainfall occasioned low temperatures in Burma from the 3rd to the 7th. This is shown below :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	3rd May.	4th May.	5th May.	6th May.	7th May.
	°	°	°	°	°
Burma	−2·8	−6·5	−5·2	−4·1	−1·4

In the mean time important changes had been progressing over India. A large area of excessive temperature was shown over Baluchistan and North-West India at the commencement of the month and this area of excess extended, day by day, till by the 6th it had spread to nearly all parts of the country. The following table gives the variation data of the mean daily temperature from the normal in India for each day from the 1st to the 6th and shows the progress of the area of excessive temperature:—

PROVINCE OR DIVISION.	VARIATION 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.
	°	°	°	°	°	°
Burma	−2·8	−1·0	−2·8	−6·5	−5·2	−4·1
Assam	−2·1	−0·2	+2·9	+2·2	+0·2	+2·2
Bengal	−0·1	−0·2	+0·5	+1·1	−0·1	+2·7
Orissa	−0·7	+0·6	−0·5	−1·7	−2·8	+2·2
Bihar	+2·0	+2·1	+2·6	−0·9	0	+3·7
Chota Nagpur	−3·1	−1·5	−5·4	−3·5	−2·0	+3·1
North-Western Provinces and Oudh.	−1·2	+1·6	+3·1	+1·0	+0·9	+4·4
Punjab	+3·7	+6·6	+6·7	+6·9	+6·6	+4·7
Sind	+1·7	+1·6	+2·2	+2·6	+3·6	+3·2
Rajputana	+4·3	+6·0	+6·5	+5·7	+4·1	+4·3
Gujarat	+2·5	+3·4	+3·0	+0·8	+1·4	+0·6
Central India	+0·4	+1·5	+3·5	+4·2	+2·7	+2·4
Central Provinces	−1·5	+0·1	+1·6	+2·7	+2·3	+2·6
Berar	−3·4	−0·1	+3·8	+5·0	+3·5	+2·0
West Coast	+1·1	+0·1	−0·1	+1·3	+1·0	+0·9
Bombay Deccan	+0·6	+2·3	+2·7	+4·6	+2·1	−0·4
Mysore	+1·9	+1·0	+1·1	+3·2	+2·9	+2·0
Madras Coast	−3·2	−2·3	−1·1	+0·6	+2·0	+3·1
Madras Deccan	−2·6	−0·9	0	+3·1	+3·3	+2·3
South India	−1·9	−4·1	−4·1	−0·5	+0·9	0

The day temperatures were very high at this time in the north-west and the following maxima exceeding 112° were recorded :—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
1st May	Jacobabad	117·1	107·0	+10·1
2nd "	Jacobabad	116·6	107·6	+ 9·0
" "	Mooltan	112·9	102·1	+10·8
" "	Ahmedabad	112·8	108·1	+ 4·7
" "	Montgomery	112·5	103·9	+ 8·6

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
3rd May	Jacobabad	115·1	108·2	+ 6·9
" "	Lahore	113·1	101·2	+11·9
" "	Akola	112·6	107·4	+ 5·2
" "	Mooltan	112·4	102·6	+ 9·8
" "	Khandwa	112·2	106·1	+ 6·1
4th "	Jacobabad	115·6	108·7	+ 6·9
" "	Chanda	112·7	109·5	+ 3·2
" "	Akola	112·6	107·3	+ 5·3
" "	Lahore	112·6	101·5	+11·1
" "	Sirsa	112·3	105·3	+ 7·0
5th "	Jacobabad	115·6	108·9	+ 6·7
" "	Nagpur	113·2	108·5	+ 4·7
" "	Chanda	113·2	109·4	+ 3·8
" "	Montgomery	113·0	106·3	+ 6·7
" "	Mooltan	112·4	103·6	+ 8·8
6th "	Jacobabad	116·1	109·1	+ 7·0
" "	Chanda	112·7	109·4	+ 3·3
" "	Nagpur	112·2	108·7	+ 3·5
" "	Lahore	112·1	102·5	+ 9·6

During these six days there was very little rain throughout India generally but a rather heavy fall occurred in the south of the Peninsula and showers were received in North Madras.

On the 6th a depression, which had been developing over North-West India, suddenly intensified and gradients became very steep all over that area. The winds became cyclonic and strong, and rain fell generally over the Punjab and the North-West Himalayas. The depression crossed the Punjab and broke up during the 7th in the Kumaon Himalayas. It occasioned rain over a large part of North-West India and in Kashmir between the 5th and the 7th, the following being some of the more important falls in Kashmir, the North-West Himalayas and the plains of North-West India:—

DISTRICT OR AREA.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SHAHPUR	Shahpur	5th May	1·15
KASHMIR	Sri Ranbir Singh Pora	6th "	1·82
"	Domel	" "	1·51
"	Lal Phak	" "	1·32
SHAHPUR	Sakesar	" "	1·28
KASHMIR	Haripore	6th May	1·20
KOHAT	Thal	" "	1·15
BALUCHISTAN	Fort Sandeman	" "	1·02
KASHMIR	Sopore	" "	1·01
DERA ISMAIL KHAN	Shekhbudin	7th "	2·50
PESHAWAR	Nahakki	" "	1·92
"	Peshawar	" "	1·80
"	Charsadda	" "	1·73
BANNU	Isakhel	" "	1·61
KASHMIR	Nagam	" "	1·58
DERA ISMAIL KHAN	Dera Ismail Khan	" "	1·54
KOHAT	Thal	" "	1·49
KASHMIR	Sri Ranbir Singh Pora	" "	1·44
PESHAWAR	Swabi	" "	1·42
BANNU	Marwat	" "	1·35
KASHMIR	Sri Protap Singh Pora	" "	1·32
KANGRA	Nagar	" "	1·31
PESHAWAR	Mardan	" "	1·20
DERA ISMAIL KHAN	Tank	" "	1·17
MUZAFFURGARH	Sinanwan	" "	1·15
PESHAWAR	Nowshera	" "	1·14
KASHMIR	Uri	" "	1·13
PESHAWAR	Khanmahi	" "	1·10

The rain was followed by a marked fall of temperature and a wave of cold passed into North-Western and North-Eastern India. The following gives comparative temperature data for the different divisions of Northern India from the 6th to the 10th and shows the progress of the wave:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	6th May.	7th May.	8th May.	9th May.	10th May.
	°	°	°	°	°
Sind	+3·2	−2·6	−2·0	−1·1	−0·8
Punjab	+4·7	−8·7	−9·4	−7·1	−3·3
Gujarat	+0·6	−1·0	−2·9	−1·5	+0·4
Rajputana	+4·3	−0·4	−2·8	−3·0	−1·9
Central India	+2·4	+1·2	−0·4	+0·3	−2·0
North-Western Provinces and Oudh.	+4·4	+4·7	+2·2	−0·8	−3·1
Chota Nagpur	+3·1	+1·4	+0·3	−2·0	−5·5
Orissa	+2·2	+1·2	+1·7	−1·2	−4·6
Bihar	+3·7	+2·2	+3·9	+1·6	−3·8
Bengal	+2·7	+0·4	+1·7	+0·2	−1·3

Quiet weather prevailed over the greater part of India after the disappearance of the above noticed storm, though thunderstorms were numerous in the north-east, but on the 12th a remarkable change commenced. Slight thunderstorms and rain commenced within an area of relatively low temperature over Kathiawar and this area of relatively low temperature and of thunderstorms proceeded to extend until by the 17th and 18th, it had covered the greater part of Northern India over the whole of which region the heat was much less than usual and thunder showers were remarkably widespread. The following gives the variation of the mean daily temperature for each alternate day from the 11th to the 19th for the whole of Northern and Central India :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	11th May.	13th May.	15th May.	17th May	19th May.
	°	°	°	°	°
Assam	+1·3	+2·5	+4·7	+2·1	−1·6
Bengal	+0·2	−1·3	+2·1	−0·5	−2·9
Orissa	+1·5	−2·9	−1·3	−0·1	−2·4
Bihar	−1·0	−5·2	+1·6	−5·4	−5·9
Chota Nagpur	−2·6	−4·2	−0·5	−5·7	−7·9
North-Western Provinces and Oudh.	−0·8	+1·4	−1·6	−5·7	−8·4
Punjab	+0·9	+6·1	+0·8	−2·9	−8·2
Sind	+0·8	−1·0	+0·5	+3·1	+0·5
Rajputana	+1·6	−1·4	−5·7	−2·7	−5·2
Gujarat	−0·9	−1·5	−1·9	+0·6	−0·1
Central India	−0·5	+0·4	−4·3	−5·8	−3·5

The reduction of temperature, as is usual during the occurrence of rain during the hot weather, was more marked in the day than in the night temperatures and the following low day temperatures were recorded at this time :—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual, of date.	Normal, of date.	Variation of actual from normal of date.
		°	°	°
11th May	Patna	90·5	96·7	− 6·2
" "	Umballa	99·0	104·2	− 5·2
12th "	Hyderabad (Sind)	100·6	106·9	− 6·3
" "	Rajkot	99·9	106·0	− 6·1
13th "	Darbhanga	82·7	94·3	−11·6
" "	Patna	89·0	97·5	−8·5
14th May	Deesa	95·6	106·2	−10·6
" "	Jacobabad	103·4	110·6	− 7·2
15th "	Bikaner	95·2	106·5	−11·3
" "	Ajmer	92·4	103·1	−10·7
16th "	Sirsa	92·8	105·8	−13·0
" "	Sutna	91·9	104·4	−12·5
17th "	Mainpuri	95·8	108·0	−12·2
" "	Ludhiana	92·1	104·3	−12·2
18th "	Bareilly	81·3	103·3	−22·0
" "	Benares	89·8	106·1	−16·3
" "	Roorkee	86·8	102·6	−15·8
19th "	Rawalpindi	75·0	97·4	−22·4
" "	Sialkot	84·1	102·5	−18·4
" "	Khushab	87·8	106·1	−18·3

Over the Peninsula the weather was showery at times, but on the whole the mean temperature was excessive over that region. The following gives temperature variation data for each alternate day from the 11th to the 19th for the Peninsular divisions :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	11th May.	13th May.	15th May.	17th May.	19th May.
	°	°	°	°	°
Central Provinces	0	+1·1	−0·7	−3·3	0
Berar	+0·9	−0·1	−0·7	−2·2	+1·8
West Coast	+0·3	−0·1	+1·2	+1·0	+0·2
Bombay Deccan	+0·9	−1·4	+0·2	+0·6	+3·3
Mysore	+3·3	+2·4	+4·6	+4·1	+4·3
Madras Coast	−1·0	−0·5	−1·3	−0·4	−2·5
Madras Deccan	+3·0	+2·3	+3·0	+2·7	+1·8
South India	+1·7	+1·3	+1·0	+3·8	0

Between the 19th and the 25th the mean temperature generally recovered, though not very steadily. Consequently the area of relatively low temperature in the north gradually contracted, while the area of high temperature over the Peninsula extended and spread over Northern India. The progress of this change is shown in the following table which gives the daily variation of

temperature for the Indian divisions (excluding Assam) from the 19th to the 25th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	19th May.	20th May.	21st May.	22nd May.	23rd May.	24th May.	25th May.
	°	°	°	°	°	°	°
Bengal	−2·9	−1·5	+1·7	+1·7	+2·2	+1·4	−0·5
Orissa	−2·4	−2·6	−1·0	+1·8	+2·1	+3·8	+4·7
Bihar	−5·9	−2·5	−0·1	+3·1	+5·2	+5·1	+2·8
Chota Nagpur	−7·9	−4·4	−1·0	+1·4	+2·4	+6·5	+8·1
North-Western Provinces and Oudh.	−8·4	−5·8	−2·6	+0·4	+3·1	+6·0	+4·9
Punjab	−8·2	−8·2	−2·9	−0·2	+3·0	+5·2	+6·1
Sind	+0·5	−0·3	−0·8	+0·9	+2·9	+2·8	+2·0
Rajputana	−5·2	−5·5	−3·3	+0·2	+2·2	+2·9	+2·1
Gujarat	−0·1	−0·3	+0·5	−0·6	−1·0	−0·1	−1·0
Central India	−3·5	−0·5	+0·2	+1·1	+2·6	+2·9	+3·3
Central Provinces	0	+0·4	+1·6	+1·6	+0·7	+3·2	+3·8
Berar	+1·8	+3·2	+4·0	+3·5	+2·2	+0·4	+2·0
West Coast	+0·2	+0·6	+0·7	+0·8	+0·8	+1·3	+1·1
Bombay Deccan	+3·3	+2·9	+2·1	+3·2	+1·9	+1·5	−0·4
Mysore	+4·3	+3·3	+3·4	+3·6	+4·1	+0·4	−2·9
Madras Coast	−2·5	−2·6	−2·9	−2·3	−0·3	+1·0	+2·1
Madras Deccan	+1·8	+1·9	+2·1	+2·9	+2·8	−1·5	−3·6
South India	0	+0·9	+1·1	+1·0	+2·2	+2·4	+3·7

On the 25th another depression developed over the Punjab, the winds in North-West India drew into cyclonic directions and rain again fell over Baluchistan, the Punjab and the North-Western Himalayas. This fall of rain was succeeded by a rapid change of temperature in the north-west. This cold wave did not, however, extend very far and by the 29th had altogether disappeared. The following gives the temperature variations for North-Western India from the 26th to the 29th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	26th May.	27th May.	28th May.	29th May.
	°	°	°	°
Baluchistan	−8·1	−5·6	−3·1	−1·4
Sind	−0·5	−1·0	−0·1	+0·3
Gujarat	+0·7	+0·4	+1·1	+0·4
Rajputana	+2·8	+2·0	+3·2	+3·7
Punjab	−0·4	−0·4	−0·8	+0·3
Central India	+3·9	+3·7	+3·2	+2·9
North-Western Provinces and Oudh.	+1·9	+1·7	+0·8	−0·1

In Assam there were daily thunderstorms during the last ten days of the month and the mean temperature was hence continuously low over that province. The following gives temperature data for each alternate day from the 19th to the 31st for that province :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	19th May.	21st May.	23rd May.	25th May.	27th May.	29th. May	31st May.
	°	°	°	°	°	°	°
Assam	−1·6	−1·1	−4·0	−7·0	−2·1	−1·1	−4·3

In the Peninsula the weather was generally quiet and fine during the last ten days of the month, but on the 24th and again on the 29th there was a good deal of rain more particularly along the east coast. The following gives temperature data for the Peninsular divisions for the 23rd and 24th showing the effect of the first fall of rain :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF	
	23rd May.	24th May.
	°	°
Berar	+2·2	+0·4
Bombay Deccan	+1·9	+1·5
Mysore	+4·1	+0·4
Madras Coast	−0·3	+1·0
Madras Deccan	+2·8	−1·5
South India	+2·2	+2·4

The second fall of rain mainly occurred along the east coast and the following gives the temperature data for the Madras Coast and South India from the 27th to the 29th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF		
	27th May.	28th May.	29th May.
	°	°	°
Madras Coast	−1·2	−3·1	−1·8
South India	+4·2	+2·3	+0·6

On the 30th there occurred a very general rise of temperature, except in the north-east, and on the 31st the heat was more or less excessive over the greater part of the country. The following gives comparative data for

the 24 hours preceding 8 A.M. of the 31st for all divisions :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 31st May.	Mean minimum temperature, 31st May.	Mean daily temperature, 31st May.
	°	°	°
Burma	+2·4	+1·2	+1·8
Assam	—4·4	—4·1	—4·3
Bengal	+0·5	—4·1	—1·8
Orissa	+3·5	—6·0	—1·3
Bihar	+1·5	—0·3	+0·6
Chota Nagpur	+5·5	+1·9	+3·7
North-Western Provinces and Oudh	+4·7	+4·6	+4·7
Punjab	+4·1	+6·7	+5·4
Sind	+2·2	+2·5	+2·4
Rajputana	+2·9	+5·2	+4·1
Gujarat	+0·3	—1·5	—0·6
Central India	+4·2	+3·4	+3·8
Central Provinces	+5·1	+3·8	+4·5
Berar	+5·5	+0·4	+3·0
West Coast	+1·5	+3·0	+2·3
Bombay Deccan	+7·8	—0·2	+3·8
Mysore	+5·2	—0·1	+2·6
Madras Coast	+1·0	+0·8	+0·9
Madras Deccan	+4·9	+4·4	+4·7
South India	+0·5	+1·6	+1·1

Pressure.—The mean pressure of the Indian Land area was 0·061 inch above the normal. At every station in the whole of India and Burma the barometer, on the mean of the month, read above the normal. The excess was greatest in Gujarat and least in Tenasserim. This large general excess has only thrice been exceeded within recent years. Compared with the general condition, pressure was in local defect over the Indus Valley, the south and centre of the Peninsula, Burma, Tenasserim, Assam and parts of Bengal and was in excess over the remainder of India. The excess was greatest in Gujarat and the deficiency was greatest in Tenasserim. The large pressure anomalies over Northern and Central India accompanied unsettled weather over those areas. The mean pressure of the month was in excess at all the hill stations. The excess at the level of the hill stations was approximately of the same amount as that on the neighbouring plains except at Darjeeling where it was greater and Mount Abu where it was less than that at the stations on the plains. The veritcal pressure anomalies were hence slight except in these two cases.

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

Meteorological Province.	Variation from normal of mean 8 A.M. pressure of May 1900.	Pressure anomaly, May 1900.
	"	"
Burma Coast and Bay Islands	+·037	—·024
Burma Inland	+·052	—·009
Assam	+·055	—·006
Bengal and Orissa	+·066	+·005
Gangetic Plain and Chota Nagpur	+·069	+·008
Upper Sub-Himalayas	+·061	0
Indus Valley and North-West Rajputana	+·068	+·007
East Rajputana, Central India and Gujarat	+·073	+·012
Deccan	+·064	+·003
West Coast	+·061	0
South India	+·052	—·009

Temperature.—The temperature variations of the month of May 1900 were irregular. There was a hot period at the commencement of the month and another at its close in Northern India, while the intervening period was more or less cooler than usual. In the Peninsula temperature was steadier and was generally higher than usual.

The mean maximum temperature of the month was below the normal over nearly the whole of the Punjab, North Bombay, Rajputana, Central India, the North Western Provinces and West Bengal. The deficiency was greatest and more than 2° at Peshawar (—2°·4), Khushab (—2°·8), Montgomery (—3°·7), Jaipur (—2°·4), Neemuch (—2°·2), Agra (—2°·3), Bahraich (—2·4) and Gorakhpur (—2°·7). The mean day temperature was also below the normal along part of the West Coast, but here the deficiency was everywhere small. It was also lower than usual over the south-east coast of Madras, the north-east coast of Ceylon and on the Tenasserim and Lower Burma coasts. The deficiency was greatest in the Kistna district of Madras, and amounted to (—2°·6) at Masulipatam and to (—2°·4) at Cocanada.

Over the remainder of India the mean maximum temperature was generally in excess. The excess was considerable over the inland parts of the Peninsula amounting to (4°·1) at Poona and to (4°·2) at Bangalore. It was moderately large in parts of Bengal and Arakan and exceeded 2° at Jalpaiguri (+2°·1), Calcutta (+2°·1), Chittagong (+2°·6), Akyab (+3°·7) and Minbu (+3°·1).

At the north-west hill stations the mean maximum temperature was lower than usual, particularly at Cherat (—5°·3).

The mean minimum temperature was less extensively below the normal. It was, however, in defect in Baluchistan, the Central Punjab, Gujarat, the Bombay Deccan, Bengal, Cachar, Upper Burma and the Madras Coast. The variations were small and exceeded 2° only at Chaibassa (—2°·2). Over the whole of the remainder of India the mean of the night temperatures was in excess and over North-West India, the North Deccan and the south of the Peninsula the variations exceeded 2°. The excess was more than 4° at Sirsa and Hyderabad Deccan (each +4°·1). At the hill stations the mean night temperature was very nearly normal.

The mean temperature of the month was below the normal over the Central Punjab, Gujarat, the greater part of the North-Western Provinces, South-West Bengal, Upper Assam, the Madras Coast and part of Burma. The variations were, however, generally small and unimportant. Over the remainder of India the mean temperature was generally in excess. The excess was more than 2° over the south-west of the Punjab and Upper Sind (Jacobabad +2°·6), locally at Lahore (+2°·5) and in the interior of the Peninsula where the variation amounted to 3°·4 at Secunderabad, Hyderabad and Bangalore and to 3°·5 at Salem. At the hill stations in the north-west the mean temperature was in slight defect and at those in the centre, south and north-east, in slight excess of the normal.

The following table gives comparative temperature variation data of the month for the eleven meteorological provinces:—

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, May 1900.	Mean minimum temperature, May 1900.	Mean daily temperature, May 1900.
	°	°	°
Burma Coast and Bay Islands	+0·2	0	+0·1
Burma Inland	+0·5	—0·7	—0·1
Assam	+0·7	—0·5	+0·1
Bengal and Orissa	+0·8	—0·8	+0·1
Gangetic Plain and Chota Nagpur	—1·3	—0·1	—0·6
Upper Sub-Himalayas	—0·3	+2·9	+1·3
Indus Valley and North-West Rajputana.	—1·0	+1·2	+0·1
East Rajputana, Central India and Gujarat.	—0·7	+1·3	+0·3
Deccan	+1·7	+1·4	+1·6
West Coast	+0·3	+1·2	+0·8
South India	+0·9	+1·0	+0·9

Winds.—The winds were more westerly and stronger than usual at the Bay Islands and they were also more westerly in Bengal, but in Burma, Orissa and Chota Nagpur there was less westing than usual and the winds were lighter than the normal. In Upper India the wind directions were about normal or more westerly than the average and the force was even lighter than usual.

With the exception of Mysore and the Madras Deccan the wind was stronger than usual over the Peninsula. This excess was most marked in the Bombay Deccan and Berar. Both in the Madras Deccan and in Mysore the wind was more northerly and less westerly than usual, but elsewhere the wind blew from about the normal directions. In the South-east Trades region the winds were feeble and unsteady.

Humidity.—The air was much drier than usual over the inland parts of the Peninsula, more particularly in Mysore. The air was also drier than usual over the east of the Punjab, Western Rajputana, North Bombay and Bengal, but in most parts of these areas the deficiency was small. At Ludhiana, however, the deficiency was 8. Elsewhere the mean humidity of the month was above the normal, the excess having been greatest in Baluchistan and the North-Western Punjab.

The following gives comparative data for nine meteorological provinces:—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, May 1900.	Variation of actual from normal, May 1900.	Average actual, May 1900.	Variation of actual from normal, May 1900.
	"	"	%	
Burma Coast and Bay Islands	·915	+·016	80	+1
Bengal and Orissa	·902	—·026	76	—3
Gangetic Plain and Chota Nagpur	·600	+·014	48	+2
Upper Sub-Himalayas	·427	—·026	35	—3
Indus Valley and North-West Rajputana.	·640	—·053	50	+3
East Rajputana, Central India and Gujarat.	·469	—·033	36	0
Deccan	·413	—·073	32	—7
West Coast	·837	—·028	70	—4
South India	·631	—·025	55	—6

Cloud.—The sky was more cloudy than usual over Baluchistan, Upper Sind, the greater part of the Punjab, the North-Western Provinces, West Bengal, the east of the Central Provinces, the Madras Deccan and part of Mysore. The excess was considerable locally at Quetta (+2·6), Peshawar (+1·9), Meerut (+2·9) and Mysore (+1·2). Cloud was also in slight excess over Lower Burma and the

Bay Islands. Over the remainder of India cloud was in defect. The deficiency was greatest over the Bombay Presidency and was absolutely greatest at Bombay (—2·1). The deficiency was 1 or more at the head of the Bay (Saugor Island —1·4).

The following table gives variation data of the mean cloud amount of the month for nine meteorological provinces :—

Meteorological Province.	Mean cloud amount.	
	Average actual, May 1900.	Variation of actual from normal, May 1900.
Burma Coast and Bay Islands	6·5	+0·1
Bengal and Orissa	4·3	—0·8
Gangetic Plain and Chota Nagpur	2·8	+0·4
Upper Sub-Himalayas	3·0	+0·9
Indus Valley and North-West Rajputana	2·4	+0·3
East Rajputana, Central India and Gujarat	1·5	—0·4
Deccan	2·4	—0·7
West Coast	1·7	—1·9
South India	4·6	—0·1

Rainfall.—During the month under review practically no rain fell over the Bombay Presidency except Kathiawar and the Bombay Deccan and the fall was less than one inch over the North Deccan, the Central Provinces, Central India and North-West India, except the submontane districts and part of East Rajputana. The weather during May was more disturbed than usual in Northern India so that, though the general rainfall was lighter than usual, certain parts of Northern India, as for example, the West and North Punjab, the North-Western Provinces Hills, the east and central divisions of the North-Western Provinces, South Oudh and part of Rajputana, had more than the small average fall of the month. In North-East India where the storm rainfall is ordinarily heavy, the storms were less severe than usual and the whole of Bengal and Assam had less rain than usual. In Burma the rainfall was moderate to heavy at the commencement of the month, but there were no advances of monsoon winds in the second half of the month and the total rainfall was below the normal in all divisions. This was markedly the case in Arakan where the rainfall was in large defect. The east of the Central Provinces and the north of Madras had more rain than usual, but the centre and west of the Central Provinces were almost rainless throughout the month. In the Peninsula the rainfall was irregularly distributed. There were no advances of monsoon winds along the Malabar Coast and that portion of Madras had considerably less rain than usual. On the other hand, South Madras received a heavy burst of rain at the commencement of the month and the total rainfall in this division was in excess of the average. Central Madras and the centre and south of the East Coast had less rain than usual.

The following table gives data for the eleven meteorological provinces of the Empire :—

Meteorological Province.	Rainfall.			
	Mean actual for May 1900.	Mean normal for May.	Variation of actual from normal, May 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	11·12	12·68	—2·07*	—16
Burma Inland	4·15	4·89	—0·74	—15
Assam	14·27	14·52	—0·24	— 2
Bengal and Orissa	5·91	7·13	—1·22	—17
Gangetic Plain and Chota Nagpur	1·32	1·66	—0·46*	—28
Upper Sub-Himalayas	0·71	1·07	—0·42*	—39
Indus Valley and North-West Rajputana.	0·72	0·47	+0·25	+53
East Rajputana, Central India and Gujarat.	0·60	0·43	+0·13*	+30
Deccan	0·32	1·00	—0·67*	—67
West Coast	1·40	5·59	—4·19	—75
South India	1·90	2·58	—0·70*	—27

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

Atmospheric Pressure.

The mean pressure of the Indian Land area for the month of May 1900 was 0·061 inch above the normal. Pressure was, relatively to the general condition, in defect over Burma, Assam, East and North Bengal, the south and centre of the Peninsula, the Indus Valley and the East Punjab. The negative anomalies within these areas were

generally small, but exceeded 0·02 inch at the stations for which comparative data are given below :—

PROVINCE OR DIVISION.	STATION.	Variation from normal of mean 8 A.M. pressure of May 1900.	Pressure anomaly, May 1900.
		"	"
PENINSULA	Cuddapah	+·031	—·030
	Kurnool	+·036	—·025
	Secunderabad	+·036	—·025
	Salem	+·038	—·023
BURMA	Tavoy	+·012	—·049
	Rangoon	+·025	—·036
	Moulmein	+·031	—·030
	Mergui	+·033	—·028
	Kindat	+·033	—·028
	Bassein	+·040	—·021

Over the whole of the remainder of India the pressure was in excess. The excess was more than 0·02 inch in part of North Bombay. This is shown by the following comparative data :—

STATION.	Variation from normal of mean 8 A.M. pressure of May 1900.	Pressure anomaly, May 1900.
	"	"
Bhuj	+·087	+·026
Kurrachee	+·083	+·022
Rajkot	+·082	+·021
Deesa	+·082	+·021

In addition there were several stations at which the excess was locally 0·02 inch or more. The following gives comparative data for these stations :—

STATION.	Variation from normal of mean 8 A.M. pressure of May 1900.	Pressure anomaly, May 1900.
	"	"
Gopalpur	+·087	+·026
Balasore	+·085	+·024
Indore	+·084	+·023
Cawnpore	+·083	+·022
Sambhar	+·082	+·021
Purnea	+·081	+·020

The most marked feature in the pressure conditions of the month under review, was the excessive height of the barometer all over the country. The chart of barometric variations shows that on the mean of the month the pressure was above the normal at every station in the Indian region. The variation was more than 0·8 inch at the following stations for which comparative data are given below :—

STATION.	Variation from normal of mean 8 A.M. pressure of May 1900.
	"
Gopalpur	+·087
Bhuj	+·087
Balasore	+·085
Indore	+·084
Kurrachee	+·083
Cawnpore	+·083
Deesa	+·082
Rajkot	+·082
Sambhar	+·082
Purnea	+·081

The variations were smallest in Tenasserim and Lower Burma, and amounted to less than 0·04 inch at the following stations :—

PROVINCE OR DIVISION.	STATION.	Variation from normal of mean 8 A.M. pressure of May 1900.
		"
TENASSERIM	Mergui	+·033
	Moulmein	+·031
	Tavoy	+·012
BURMA	Kindat	+·033
	Rangoon	+·025

As mentioned above the mean pressure of the whole Indian area was in very large excess by amounts averaging 0·061 inch. So large an excess on the mean of the month has only been recorded thrice during the past 25 years, *viz.*, in January 1877 (+·073″), April 1877 (+·066″) and May 1885 (+·068″).

The mean pressure of the month was high along the West Coast and over the south of the Bay and was low over the Punjab, Rajputana and the North-Western Provinces. The distribution was thus approximately normal, but owing to the excess of pressure having been greater in the north than in the south, the barometric gradient was slighter than usual.

At all the hill stations on the Himalayas, in Baluchistan and in Central and Southern India, the mean pressure of the month was above the normal. In most cases the barometric variation at the level of the hills was about the same as at the stations on the plains at their foot. Consequently the vertical pressure anomalies were generally small except in the eastern half of the Himalayas, where

they were positive and moderate. The following gives data for ten pairs of stations:—

HILL STATION.	Variation of actual from normal pressure, May 1900.	PLAIN STATION.	Variation of actual from normal pressure, May 1900.	Vertical pressure anomaly, (Hill-Plain).
	"		"	"
Leh . . .	+·066	Lahore . .	+·073	—·007
Quetta . .	+·052	Jacobabad . .	+·056	—·004
Murree . .	+·076	Peshawar . .	+·069	+·007
Simla . . .	+·067	Ludhiana . .	+·045	+·022
Chakrata . .	+·113	Roorkee . .	+·064	+·049
Ranikhet . .	+·069	Bareilly . .	+·071	—·002
Darjeeling . .	+·087	Dhubri . .	+·056	+·031
Pachmarhi . .	+·067	Seoni . . .	+·066	+·001
Mount Abu . .	+·054	Deesa . . .	+·082	—·028
Wellington . .	+·048	Coimbatore .	+·051	—·003

The following is a brief summary of the abnormal features of the pressure conditions of the month:—

(1) Pressure was in general and exceptionally large excess over the whole Indian area.

(2) Pressure, relatively to this general condition, was in defect over Burma, Assam, East and North Bengal, the south and centre of the Peninsula, the South-East Punjab and part of the Indus Valley.

(3) The relative deficiency was moderate in amount over Tenasserim, Lower Burma and the Madras Deccan

(4) Pressure was in excess over the remainder of India, the excess having been greatest over North Bombay

(5) Pressure was in excess at all the hill stations in India. The excess was generally similar to that on the adjacent plains and the vertical pressure anomalies were hence generally small.

Barometric depressions and cyclonic storms of the month.

The weather was a good deal disturbed during May, more particularly over Northern India, where the number of duststorms and thunderstorms was larger than usual but there were no important cyclonic storms over either of the Indian seas. The air, as shown in the humidity section, was generally drier than usual over the southern half of the monsoon area, showing that no advances of monsoon winds occurred during the month. Conditions were hence unfavourable for the production of cyclonic storms while they were, on the contrary, favourable for the formation of dust and thunderstorms.

On the 1st and 2nd of the month pressure was higher than usual all over the country, but the barometer was falling steadily and by the 3rd the excess had disappeared, except over North-East India, and been replaced by a deficiency. This deficiency was greatest and moderate over the Andaman Sea.

Depression of the 3rd to 5th in the Andaman Sea:—On the 3rd the barometer was falling all over the country. The fall was no greater in Burma and Tenasserim than in other parts of the Indian area, but calms were reported from Mergui, Tavoy, Bassein and Diamond Island and light easterly winds from Moulmein and Rangoon. Heavy rain was falling at Port Blair and light rain had commenced around the coasts of the Andaman Sea where pressure was in moderate defect. The following gives 8 A.M. data for Port Blair and the Burma coast stations:—

STATION.	PRESSURE. 8 A.M., reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inches	
Port Blair .	29·751	—·033	—·055	WSW	9	8	3·39	
Mergui . .	29·817	—·010	—·003	Calm	2	6	0·90	Drizzling.
Tavoy . .	29·782	—·027	—·071	Calm	1	10	0·67	Distant Lightning.
Moulmein .	29·775	—·040	—·053	ENE	3	8	0·14	
Rangoon .	29·768	—·049	—·053	ESE	4	10	0·30	Showery.
Diamond Island.	29·772	—·036	—·048	Calm	7	10	0·84	Showery.
Akyab . .	29·759	—·026	—·045	NE	3	1	...	

The marine observations for this day exhibited the same general conditions as the coast stations, *viz.*, light, variable, unsteady winds and decreasing pressures and heavy rain The only exception was the *Kasara* which

in Lat. 12°56′ N. and Long. 96°50′ E. reported a strong squally south-west wind and a high sea. The following gives the marine observations on this day :—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer as corrected by the Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S. S. *Shahjehan* .	11 30	92 03	29·793	Var.	2	Incessant heavy rain.
S. S. *Kasara* .	12 56	96 50	29·668	SW	6	High sea and strong squalls
S. S. *Maharaja* .	16 00	94 22	29·697	Var.	3	Heavy rain.
S. S. *Commilla* .	16 36	94 00	29·750	Var.	2	Rainy.
S. S. *Malda* .	16 41	93 09	29·745	ESE	4	Sea smooth and fine
S. S. *Beswada* .	Rangoon		29·725	Var.	4	Heavy rain.
S. S. *Ethiopia* .	Rangoon		29·798	...	...	4 A.M. rainy.
S. S. *Umta* . .	19 17	92 21	29·779	Calm	0	

The centre of the disturbance was hence probably near the *Kasara*.

May 4th.—On the 4th the barometric changes all over the Indian region were very slight and around the coasts of the Andaman Sea a feeble recovery had set in. The winds had, however, strengthened a little at most stations and the only calm reported was at Mergui. The directions had also become cyclonic. Rain continued all round the coasts and had been moderately heavy at the stations in Tenasserim. At Port Blair the wind had increased and shifted from west-south-west to south-west. The following gives 8 A.M. data for the coast stations :—

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	″	″	″				Inches	
Port Blair .	29·763	+·012	—·042	SW	10	10	0·58	
Mergui . .	29·830	+·013	+·009	Calm	3	5	2·10	
Tavoy . .	29·824	+·042	—·030	SW	2	4	3·39	Distant Lightning.
Moulmein .	29·800	+·025	—·029	NE	5	0	2·80	
Rangoon .	29·794	+·026	—·027	ENE	3	9	0·61	Showery.
Diamond Island.	29·783	+·011	—·035	NE	5	8	0·12	Sea slight
Akyab . .	29·754	—·005	—·052	N	2	2	...	

There was hardly any marine information for this day.

The following gives the few observations recorded, which, however, throw very little light on the conditions prevailing over the Andaman Sea :—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer as corrected by the Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S. S. *Orissa* . .	9 59	91 28	29·732	SW	4	Overcast 4 A.M. squally with rain.
S. S. *Shahjehan* .	Port Blair		·843	...	...	Midnight overcast.
S. S. *Nadir* .	12 37	90 48	·683	NE	3	
S. S. *Malda* . .	Rangoon River		·685	NNW	4	Fine.
S. S. *Madura* .	Rangoon		·774	...	...	4 P.M. occasional rain.
S. S. *Commilla* .	18 51	93 44	·730	Calm	0	Fine.

The general conclusions to be derived from the above tables are, that the storm had intensified very slightly and had moved slowly to the northward.

May 5th.—On this day pressure was increasing in Tenasserim and at Port Blair, but was decreasing over Lower Burma, the change having been brisk to rapid at Moulmein and Rangoon. The small depression had apparently advanced north-north-eastward and was central to the south of Moulmein where the barometer marked 0·134 inch below the normal. The winds were cyclonic around the Andaman Sea and were blowing strongly at Rangoon at 8 A.M. The following gives 8 A.M. data for Port Blair and the Burma coast stations :—

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	″	″	″				Inches	
Port Blair .	29·841	+·078	+·036	W	14	6	1·70	
Mergui . .	29·838	+·008	+·015	Calm	3	6	0·37	
Tavoy . .	29·815	—·009	—·040	SW	2	10	2·79	
Moulmein .	29·696	—·104	—·134	...	4	10	2·10	Raining.
Rangoon .	29·714	—·080	—·107	NNE	6	10	2·50	Raining.
Diamond Island.	29·765	—·018	—·053	WNW	13	6	...	
Akyab . .	29·737	—·017	—·068	NE	2	2	...	

The marine observations are slightly more numerous for this day. They show that a fresh northerly wind was blowing on board the *Ethiopia* near Rangoon and moder-

ate west and south-west winds elsewhere. The following gives the marine observations for this day:—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer as corrected by the Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S. S. *Orissa* . .	12 49	94 07	29·801	SW	2	Cloudy.
S. S. *Shahjehan* .	13 25	94 14	·823	W	4	Passing clouds, midnight heavy rain.
S. S. *Nadir* . .	14 51	94 16	·744	NW	3	
S. S. *Madura* .	16 29	93 10	·706	Var.	4	Moderate sea and passing squalls.
S S. *Ethiopia* .	16 30	96 25	·698	N	5	Overcast.
S. S. *Maharani* .	19 17	90 21	·701	S	4	Passing clouds.
S. S. *Hambleton* .	19 42	89 44	·727	SSW	4	
S. S. *Karagola* .	19 28	90 18	·694	SW	4	Moderate sea and fine.

May 6th.—The barometer had risen over nearly the whole of the Indian area. The change had been brisk to rapid over Lower Burma and the depression noticed over that area had filled up.

Hot weather depression of the 4th to the 7th.—On the 4th the barometer was falling ovor Baluchistan and the Punjab, but more particularly over the south of the Punjab where a shallow depression had been developed. The depression developed over an area of very excessive temperature, the variation of the mean temperature having been more than +8° at the stations for which comparative data are given below:—

STATION.	VARIATION FROM NORMAL OF		
	Maximum temperature, 4th May.	Minimum temperature, 4th May.	Mean temperature, 4th May.
	°	°	°
Ludhiana	+ 7·4	+9·7	+8·6
Mooltan	+ 8·2	+8·3	+8·3
Dera Ismail Khan	+10·1	+6·2	+8·2
Lahore	+11·1	+5·3	+8·2

The following gives the 8 A.M. data for the Punjab and Rajputana and shows the conditions existing at the time of the development of the depression:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″					
Rawalpindi	29·646	—·025	—·015	Calm	2	4	...	
Sialkot .	29·645	+·009	+·005	ESE	3	0	...	
Lahore .	29·609	—·024	—·031	SE	2	0	...	
Ludhiana .	29·624	+·009	—·034	SE	6	0	...	
Sirsa . .	29·568	—·079	—·072	SE	10	0	...	
Khushab .	29·590	—·047	—·045	NE	6	0	...	
Montgomery	29·563	—·052	—·066	Calm	5	1	...	
D. I. Khan.	29·600	—·044	—·064	Calm	2	0	...	
Mooltan .	29·606	—·028	—·049	W	1	0	...	
Bikaner .	29·631	—·016	—·045	SSW	...	0	...	
Jaipur .	29·688	—·023	+·001	WSW	6	0	...	
Ajmer .	29·693	—·024	—·010	W	13	0	...	
Sambhar .	29·673	—·031	+·002	W	9	0	...	
Kotah .	...	—·060	...	NW	6	0	...	
Jodhpur .	29·689	—·042	...	SSW	36	4	...	Duststorm.

May 5th.—On this day the barometer was still falling all over North-West India. The following gives 8 A.M. data for the Punjab, Rajputana and Sind:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″					
Rawalpindi	29·587	—·059	—·065	Calm	2	0	...	Dust haze.
Sialkot .	29·542	—·103	—·087	SE	3	0	...	Dust haze.
Khushab .	29·538	—·057	—·097	ENE	10	4	...	
Lahore .	29·531	—·078	—·102	E	2	0	...	Dust haze.
Montgomery	29·538	—·025	—·089	SSW	6	0	...	
Ludhiana .	29·545	—·079	—·108	SE	4	0	...	
Umballa .	29·559	—·092	—·072	E	3	0	...	
Sirsa . .	29·555	—·013	—·083	SE	3	0	...	
Delhi .	29·593	—·066	—·060	SE	4	0	...	Dust haze.
D. I. Khan.	29·530	—·070	—·134	Calm	2	4	...	
Mooltan .	29·534	—·072	—·121	S	2	0	...	Dust haze.
Bikaner .	29·574	—·057	—·092	SW	...	0	...	
Jacobabad .	29·509	—·069	—·138	SW	4	0	...	

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"					
Jaipur .	29·651	—·037	—·039	WSW	5	0	...	Clear.
Sambhar .	·637	—·036	—·033	W	8	0	...	
Ajmer .	29·649	—·044	—·050	W	10	0	...	
Kotah .	...	+·014	...	SW	6	0	...	
Hyderabad (Sind).	29·581	—·064	—·103	SW	15	0	...	
Kurrachee .	·658	—·068	—·069	W	14	0	...	
Jodhpur .	·674	—·015	..	SW	17	0	...	

The above shows that the depression, developed over the South Punjab, had coalesced with the hot weather depression over the Western Desert and that a large low pressure area overlay the region represented by the stations of Sialkot, Khushab, Dera Ismail Khan, Lahore, Ludhiana, Montgomery, Mooltan and Jacobabad. The winds were strongish and cyclonic all over North-West India, but the sky remained generally clear, though there was a good deal of dust haze reported.

May 6th.—The barometer had risen over the greater part of the country. The rise had been brisk to rapid over the North Punjab, while over the Western Desert the barometer had been steady. The following gives 8 A.M. data for this day for the storm area :—

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"				Inch.	
Khushab .	29·603	+·070	—·044	ENE	14	10	0·58	Duststorm with rain.
D. I. Khan .	·647	+·117	—·035	NNE	5	8	0·07	Thunderstorm.
Lahore .	·650	+·119	—·003	E	5	10	0·08	Duststorm with rain.
Ludhiana .	·642	+·097	—·021	N	6	6	0·18	
Montgomery	·581	+·043	—·056	ENE	16	3	0·12	Showery.
Mooltan .	·510	—·024	—·145	E	4	0	0·16	Duststorm with rain.
Sirsa . .	·579	+·024	—·068	NE	6	2	...	
Delhi .	·567	—·026	—·082	W	2	0	...	Hot wind.
Bikaner .	·579	+·005	—·085	SSW	...	0	...	Duststorm.
Jacobabad .	·480	—·029	—·164	NNW	6	0	...	

The above shows that in consequence of the pressure changes the storm over North-West India had intensified considerably, and that very steep barometric gradients existed both to the north and south of the depression. The centre of the depression lay between Jacobabad and Mooltan where pressure was 0·164 inch below the normal. The winds were cyclonic and strong and thunderstorms had given rain to the Punjab plains and to some of the north-west hill stations.

May 7th.—Pressure had increased briskly to very rapidly over North-West India and the depression had partially filled up. The following gives 8 A.M. data for the Punjab, Sind and Rajputana :—

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"				Inches	
Peshawar .	29·802	—·001	+·047	Calm	2	10	1·49	Continuous rain.
Rawalpindi	·769	+·094	+·027	Calm	13	10	0·50	Showery.
Sialkot .	·720	+·083	+·057	SW	9	0	0·07	
Lahore .	·747	+·097	+·087	W	8	0	...	Duststorm.
Ludhiana .	·682	+·040	+·018	Calm	7	6	0·02	
Sirsa . .	·719	+·140	+·065	W	6	2	...	
Delhi .	·687	+·120	+·035	W	5	0	...	Hot wind.
Khushab .	·763	+·160	+·110	SE	23	6	0·35	Duststorm with rain.
D. I. Khan .	·774	+·127	+·080	W	7	10	1·54	Continuous rain.
Mooltan .	·786	+·276	+·118	SW	6	0	0·03	Duststorm with rain.
Montgomery	·764	+·183	+·113	W	17	1	0·08	Ditto.
Jacobabad .	·734	+·254	+·086	SE	9	0	...	Severe nor' wester.
Hyderabad (Sind).	·757	+·140	+·077	NW	14	0	...	
Kurrachee .	·792	+·114	+·065	WNW	12	0	...	Dust haze
Jaipur .	·778	+·093	+·072	WSW	9	0	...	
Sambhar .	·765	+·098	+·081	W	19	0	...	Duststorm.
Ajmer .	·795	+·120	+·072	SW	15	0	...	Ditto.
Bikaner .	·759	+·180	+·081	NNW	...	0	...	Ditto.
Jodhpur .	·787	+·107	...	SW	14	2	...	Ditto.
Kotah .	...	+·086	...	W	11	0	...	Hot wind.

The depression had travelled eastward and lay over the east of the Punjab, where pressure was about normal. The winds were westerly over the Punjab and lighter in force. The weather remained cloudy and unsettled in the

north-west and duststorms and thunderstorms continued to be reported.

Hot weather depression of May 11th to 14th.—The weather remained quiet until the 11th when another shallow depression appeared over the Western Desert. It changed very little during the 12th, but intensified on the 13th, when a small central area of depression appeared near Sirsa. The storm occasioned south-easterly winds over the Gangetic Plain and rain over the Kumaon Himalayas. The following gives 8 A.M. data for the storm area for May 13th:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Mooltan	29·737	+·033	+·099	Calm.	2	0	...	Dust haze.
Montgomery	·733	+·064	+·113	ENE	10	0	...	Ditto.
Ludhiana	·773	+·118	+·118	NE	4	2	...	
Umballa	·792	+·092?	+·151	S	3	0	0·02	Duststorm.
Sirsa	·653	—·010	+·026	NW	6	1	...	
Delhi	·760	+·085	+·104	SSE	7	0	...	
Ranikhet	...	+·043	+·130	Calm.	3	10	0·23	Thunderstorm with hail.
Roorkee	·841	+·125	+·173	SE	5	0	...	Dust haze.
Mussooree	...	+·066	+·134	ESE	...	3	0·04	Thunderstorm.
Meerut	·785	+·082	+·129	SE	2	10	...	Dust haze.
Chakrata	...	—·016	+·168	S	14	8	0·38	Showery.
Agra	·770	+·079	+·113	SE	8	0	...	Duststorm.
Jaipur	·789	+·040	+·118	WNW	4	3	...	
Sambhar	·783	+·037	+.125	NNE	5	1	...	
Ajmer	·806	+·038	+·108	W	7	6	...	
Bikaner	·725	—·006	+·051	WSW	...	0	...	
Jodhpur	·795	+·012	...	SW	16	5	...	
Jacobabad	·720	+·043	+·093	NE	3	5	...	
Hyderabad (Sind.)	·736	+·043	+·084	S	12	0	...	
Kurrachee	·766	+·008	+·059	WNW	10	0	...	

May 14th.—On the 14th the barometer was rising everywhere and the depression had practically disappeared. Rain, however, continued on the hills and had extended to one or two plains stations. The following gives 8 A.M. data for the stations in the north-west which reported rain:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Mooltan	29·790	+·053	+·145	SE	2	0	0·23	Thunderstorm with hail.
Mussooree	...	+·001	+·136	E	...	2	0·04	Gentle wind.
Chakrata	...	+·020	+·188	SE	12	5	0·31	Showery.
Simla	...	+·004	+·142	S	5	10	0·12	Thunderstorm.
Deesa	29·861	+·021	+·128	SSE	13	0	0·05	Thunderstorm.
Bikaner	·798	+·073	+·106	W	...	8	0·03	Distant lightning.
Jodhpur	·853	+·058	...	SSW	28	8	0·07	Thunderstorm.
Jaipur	·873	+·084	+·173	Calm.	5	8	0·14	Ditto.
Kotah	...	+·041	...	ESE	5	1	0·50	Duststorm with rain.
Sutna	29·854	+·078	+·179	S	6	7	0·55	
Bhavnagar-Para.	·870	+·034	+·063	SW	13	0	1·33	Showery.

During the next two days pressure was exceedingly unsteady and the weather unsettled and showery and on the 17th a fresh depression appeared.

Hot weather depression of May 17th to 20th.—The barometer was falling over the greater part of the country on the 17th, the change having been brisk over the Western Desert. The following gives 8 A.M. data for this day for Sind, Western Rajputana and the South Punjab:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Jacobabad	29·573	—·087	—·033	S	6	0	...	
Hyderabad (Sind)	·604	—·077	—·031	SW	10	0	...	
Kurrachee	·664	—·082	—·024	W	15	3	...	
Bikaner	·636	—·047	—·028	SSE	...	3	0·01	Distant lightning.
Ajmer	·700	—·082	+·009	W	8	6	0·06	Duststorm with rain.
Jodhpur	·683	—·072	...	SSE	38	10	0·10	Ditto.
Deesa	·721	—·040	+·003	S	16	0	...	Hot wind.
Delhi	·699	—·031	+·054	Calm.	3	8	...	
Sirsa	·646	—·046	+·022	E	2	0	...	
Patiala	·717	—·030	...	Calm.	4	5	...	
Mooltan	·644	—·037	+·021	Calm.	3	0	...	Dust haze.
Montgomery	·651	—·041	+·038	E	13	0	...	Ditto.

The above shows that pressure was in slight defect of the normal over the Western Desert and in excess elsewhere. The winds were cyclonic and showers had fallen over the hills and plains of North-West India.

May 18th.—Pressure had increased generally. The change had been greater over the Punjab than over the Western Desert, and the depression had intensified somewhat. The following gives 8 A M. data for this day for the Punjab, Rajputana and Sind :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Peshawar .	29·799	+·080	+·097	Calm.	1	0	...	
Sialkot .	·841	+·152	+·195	Calm.	3	9	0·07	
Khushab .	·804	+·115	+·203	ENE	11	6	...	
Lahore .	·835	+·153	+·203	Calm.	3	5	0·07	Dust haze.
Montgomery	·774	+·123	+·157	E	12	0	...	Duststorm.
Ludhiana .	·803	+·123	+·157	N	5	8	0·03	Thunder-storm.
Umballa .	·791	+·091	+·178	SE	4	5	...	Distant lightning.
Delhi .	·782	+·083	+·139	E	8	2	0·16	Duststorm with rain.
Sirsa . .	·717	+·071	+·088	NE	6	0	0·53	
Mooltan .	·750	+·106	+·126	SSE	4	0	...	Duststorm.
D. I. Khan .	·750	+·076	+·105	NNE	4	0	...	Dust haze.
Bikaner .	·702	+·066	+·037	SSE	5	5	0·11	Duststorm with rain.
Jaipur .	·784	+·092	+·093	ENE	7	10	0·23	Duststorm with rain.
Sambhar .	·791	+·098	+·109	SE	9	6	0·41	Duststorm with rain.
Ajmer .	·781	+·081	+·075	S	7	10	0·05	Duststorm with rain.
Jodhpur .	·759	+·076	...	SSW	11	0	...	Duststorm.
Jacobabad .	·669	+·096	+·061	E	5	0	...	
Hyderabad (Sind).	·675	+·071	+·041	SW	14	5	...	
Kurrachee .	·756	+·092	+·070	WSW	16	7	...	

The above shows that pressure was above the normal everywhere, even in the depression area, but the weather was unsettled and showery.

May 19th.—The barometer had changed irregularly. The depression was still shown over Upper Sind with steepish gradients on its north and east sides. The following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inch.	
Mooltan .	29·848	+·098	+·229	N	3	0	...	Dust haze.
Montgomery	·826	+·052	+·216	ENE	18	0	...	Severe gale.
Lahore .	·870	+·035	+·234	W	4	10	0·07	Dust haze.
Ludhiana .	·873	+·070	+·240	W	4	8	...	
Delhi .	·842	+·060	+·206	SE	5	0	...	
Sirsa . .	·764	+·047	+·145	SE	6	1	...	
Bikaner .	·751	+·049	?+·107	ESE	...	0	...	Dust haze.
Ajmer .	·881	+·100	+·184	SE	6	4	...	
Jodhpur .	·796	+·037	...	SSW	7	0	...	Hot wind.
Jacobabad .	·737	+·068	+·135	E	6	0	...	
Hyderabad (Sind).	·768	+·093	+·141	SW	13	0	...	
Kurrachee .	·819	+·063	+·141	WSW	14	2	...	

The above shows that pressure was in considerable to large excess over Northern India, and that the depression in consequence was not developing.

May 20th.—On this day there had been an increase of pressure over the Western Desert, while there had been a decrease over other parts of Northern India. Hence the depression had practically disappeared and the weather improved.

On the 24th another shallow depression appeared over the Punjab. The barometer was falling slowly on this day and the weather was very hot. On the following day a depression had appeared.

Shallow depression of the 25th to the 27th.—The barometer had been steady or had fallen over the south of the Punjab and the adjoining parts of Rajputana, while it had risen briskly in the North Punjab.

The shallow depression was shown over the Hissar division of the Punjab, while steep gradients prevailed in the North Punjab. The following gives 8 A.M. data for the depression area :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"					
Jacobabad .	29·607	+·059	+·033	W	9	0	...	Duststorm.
Mooltan .	·574	+·045	—·013	NNE	3	0	..	Duststorm.
Montgomery	·558	+·033	—·011	NNE	12	0	...	Gale.
Khushab .	·616	+·013	?+·056	S	11	0	...	Dust storm.

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"				Inch.	
Sialkot	29·576	+·075	—·004	N	5	0	0·01	
Lahore	·531	+·011	—·043	NE	4	0	...	Dust haze.
Ludhiana	·558	+·055	—·030	NE	3	2	...	
Umballa	·577	+·054	+·034	Calm.	3	0	...	Hot wind.
Sirsa	·561	+·006	—·015	NE	8	1	...	
Delhi	·584	+·005	—·009	Calm.	7	5	...	Duststorm.
Bikaner	·553	—·010	?—·043	WNW	10	0	...	Dusthaze.
Mainpuri	·599	+·038	?+·037	Calm.	5	6	...	
Bareilly	·556	+·034	—·034	NW	5	6	...	
Meerut	·556	+·038	—·033	NW	4	10	...	Dust haze.
Roorkee	·572	+·054	—·022	Calm.	5	0	...	Hot wind.
Dehra Dun	·596	+·062	—·024	NNE	3	0	0·06	Thunder storm.

The heat was very great over the Punjab at this time. This is shown by the following data :—

STATION.	VARIATION FROM NORMAL OF		
	Maximum temperature, 25th May.	Minimum temperature, 25th May.	Mean temperature, 25th May.
	°	°	°
Lahore	+9·2	+11·9	+10·6
Mooltan	+8·3	+10·9	+ 9·6
Sialkot	+8·4	+ 8·9	+ 8·7
Sirsa	+4·0	+13·1	+ 8·6
Ludhiana	+6·2	+11·0	+ 8·6
Dera Ismail Khan	+5·8	+ 6·2	+ 6·0
Rawalpindi	+7·1	+ 1·9	+ 4·5
Delhi	+4·1	+ 4·6	+ 4·4
Montgomery	+1·0	+ 7·5	+ 4·3
Umballa	+3·6	+ 4·8	+ 4·2
Khushab	+3·1	+ 1·6	+ 2·4
Peshawar	+3·3	+ 0·8	+ 2·1

May 26th.—On the 26th the barometer was rising over the west and centre of the Punjab and the depression had travelled eastward. The following gives 8 A.M. data for the depression area :—

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"				Inch.	
Ludhiana	29·591	+·033	+·005	E	6	0	0·05	
Umballa	·614	+·037	+·066	NW	2	0	...	Distant lightning.
Sirsa	·556?	?—·005	?—·016	SE	6	2	...	Duststorm.
Delhi	·595	+·011	+·014	E	3	0	...	Duststorm.
Agra	·603	+·002	+·012	NE	6	0	0·10	Duststorm with rain.
Mainpuri	·591	—·008	+·038	Calm.	3	8	...	
Bareilly	·618	+·062	+·026	SE	1	0	...	
Meerut	·580	+·024	—·004	E	2	10	...	Dust haze.
Roorkee	·604	+·032	+·013	Calm.	3	0	...	Thunder-storm.
Dehra Dun	·621	+·025	—·005	NE	3	0	0·06	Nor'wester with rain.

There had been some showers over the Punjab hills and plains, which had reduced temperature, but on the whole the depression was slight and of little importance.

May 27th.—Pressure had changed slightly and irregularly and remained above the normal average everywhere. The depression had continued to drift slowly eastward and lay over Agra, Mainpuri and Nowgong.

The following gives 8 A.M. data for the depression area :—

STATION.	PRESSURE.			WIND.				WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"					
Agra	29·592	—·011	+·011	SW	3	0	...	Dust haze.
Jhansi	·604	—·038	+·011	Calm.	3	0	...	
Nowgong	·599	—·006	+·015	S	2	4	...	Dust haze.
Mainpuri	·593	+·002	+·049	Calm.	1	0	...	
Bareilly	·622	+·004	+·034	E	3	0	...	
Meerut	·602	+·022	+·025	E	1	10	...	

The weather was clearing in the north-west and rain had practically ceased. During the day the depression filled up.

On the 29th another depression appeared in the north-west, but it was never of any importance and the month closed with quiet weather and a rising temperature.

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

The weather was unusually disturbed in April and the first fortnight of May. A heavy fall of snow occurred on the 9th and 10th of April, and there were frequent falls until the middle of May.

The snowfall accumulation at the close of May 1900 was probably nowhere in large excess and was about normal in the Kashmir, Bushahr, Kumaon and Garhwal Himalayas, and in Baluchistan, and was probably less than usual in the Afghan and Chitral mountains.

The following is a statement of the information relating to the snowfall in the Himalayan and Afghan mountain areas for the month of May 1900, received up to date.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1) *Killa Drosh.*—There was a slight fall of snow on the tops of the highest mountains on May 6th and a good fall on the highest mountains on the 7th.

(2) *Killa Drosh.*—The Superintendent of the Drosh Observatory reports as follows:—

"There have been 38 recorded falls of snow during the year of which there were:—

10 in December 1899.
7 in January 1900.
5 in February 1900.
2 in March 1900.
2 in April 1900.
2 in May 1900.

"These snowfalls were general and extended over the whole of the Chitral district from the Lowari Pass to the Shandur Pass. The snowfall during the past winter has been much heavier than for very many years previously."

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Murree.*—No snow fell at Murree or on the adjacent hills during the month.

(2) *Kulu.*—The following report has been received from the Assistant Commissioner. There were falls of rain on the 7th, 8th, 17th, 19th and 26th in the Kulu Tahsil, and on the 6th, 7th, 8th, 9th, 15th, 16th, 17th, 18th, 19th, 22nd and 26th in the Plach Tahsil. During these falls of rain there were light falls of snow on the high passes and peaks. These falls did not descend below an elevation of 12,000 feet.

The Rotang Pass was not open for animals at the close of the month. The general snowfall of the month was heavier than usual.

The following table shows the reported depth of snow on the higher passes of the sub-division at the close of the month:—

NAME OF TAHSIL.	Name of pass.	Elevation.	Depth of snow at the end of May 1900.
		Feet.	Feet.
KULU	Rotang	13,000	15
	Hamta	14,500	½
	Barsai	?	½
	Bujadhar	?	2
	Chandarkhani	14,500	3
	Lohriachhril	?	3
PLACH	Sirikhand	15,000	5
	Gargarason	17,000	1
	Tirath	?	1

(3) *Simla.*—The Deputy Conservator of Forests, Bushahr Division, reports that during May snow fell on passes above 10,000 feet as follows:—

7th . . . 2 feet.
8th . . . 1½ "
9th . . . 2 "
22nd . . . ½ foot.

The depth of snow on the different passes at the close of the month was reported to be as follows:—

Rupin Pass	Borenda	Shatul
10 feet.	10 feet.	8 feet.
Bulder	Runang	Harrang
10 feet.	5 feet.	6 feet.

Except the Harrang and Runang all passes were still closed on May 31st. The country people affirmed that the snow in May 1900 continued to fall in larger quantities than they can remember for years past.

(4) *Kailang.*—The Superintendent of the Observatory reports as follows about the weather in April and the first half of May:—

During April snow fell in larger quantities than usual.

The passes, and especially the Rotang Pass, were closed to the post runner throughout. More or less heavy thunderstorms and two duststorms occurred during the period. The snow was melting very rapidly even on peaks of about 13,000 feet in elevation.

The following table shows the amount of snow and rain received during the month :—

DATE.	Amount of precipitation measured as rainfall.	Amount of snowfall.
	Inches.	Inches.
2nd April	0·08	...
3rd "	2·04	12¾
4th "	0·90	7½
6th "	0·44	4½
7th "	0·41	4½
9th "	0·39	...
10th "	0·53	6½
14th "	0·36	...
15th "	0·40	...
16th "	0·14	...
20th "	0·16	...
22nd "	2·67	...
23rd "	0·08	...
24th "	0·35	...
3rd May	0·12	...
6th "	0·60	...
7th "	0·84	...
8th "	1·06	...

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

(1) The Deputy Collector, Garhwal, reports that snow fell on the 7th, 16th, 22nd, 30th and 31st in the region of perpetual snows, and their vicinity. The snow line descended to about 12,000 feet, where the depth of snow varied from 1 to 3 feet. The snow falls were unusually heavy and late for the time of year.

(2) *Almora.*—The Deputy Commissioner, Almora, sends the following report as to the falls and depth of snow in the Almora district during May 1900 :—

Snow fell as follows :—

Malla Danpur.

16th and 17th May 1900 . 6 inches.
25th to 27th May 1900 . 3 "

Malla Johar.

16th May . . . 3 feet.

Mallas, Byans, Chandans and Darma.

7th and 8th May . . 1 foot.
17th and 18th May . . ½ "

Summary of the snowfall data of the cold weather of 1899-1900.—The following is a summary of the snowfall data of the cold weather 1899-1900. The chief features of the snowfall of the cold weather were :—

(1) The winter commenced somewhat later than usual in Afghanistan and Baluchistan. Weather was unusually fine and free from winter storms in Afghanistan and Baluchistan in November and December, and this period was characterized by abnormal dryness of the air and absence of cloud in the hill districts of Upper India.

(2) The number of cold weather disturbances in November and December was less than usual. Most of the storms in this period were of very slight intensity. A large number of storms formed in January. They advanced along more southerly tracks than usual and failed to give rise to well marked secondary depressions in the Punjab. The precipitation accompanying them was hence generally small in amount. Two storms, those of the 15th to 19th January and 20th to 24th January, were severe and gave heavy and general snowfall in the Western Himalayas. The snowfall up to the end of January in that area was generally below the normal and was nowhere excessive.

(3) The number of depressions in the period February to April was much larger than usual. Baluchistan, Afghanistan, the Punjab hills and Kashmir had frequent light to moderate precipitation during these months. A disturbance of moderate intensity extending from the 7th to the 10th April gave moderate to heavy snow in the Afghan mountains, Chitral, Kashmir and the Punjab Himalayas. The snowfall during the period from February to April was in moderate to considerable excess in the Western Himalayas, chiefly due to late and abnormally heavy falls in April, the excess being probably most marked on the interior and higher ranges.

(4) The chief feature of the season was the frequent snowfall in April over the whole of the Western Himalayas west of Kumaon. The fall was very heavy in the Chitral, Kashmir and Punjab hills. Snow fell down occasionally to unusually low levels in April (5,000 feet) and caused extensions of the snow-clad surface in the hills for brief periods which affected the meteorological conditions in Upper India. The snow melted very rapidly during the hot weather of the last fortnight of May, and the snow-line on the 31st of May was at a mean elevation of from 13,000 feet to 14,000 feet in the Punjab Himalayas and 15,000 feet in Ladakh.

(5) The snowfall of the past season up to the end of May was, so far as can be judged from the data, below the normal to a moderate extent in Persia and in moderate to considerable defect in Afghanistan.

(6) The snowfall in Baluchistan was normal in amount and fell between December and March. It was hence favourable in all respects.

(7) The precipitation in Afghanistan was generally less than usual. There was, however, a very heavy fall in the

Khyber pass districts and an exceptionally late and heavy fall in Tirah in the second week of April.

(8) The snowfall in Chitral was, so far as can be judged by a comparison of the past year with the previous three years, below the normal to a moderate extent.

(9) The snowfall was heavier than usual in Kashmir. It commenced on the higher ranges somewhat earlier than usual. The chief feature was the heavy and late fall of the 9th and 10th April.

(10) In Chamba, Lahoul and the Simla Hill states the early part of the winter was exceptionally dry. Moderately heavy snow fell in January and February and unusually heavy and frequent snow in April. The total snowfall of the season appears to have been about the average or slightly above in Chamba and (perhaps) the Simla Hill states and considerably below it in Lahoul.

(11) The early winter months of October and November and the greater part of December were abnormally dry and fine in Kumaon and Garhwal. During the remainder of the winter the fall was considerably heavier than usual and the total fall of the season was above the normal to a moderate extent.

(12) No information has been received for Sikkim and Nepal.

(13) The information, relative to the snowfall in the Assam Himalayas, is as usual scanty, but appears to indicate that the fall was considerably heavier than usual to the north of Upper Burma and the Upper Assam Valley.

Summary of Special Storm Reports.

The following gives the chief local storms and earthquakes of which reports were received during the month. The storms were of the ordinary hot weather type, but they were perhaps more numerous than usual and the wind during the storms, especially in parts of Rajputana, was unusually strong. Hailstorms do not appear to have been very numerous in Assam, but the weather was unusually disturbed over the North-West Himalayas :—

3rd May.—A severe duststorm passed over Jodhpur at 6-22 P.M. No lightning was seen or thunder heard, but the wind was very strong and much damage was done.

A duststorm commenced at Allahabad at 3 P.M. and lasted till 7 P.M. The wind gusts were of the strength of 34 miles per hour, but there was no lightning, thunder or rain.

Duststorm at Puri at 5·30 P.M., lasting 45 minutes. The rainfall was heavy, amounting to 2·15 inches, while the wind in gust blew with a velocity of 55 miles per hour.

5th May.—A severe duststorm occurred at Srinagar between 3 P.M. and 8 P.M. Rain followed the storm.

6th May.—A thunderstorm was experienced at Lahore between 1-15 P.M. and 3 P.M. There was light rain.

A duststorm occurred at Allahabad between 8 P.M. and 10 P.M. A remarkable current of warm air was felt during the middle of the storm.

7th May.—A thunderstorm was reported at Simla between 6-45 P.M. and 8 P.M. Heavy showers of hail occurred. The winds were light. A duststorm passed over Srinagar between 9 A.M. and 2 P.M. with heavy rain and strong winds. The darkness was very intense.

8th May.—There was a thunderstorm at Simla between 2-30 P.M. and 4 P.M.

A severe nor'wester passed over Burdwan at 6-44 P.M. and lasted 36 minutes.

Thunderstorm at Allahabad commenced at 1-20 P.M. and lasted 20 minutes. The storm reappeared at 6-30 P.M. and lasted till 9-45 P.M.

Thunderstorm at Jaipur from 17-35 to 17-50.

9th May.—A violent duststorm crossed over Boalia at 10-35 P.M. coming up from south-west and lasting 10 minutes.

A violent duststorm was also experienced at Burdwan at 8-45 P.M. It came up from west and lasted 45 minutes.

11th May.—A severe nor'wester accompanied with rain commenced at Burdwan at 11-10 A.M. and lasted 40 minutes. Later in day at 5-30 P.M. another nor'wester occurred lasting 30 minutes.

12th May.—A very violent squall passed over Srinagar at 4-30 P.M. and lasted half an hour.

13th May.—A duststorm visited Delhi at 5-25 P.M. and lasted 25 minutes. It was followed by rain.

A duststorm passed over Pachmarhi at 4-8 P.M. lasting only 5 minutes.

A thunderstorm with lightning and rain passed over Jodhpur at 1-37 P.M. Another storm with rain came on at 5-2 P.M.

14th May.—A severe nor'wester passed over Jodhpur at 4-5 P.M. It rained heavily for about 12 minutes.

A severe duststorm was experienced at

Hoshangabad at 7-15 P.M. It lasted only 10 minutes.

A thunderstorm occurred at Jaipur between 2-42 P.M. and 3-2 P.M. There was slight drizzling rain.

A thunderstorm occurred at Simla between 1 P.M. and 2-30 P.M.

15th May.—A thunderstorm occurred at Simla. It commenced at 5 P.M. and continued till 6 P.M. Heavy rain fell, but the wind was light.

At Hoshangabad at 7-30 P.M. a thunderstorm was reported. The storm lasted 20 minutes.

A thunderstorm passed over Jodhpur. It commenced at 4-54 P.M. and lasted 43 minutes. The storm came up from north-west and there was very little rain. Later in the evening at 9-7 P.M. another storm passed over the station, giving light rain.

A thunderstorm burst over Allahabad at 8 P.M. and lasted till 11 P.M.

A duststorm occurred at Cawnpore at 11 P.M.

16th May.—A nor'wester passed over Allahabad. It commenced at 7-30 P.M. and lasted till 10-30 P.M. The storm appeared very suddenly and the wind in the gusts eached 60 miles per hour.

nor'wester with rain was experienced at Jodhpur at 6-52 A.M. It lasted 20 minutes and was followed by light rain.

A duststorm occurred at Khandwa between 2-15 and 2-25 P.M.

A duststorm visited Pachmarhi at 6-47 P.M. and lasted 10 minutes.

A violent duststorm passed over Boalia from north-west at 2-15 P.M. and lasted 20 minutes.

At Jodhpur a severe duststorm was experienced at 4-12 P.M. The storm lasted about one hour and a few showers followed.

A thunderstorm occurred at Srinagar between 4 and 6 P.M.

At Hoshangabad a very heavy duststorm occurred travelling from west to east. Light rain fell after the storm.

At Simla a thunderstorm was experienced between 5-10 P.M. and 6-35 P.M. Rain and hail fell.

A duststorm visited Ajmer at 5-10 P.M. and lasted about an hour. It was followed by showers.

17th May.—There was a duststorm at Pachmarhi at 11 P.M. The storm lasted only five minutes.

A thunderstorm of considerable intensity visited Allahabad, lasting from 4 P.M. to 9 P.M.

A thunderstorm prevailed at Simla from 11-15 A.M. to 1 P.M.

A duststorm prevailed at Hoshangabad at 4-30 P.M., lasting 10 minutes.

A thunderstorm prevailed at Patiala from 3-45 to to 4-45 P.M.

18th May.—At 1 A.M. Ajmer was visited by a duststorm with strong winds and followed by a light shower.

A storm passed over Srinagar between 9-30 and 9-45 A.M. with heavy rain.

19th May.—A heavy duststorm prevailed at Hoshangabad from 5 P.M. to 5-25 P.M.

A thunderstorm was experienced at Ajmer at 7-28 P.M. and lasted till 7-53 P.M.

A violent duststorm came up from west at Jacobabad at 5-30 P.M. and lasted 2 hours

At Pachmarhi there was a duststorm at 7-5 P.M., lasting 3 minutes.

A severe local storm passed over Agra between 6 A.M. and 8 A.M.

A severe nor'wester passed over Jodhpur from north-west between 6-37 and 7-2 P.M., and another storm at 7-42 P.M.

A storm came up over Jaipur from north-west at 9 P.M.

20th May.—A thunderstorm with rain broke over Jodhpur at 6-37 P.M.

At Hoshangabad a storm began at 8-10 P.M. and lasted 25 minutes. A few drops of rain fell.

22nd May.—Between 2 and 4 P.M. a very heavy duststorm with strong winds passed over Hoshangabad.

23rd May.—A violent duststorm was experienced at Jacobabad at 1 A.M. It came up from west and lasted 30 minutes. A thunderstorm passed over Ispahan between 4-15 and 5-30 P.M.

24th May.—A duststorm occurred at Saugor between 3-8 and 3-35 P.M.

A duststorm came up over Delhi from west-south-west at 4 P.M.

A violent duststorm passed over Jacobabad at 8 P.M. A few drops of rain fell.

At 3-22 P.M. a severe duststorm passed over Hoshangabad. The storm lasted 20 minutes. A duststorm occurred at Srinagar between 9 P.M. and 11 P.M.

A thunderstorm occurred at Jaipur between 4-40 P.M. and 6 P.M.

25th May.—A thunderstorm was reported at Srinagar between 6 and 7 P.M. with heavy rain.

A duststorm at Jacobabad at 5 P.M.

A heavy duststorm occurred at Hoshangabad at 1-30 P.M. The storm passed from north to south.

26th May.—A very heavy duststorm passed over Hoshangabad from north to south at 2-10 P.M. It lasted about half an hour.

A small duststorm occurred at Allahabad, between 6 A.M. and 8 A.M.

There was a duststorm at Agra at 4-50 P.M.

27th May.—A severe nor'wester with rain was experienced at Burdwan at 6 P.M. lasting half an hour.

28th May.—A violent duststorm passed over Kurnool at 5-30 P.M. The storm came up from north-east and lasted till 5-55 P.M.

30th May.—A severe nor'wester occurred at Burdwan. The storm commenced at 6 P.M. and lasted half an hour. A second storm passed over the station at 8 P.M., lasting 40 minutes.

A duststorm was reported from Jodhpur. The storm came up from south-west. It commenced at 9-47 P.M. and lasted for one hour. At Jaipur a thunderstorm occurred between 2-30 and 2-50 P.M.

31st May.—A severe duststorm at Delhi at 6-30 P.M., lasting 30 minutes.

A thunderstorm occurred at Gulmarg, lasting from 11 A.M. to 2-30 P.M.

The following reports of hailstorms have been received.

12th May.—A hailstorm occurred at Narasapatam in the Vizagapatam district at 4 P.M.

In the Darrang and Nowgong districts of Assam there were hailstorms which did injury to the crops in the first week of May.

In Kulu there was a hailstorm on the 12th. The storm only lasted about 10 minutes, but the stones were about the size of hazelnuts and did some damage.

13th May.—A hailstorm occurred in the Labdaria, Nasirabad, Mehar, Kakar, Dadu and Jahi Talukas of the Nara district in Sind. It commenced at 4-30 P.M. and lasted about four minutes. The hailstones varied in size from a pea to an egg. Many cattle were killed. The storm travelled from south-west to north-east.

19th May.—A hailstorm occurred at Dungargarh in Bikaner. The hailstones were from ¼ to ½ inch in diameter.

20th May.—An exceptionally severe hailstorm occurred at Jambulwadi (Belgaum) and lasted 45 minutes. The hailstones were 1½ inch in diameter.

21st May.—A very heavy hailstorm was experienced at Palla Badami Road (Dharwar) at 5-30 P.M. and lasted four minutes.

A hailstorm occurred at Kot Umchigi Gajudragad Road (Dharwar) lasting 15 minutes.

23rd May.—A slight hailstorm occurred at Godag (Dharwar) and lasted only five minutes.

A hailstorm passed over the Sudder Sub-Division of Sibsagar. The hailstones were in certain cases of the size of an orange.

24th May.—A hailstorm of short duration occurred in the Nasirabad Taluka, but did no damage.

Earthquake Reports:—At Srinagar at 2 minutes to 1 P.M. on the 2nd there was an earthquake shock lasting about 12 seconds. At Abbottabad also this earthquake was felt. The shock was rather violent. On the 8th of May there was a very sharp shock of earthquake at Kulu at 10-30 A.M. lasting from 15 to 18 seconds.

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

Arabian Sea.—Ordinary westerly winds of indraught obtained steadily throughout the month along the Indian Coast. Winds were exceedingly irregular over the rest of the sea, except the extreme south where west to north-west winds were experienced during the first ten days of the month. The air motion over the Arabian Sea was hence very abnormal in character during the month, the chief features being its feebleness and variability over the centre, south and west.

In years of ordinary conditions, temporary advances of moist monsoon winds occur over the south of the Arabian Sea during the second fortnight of the month but during the month under review that region was occupied by light unsteady winds, chiefly from some northerly direction.

Thus the S.S. *Clan Monroe* experienced light north-east airs of force, in Latitude 9½° N. and Longitude 66½° E. on the 25th and the *Workman* light winds from the north in Latitude 8½° N. and Longitude 71° E. on the 28th,—conditions suggestive of a considerable delay in the advance of the monsoon current. Winds were above their normal strength on only one occasion during the month, *viz.*, on the 4th, and the mean air movement of the whole month was hence 0·5 below the normal.

Bay of Bengal.—At the beginning of the month ordinary sea breezes obtained along the coasts, westerly winds in the extreme south and very variable winds over the remainder of the Bay. The mean intensity of the air movement, as deduced from the wind data of 24 vessels, was only 2·0 or 1·0 below the normal. Weather was feebly disturbed in the region of westerly winds and was fine elsewhere. Winds strengthened rapidly during the day more especially in the south and on the morning of the 2nd averaged 3·0 in force. They were generally unchanged in direction except in the south, where south-westerly winds of forces 4 to 6 had set in. These humid south-westerly winds began to work up the east of the Bay during the day and by the morning of the 3rd prevailed over the whole of that region to the south of Lat. 13° N. Weather was very unsettled in the south and south-east with heavy squalls, incessant heavy rain and a high sea and was fine over the remainder of the Bay. There was a tendency to the formation of a storm in front of the advancing humid current over the east of the sea during the next two days. Weather was hence more or less squally and rainy over the Andaman Sea on the 4th, 5th and 6th but the disturbance was throughout feeble and ill-defined. Stronger winds than usual, chiefly from between south and west, obtained over the Bay from the 5th to the 12th. The strongest winds during this period were of force 9 experienced by the S.S. *Kistna* in Lat. 19° N, and Long. 90½° E on the 7th. Winds decreased to an average of 3·1 on the 13th and to 2·6 on the two following days. They, however, continued fairly normal in direction except at the head of the Bay where abnormal northerly winds were experienced due to peculiar pressure conditions over Bengal. The air movement was normal in character on the 16th and 17th and much lighter than usual during the next three days. This decrease in the strength of the winds was, however, only temporary as winds began to intensify again during the 20th and averaged 3·1 on the 21st and 3·5 on the 22nd. Winds varied considerably in intensity from day to day during the remainder of the month, their average strength ranging between 4·4 and 2·9. They were, however, fairly normal in direction during the period except in the east where light variable airs and calms prevailed from the 27th to the 29th. The air motion over the Bay on the mean of the whole month averaged 3·3 as compared with 3·0, its normal intensity in May.

Equatorial Belt.—There are no data available for the eastern half of this area. In the western half the conditions were very abnormal in character. The south-east trades were very weak and unsteady and their northward extension across the belt was very considerably delayed. This is borne out fully by the data of the Seychelles where abnormal northerly winds were experienced during the greater part of the third week of the month. Winds were approximately normal in direction at Zanzibar, thus indicating that there was no abnormal deflection of the south-east trades current towards East Africa.

Temperature of the Air.

May 1900 was characterised by higher temperatures than usual over the greater part of the Peninsula and of the central districts of India, and by lower temperatures than usual over North-East and North-West India. Temperature conditions were thus in marked contrast to those which prevailed in the same month last year and hot weather conditions were much less strongly marked than usual over Northern India, where the day temperatures were very generally in marked defect of the normal.

The mean maximum or day temperatures were below the normal over Baluchistan, the Punjab, Rajputana, North Bombay, Central India, the North-Western Provinces, the east of the Central Provinces and the west and south-west of Bengal. The deficiency was generally small, but was more than 2° within four areas including the stations for which comparative data are given below:—

Province.	Station.	Mean maximum temperature.		
		Actual, May 1900.	Normal, May	Variation of actual from normal, May 1900.
		°	°	°
Baluchistan	Chaman	91·1	93·8	—2·7
Punjab	Montgomery	104·9	108·6	—3·7
	Khushab	101·7	104·5	—2·8
	Peshawar	95·4	97·8	—2·4
Rajputana and Central India.	Jaipur	103·1	105·5	—2·4
	Neemuch	101·7	103·9	—2·2
North-Western Provinces.	Gorakhpur	97·8	100·5	—2·7
	Bahraich	98·8	101·2	—2·4
	Agra	104·3	106·6	—2·3

In addition to the above the mean maximum or day temperatures of the month were below the normal along part of the West Coast, along the south and central coasts of the Bay and in part of Upper Burma and of Assam. In these regions the deficiency was even smaller than was the case in Northern India and exceeded 2° only at the two following stations:—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	°	°	°
Masulipatam	96·6	99·2	—2·6
Cocanada	98·3	100·7	—2·4

Over the whole of the remainder of India, which included the southern and inland parts of the Peninsula, the Central Provinces, Upper Sind, Bengal (proper), Arakan and Central Burma the mean maximum temperature exceeded the normal. The excess was most marked over the interior of the Peninsula and was more than 2° at the stations for which data are given below:—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, May 1900.	Normal, May	Variation of actual from normal, May 1900.
	°	°	°
Bangalore	95·4	91·2	+4·2
Poona	102·7	98·6	+4·1
Mysore	96·2	92·4	+3·8
Salem	102·5	98·8	+3·7
Chitaldroog	97·6	93·9	+3·7
Secunderabad	106·6	102·9	+3·7
Ahmednagar	103·2	99·5	+3·7
Bijapur	103·5	100·3	+3·2
Belgaum	96·3	93·1	+3·2
Kurnool	107·3	104·3	+3·0
Cuddapah	108·1	105·2	+2·9
Hyderabad (Deccan)	105·6	102·9	+2·7
Sholapur	106·8	104·3	+2·5
Malegaon	105·9	103·7	+2·2
Akola	109·3	107·1	+2·2

In parts of Bengal, Arakan and Burma the excess, though less than in the case of the Peninsula, was moderate in amount and exceeded 2° locally at the following stations:—

PROVINCE.	STATION.	MEAN MAXIMUM TEMPERATURE.		
		Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
		°	°	°
BENGAL	Chittagong	90·6	88·0	+2·6
	Jalpaiguri	89·7	87·6	+2·1
	Calcutta	95·6	93·5	+2·1
ARAKAN	Akyab	94·2	90·5	+3·7
BURMA	Minbu	100·4	97·3	+3·1

The highest day temperatures of the month were recorded earlier in South India and on the West Coast than in Northern India. Thus in South India and along the West Coast the highest maxima of the month were generally recorded during the first ten days, while in the Deccan and Northern India generally, they were recorded in the last week and in the Punjab generally on the last day of the month. The following gives the highest day temperatures recorded in the different divisions of India, together with the highest previously recorded in May.

PROVINCE OR DIVISION.	Station.	Highest maximum temperature recorded in May 1900.	Date on which recorded.	Highest maximum temperature recorded in May previous to 1900.	Year in which recorded.
		°		°	
BURMA	Minbu	106·1	22nd and 23rd	108·1	1894
ASSAM	Silchar	96·6	15th	101·8	1886
BENGAL	Bankura	110·6	25th	117·1	1894
ORISSA	Cuttack	109·0	24th	118·0	1872
CHOTA NAGPUR	Daltonganj	113·1	25th and 31st	116·1	1897
BIHAR	Dehri	111·9	25th	116·3	1897
NORTH-WESTERN PROVINCES AND OUDH.	Allahabad	113·1	31st	117·2	1884 and 1897.
PUNJAB	Sirsa	114·8	13th	121·1	1895
SIND	Jacobabad	122·0	31st	123·0	1888, 1895, and 1898.
RAJPUTANA	Bikaner	112·9	31st	118·3	1898
CENTRAL INDIA	Nowgong	111·5	31st	116·5	1881 and 1883.
GUJARAT	Ahmedabad	112·8	2nd	114·3	1895
BOMBAY DECCAN	Sholapur	110·2	30th	112·2	1890 and 1897
BERAR	Akola	114·5	30th	116·0	1898
CENTRAL PROVINCES.	Chanda	114·7	30th	119·2	1897
WEST COAST	Bombay	92·5	3rd	96·3	1879
SOUTH INDIA	Salem	108·0	9th	108·4	1879
MYSORE	Chitaldroog	104·2	9th	103·0	1897
MADRAS DECCAN	Cuddapah	114·3	8th and 9th	113·3	1889, 18 and 1897.
,, COAST	Nellore	112·8	27th	115·7	1892

The above shows that except in the Madras Deccan and Mysore these maximum temperatures were not so high as have been previously registered.

The mean minimum temperature of the month exhibited a very irregular distribution relatively to the normal. A largish area of slightly deficient night temperature covered Upper Burma, Cachar, the greater part of Bengal (proper) and the Orissa and Madras coast districts. This was the most important area of deficiency, but even in this area the variations from the normal were generally small and only exceeded 1° at the following stations :—

Province.	Station.	Mean minimum temperature.		
		Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
		°	°	°
Upper Burma.	Bhamo . . .	71·1	72·6	−1·5
Cachar . .	Dhubri . . .	71·1	72·2	−1·1
Bengal .	Chaibassa . .	76·6	78·8	−2·2
	Jessore . . .	74·7	76·4	−1·7
	Saugor Island .	79·1	80·5	−1·4
	Dinajpur . .	72·4	73·7	−1·3
	Burdwan . .	76·0	77·2	−1·2
Orissa . .	Balasore . .	76·1	77·9	−1·8
Madras Coast	Cocanada . .	81·3	82·9	−1·6

In addition to the above, small areas of deficient night temperature were shown, one over the Bombay Deccan, a second over Gujarat, a third over the Central Punjab, and a fourth over the submontane parts of the North-Western Provinces. The following gives the largest variation in each of these areas :—

Province.	Station.	Mean minimum temperature.		
		Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
		°	°	°
Bombay Deccan.	Poona . . .	70·8	71·9	−1·1
Gujarat . .	Veraval . .	77·6	78·3	−0·7
Punjab . .	Montgomery . .	77·6	78·0	−0·4
North-Western Provinces, Submontane.	Gorakhpur . .	76·0	76·7	−0·7

Over the whole of the remainder of India the mean minimum temperature of the month was higher than usual The excess was generally slight to moderate and exceeded 2° in three areas. The following gives the variations at the different stations within these areas :—

Area.	Station.	Mean minimum temperature.		
		Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
		°	°	°
First Area .	Sirsa . . .	80·1	76·0	+4·1
	Ajmer . . .	81·6	77·7	+3·9
	Ludhiana . .	77·5	73·8	+3·7
	Delhi . . .	82·9	79·2	+3·7
	Mooltan. . .	79·5	75·9	+3·6
	Jacobabad . .	80·4	76·9	+3·5
	Lahore . . .	75·5	72·2	+3·3
	Jhansi . . .	85·6	82·3	+3·3
	Sialkot . . .	76·9	73·8	+3·1
	Bareilly. . .	78·7	75·6	+3·1
	Bikaner . . .	82·7	79·8	+2·9
	Meerut . . .	77·8	74·9	+2·9
	Sambhar . .	81·0	78·1	+2·9
	Sutna . . .	80·9	78·1	+2·8
	Saugor . . .	80·4	77·6	+2·8
	Khandwa . .	82·5	80·2	+2·3
Second Area	Hyderabad (Deccan)	82·0	77·9	+4·1
	Secunderabad. .	81·0	77·9	+3·1
	Nagpur . . .	83·4	81·0	+2·4
	Chanda . . .	83·8	81·5	+2·3
	Sholapur . .	78·2	76·0	+2·2
Third Area .	Salem . . .	78·8	75·5	+3·3
	Calicut . . .	80·1	77·3	+2·8
	Bangalore . .	71·6	69·1	+2·5
	Cochin . . .	79·5	77·2	+2·3
	Bellary . . .	79·5	77·2	+2·3
	Chitaldroog . .	73·0	70·9	+2·1
	Mangalore . .	80·5	78·4	+2·1

Very cold periods occurred over parts of Northern India on the 7th and 8th and again on 18th and 19th, but in each instance the depression of temperature was much more strongly marked in the day than in the night tem-

peratures, and the following were the only cases in which the variation of the mean minimum temperature from the normal on these dates exceeded 7° :—

DATE.	STATION.	MEAN MINIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
7th May	Montgomery	59·5	74·8	−15·3
,, ,,	Khushab	63·3	75·3	−12·0
,, ,,	Mooltan	62·0	73·3	−11·3
,, ,,	Dera Ismail Khan	61·1	71·4	−10·3
,, ,,	Jacobabad	66·1	75·6	− 9·5
,, ,,	Rawalpindi	60·0	67·2	− 7·2
8th ,,	Montgomery	64·0	75·3	−11·3
,, ,,	Khushab	66·8	75·9	− 9·1
,, ,,	Dera Ismail Khan	63·1	71·9	− 8·8
,, ,,	Peshawar	61·0	68·1	− 7·1
18th ,,	Mainpuri	68·0	80·8	−12·8
,, ,,	Sambhar	67·5	79·2	−11·7
,, ,,	Sutna	69·6	78·6	− 9·0
,, ,,	Bahraich	70·5	79·5	− 9·0
,, ,,	Chaibassa	71·5	80·1	− 8·6
,, ,,	Ajmer	70·6	78·9	− 8·3
,, ,,	Bikaner	72·0	80·2	− 8·2
,, ,,	Delhi	72·1	80·3	−8·2
,, ,,	Cawnpore	71·0	79·0	−8·0
,, ,,	Bareilly	67·7	75·7	−8·0
,, ,,	Agra	73·9	81·6	−7·7
,, ,,	Ranchi	67·9	75·5	−7·6
,, ,,	Nowgong	72·0	79·4	−7·4
,, ,,	Hazaribagh	68·3	75·6	−7·3
,, ,,	Sirsa	69·6	76·9	−7·3
,, ,,	Saugor	71·7	78·8	−7·1
19th ,,	Jaipur	67·1	76·9	−9·8
,, ,,	Khushab	69·8	79·3	−9·5
,, ,,	Sambhar	70·5	79·4	−8·9
,, ,,	Bahraich	72·0	79·5	−7·5

On the hills the night temperature on the mean of the month was very nearly normal. The following gives the lowest minimum temperatures recorded at the Himalayan hill stations during the month, with the lowest previously recorded during May :—

STATION.	Lowest minimum temperature recorded in May 1900.	Date on which recorded.	Lowest minimum temperature recorded in May previous to 1900.	Year in which recorded.
	°		°	
Leh	30·5	10th May.	23·6	1886
Srinagar	46·2	1st	41·8	1898
Skardu	45·2	8th	32·7	1897
Dras	21·6	1st	14·1	1897
Gilgit	50·1	8th	51·1	1898
Chitral	44·5	7th	45·0	1898
Killa Drosh	43·7	6th	48·3	1898
Parachinar	46·7	8th	42·3	1898
Cherat	50·0	8th	47·5	1898
Murree	48·0	7th	32·0	1875
Poo	33·8	8th	38·0	1894, & 1898
Simla	48·8	17th	42·0	1876
Chakrata	46·7	8th	37·2	1896
Mussooree	51·5	7th	41·0	1891
Ranikhet	51·0	8th	42·7	1871
Muktesar	46·0	9th	44·8	1897
Yatung	32·9	2nd	32·9	1895
Darjeeling	45·0	10th	38·8	1882
Gantok	36·4	10th and 11th	39·8	1898

The mean temperature of the month of May 1900 was in defect over Baluchistan, the Central Punjab, Gujarat, the Gangetic Plain, South-West Bengal, Upper Assam and the coasts of the Bay. The deficiency was almost everywhere small and exceeded 1° in amount only in the following areas and at the following stations :—

PROVINCE.	STATION.	MEAN DAILY TEMPERATURE.		
		Actual, May 1900.	Normal. May.	Variation of actual from normal. May 1900.
		°	°	°
BALUCHISTAN	Chaman	77·8	79·7	−1·9
PUNJAB	Montgomery	91·3	93·4	−2·1
	Khushab	89·3	90·8	−1·5
	Peshawar	82·5	83·6	−1·1
GANGETIC PLAIN	Gorakhpur	86·9	88·6	−1·7
	Bahraich	87·6	88·9	−1·3
BENGAL	Burdwan	86·0	87·3	−1·3
ORISSA	Balasore	85·5	86·8	−1·3
MADRAS COAST	Cocanada	89·9	91·9	−2·0
	Masulipatam	89·1	90·3	−1·2

Over the remainder of India the mean temperature was in excess. The excess amounted to between 1° and 1½° over the greater part of the area of excess, but was more than 2° over the south-west and centre of the Peninsula and over Upper Sind and the South-West Punjab as well as locally at Lahore. The following gives comparative data for the stations in these areas :—

Province.	Station.	Mean daily temperature. Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
		°	°	°
Peninsula	Salem	90·6	87·1	+3·5
	Bangalore	83·5	80·1	+3·4
	Secunderabad	93·8	90·4	+3·4
	Hyderabad (Deccan).	93·8	90·4	+3·4
	Chitaldroog	85·3	82·4	+2·9
	Mysore	83·9	81·1	+2·8
	Kurnool	94·8	92·4	+2·4
	Sholapur	92·5	90·1	+2·4
	Calicut	85·7	83·6	+2·1
	Cochin	85·3	83·2	+2·1
Upper Sind	Jacobabad	96·3	93·7	+2·6
Punjab	Mooltan	92·8	90·3	+2·5
	Lahore	89·9	87·4	+2·5

At the northern hill stations the variations of the mean temperature from the normal were generally slight and rather irregular, but at Cherat there was a considerable deficiency. This is shown below :—

Station.	Mean daily temperature. Actual, May 1900.	Normal, May.	Variatio of actual from normal, May 1900.
	°	°	°
Cherat	74·5	78·6	—4·1
Srinagar	62·6	64·0	—1·4
Chakrata	63·5	64·9	—1·4
Murree	66·4	67·4	—1·0
Simla	63·6	64·5	—0·9
Mussooree	66·1	66·5	—0·4
Ranikhet	68·4	68·2	+0·2
Leh	50·7	50·2	+0·5

At the central and southern hill stations the temperature on the mean of the month was in slight excess. The following gives comparative data :—

Province.	Station.	Mean daily temperature. Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
		°		
Central India Hill station.	Pachmarhi	86·0	84·6	+1·4
Southern India Hill station.	Wellington	68·9	67·0	+1·9

The following gives temperature data for 56 meteorological divisions of the Empire :—

Province.	Division.	Actual Temperature. Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Variation from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	89·1	76·8	83·0	12·2	21·1	—0·5	+0·6	—1·1
	Lower Burma (Deltaic)	90·7	79·0	84·9	11·6	21·7	—0·6	+0·9	—1·5
	Central do.	99·0	77·6	88·3	21·5	36·1	+1·2	+0·6	+0·6
	Upper do.	97·1	75·4	86·2	21·7	35·3	+0·4	—1·1	+1·5
Bengal and Assam	Eastern Bengal	91·4	74·0	82·7	17·4	27·0	+1·5	—0·6	+2·1
	Assam (Surma)	89·9	71·7	80·8	18·2	28·3	+1·9	—0·4	+2·3
	Do. (Brahmaputra)	86·3	71·6	79·0	14·7	25·9	+0·2	—0·6	+0·8
	Deltaic Bengal	94·8	75·9	85·4	18·9	30·5	+0·9	—1·3	+2·2
	Central do.	96·2	75·4	85·8	20·8	38·3	+0·1	—0·8	+0·9
	North do.	90·4	71·7	81·0	18·7	29·1	+2·0	—0·3	+2·3
	Bengal Hills	65·1	43·0	54·0	22·1	31·3	+1·3	—0·8	+2·1
	Orissa	93·7	78·8	86·3	14·9	27·7	—0·3	—0·7	+0·4
	Chota Nagpur	100·1	75·8	88·0	24·3	41·0	—0·9	+0·2	—1·1
	South Bihar	101·6	78·9	90·3	22·7	38·7	—0·8	—0·3	—0·5
	North do.	96·6	75·0	85·8	21·5	36·2	+0·6	—0·4	+1·0

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Variation from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	North-Western Provinces (East)	104·2	79·5	91·8	24·7	41·8	−1·3	+0·9	−2·2
	Oudh (South)	104·5	77·4	90·9	27·1	45·0	?	?	?
	Do. (North)	98·8	77·5	87·6	21·3	35·3	−2·4	−0·2	−2·2
	North-Western Provinces (Central)	105·6	81·5	93·6	24·1	41·3	−1·6	+1·8	−3·4
	Do. do. (West)	103·9	80·2	92·1	23·7	38·8	−2·3	+1·9	−4·2
	Do. do. (East Submontane)	97·8	76·0	86·9	21·8	38·5	−2·7	−0·7	−2·0
	Do. do. (West do.)	99·8	74·5	87·2	25·2	42·7	−0·3	+2·1	−2·4
	Do. do. (Hills)	73·7	56·8	65·3	16·9	33·6	−1·4	+0.4	−1·8
Punjab	Punjab (South-East)	103·0	82·9	93·0	20·1	38·6	−1·3	+3·7	−5·0
	Do. (South)	103·6	80·0	91·8	23·6	42·8	−1·5	+4·1	−5·6
	Do. (Central)	104·4	75·5	89·9	28·9	47·2	+1·6	+3·3	−1·7
	Do. (Submontane)	103·1	77·2	90·2	25·9	42·3	−0·1	+3·4	−3·5
	Do. (Hills)	74·9	52·2	63·6	22·7	42·4	−1·9	−0·8	−1·1
	Do. (North)	95·8	69·4	82·6	26·5	45·5	−1·7	+0·9	−2·6
	Do. (West)	103·4	77·0	90·3	26·4	50·9	−1·6	+0·9	−2·5
Bombay and Malabar Coast Districts (Madras).	Malabar	90·1	79·9	85·1	10·2	17·8	+1·3	+2·4	−1·1
	Madras (South Central)	99·1	77·1	88·1	22·1	32·3	+2·3	+2·6	−0·3
	Coorg	83·6	66·0	74·8	17·6	26·8	+2·6	+1·5	+1·1
	Mysore	95·4	71·0	83·2	24·4	34·6	+3·9	+2·1	+1·8
	Konkan	89·8	80·5	85·2	9·3	13·3	−0·3	+0·5	−0·8
	Bombay Deccan	102·4	73·0	87·7	29·4	38·3	+3·3	+0·4	+2·9
	Hyderabad (North)	107·5	82·2	94·9	25·3	33·4	...	...	...
	Khandesh	104·6	73·0	88·8	31·6	42·3	+3·0	−0·2	+3·2
Central Provinces and Berar.	Berar	109·1	80·9	95·0	28·3	42·5	+2·0	+1·0	+1·0
	Central Provinces (West)	108·6	82·6	95·6	26·1	37·3	+1·2	+2·2	−1·0
	Do. (Central)	106·3	80·5	93·4	25·9	37·4	+0·8	+1·9	−1·1
	Do. (East)	105·7	81·6	93·7	24·1	39·7	−0·8	+0·6	−1·4
Bombay (North)	Gujarat	103·4	78·9	91·2	24·5	37·7	+0·7	+0·4	+0·3
	Kathiawar and Cutch	98·8	76·3	87·6	22·4	35·5	−0·6	−0·5	−0·1
	Sind	104·0	79·5	91·8	24·5	40·8	+0·4	+1·5	−1·1
	Baluchistan Hills	87·4	54·7	71·1	32·7	52·0	−1·5	−0·6	−0·9
Rajputana and Central India.	Central India (East)	103·7	79·3	91·5	24·4	38·7	−0·9	+2·1	−3·0
	Rajputana (East), Central India (West)	103·5	80·5	92·0	23·1	38·3	−0·8	+2·4	−3·2
	Do. (West)	105·3	80·6	93·0	24·7	39·8	−1·2	+2·9	−4·1
Madras	East Coast (North)	93·6	80·5	87·1	13·1	26·1	−0·4	−1·0	+0·6
	Hyderabad (South)	106·0	81·1	93·6	25·0	35·1	+2·8	+2·6	+0·2
	Madras (Central)	106·4	82·0	94·2	24·3	39·0	+2·4	+1·7	+0·7
	East Coast (Central)	100·9	81·7	91·3	19·3	32·9	−1·8	0	−1·8
	Do. (South)	99·4	81·1	90·3	18·3	32·5	−0·8	+0·9	−1·7
	Madras (South)	97·5	78·2	87·9	19·3	28·2	−0·1	+0·6	−0·7

The principal features in the temperature conditions of the month were two cold waves which commenced in the north-west and thence extended eastward and southward over the whole of Northern and Central India. The first wave appeared on the 7th, the second on the 14th and the concluding portion of the month was marked by a brisk recovery of temperature from the depression produced by these two cold waves. The Peninsula was more or less outside the influence of these waves and the mean temperature was throughout the month fairly

steadily excessive over the Peninsular districts. The first six days of the month were likewise marked by more or less general excessive temperatures.

The following variations for the 24 hours preceding 8 A.M. on the 1st indicate the conditions prevailing at the commencement of the month :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st May.	Mean minimum temperature, 1st May.	Mean daily temperature, 1st May.
	°	°	°
Burma	−5·0	−0·5	−2·8
Assam	−2·0	−2·1	−2·1
Bengal	−0·2	0	−0·1
Orissa	−1·5	+0·1	−0·7
Bihar	+2·5	+1·5	+2·0
Chota Nagpur	−4·5	−1·6	−3·1
North-Western Provinces and Oudh	+1·8	−4·2	−1·2
Punjab	+4·7	+2·7	+3·7
Sind	+1·8	+1·6	+1·7
Rajputana	+3·8	+4·8	+4·3
Gujarat	+5·8	−0·8	+2·5
Central India	+0·9	−0·1	+0·4
Central Provinces	−2·1	−0·9	−1·5
Berar	−0·1	−6·7	−3·4
West Coast	+0·1	+2·0	+1·1
Bombay Deccan	+0·9	+0·3	+0·6
Mysore	+0·8	+3·0	+1·9
Madras Coast	−5·3	−1·1	−3·2
Madras Deccan	−4·0	−1·2	−2·6
South India	−4·4	+0·6	−1·9

In Burma during the next four days the temperature was unsteady, a good deal of rain occurring over that province during the period. The following gives the average daily variations of the mean temperature from the 2nd to the 5th over Burma :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	2nd May.	3rd May.	4th May.	5th May.
	°	°	°	°
Burma	−1·0	−2·8	−6·5	−5·2

In most parts of India this period was marked by a fairly steady increase of temperature and on the 6th the mean temperature was more or less excessive over nearly the whole country. The following gives the variations for the 24 hours preceding 8 A.M. on the 6th in illustration :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 6th May.	Mean minimum temperature, 6th May.	Mean daily temperature, 6th May.
	°	°	°
Assam	+2·4	+2·0	+2·2
Bengal	+1·8	+3·6	+2·7
Orissa	+0·6	+3·8	+2·2
Bihar	+2·8	+4·6	+3·7
Chota Nagpur	+1·8	+4·3	+3·1
North-Western Provinces and Oudh	+3·0	+5·8	+4·4
Punjab	+5·2	+4·1	+4·7
Sind	+3·6	+2·7	+3·2
Rajputana	+0·2	+8·3	+4·3
Gujarat	−0·2	+1·4	+0·6
Central India	−0·1	+4·9	+2·4
Central Provinces	+1·7	+3·5	+2·6
Berar	+1·1	+2·8	+2·0
West Coast	+0·2	+1·5	+0·9
Bombay Deccan	+0·6	−1·4	−0·4
Mysore	+3·5	+0·4	+2·0
Madras Coast	+3·5	+2·7	+3·1
Madras Deccan	+2·5	+2·1	+2·3
South India	−1·0	+1·0	0

On this day rain was reported over the North-West Himalayas and part of the plains of the Punjab and a brisk fall of temperature occurred at Chaman and Quetta between the 5th and 6th. This is shown below :—

Station.	Mean temperature.		
	Actual, 5th May.	Actual, 6th May.	Change in 24 hours 5th to 6th May.
	°	°	°
Chaman	77·7	70·0	−7·7
Quetta	70·3	64·6	−5·7

This fall of temperature extended quickly eastward and south-eastward and was felt more or less over the whole country except in the provinces of Burma and Assam and in the Peninsular divisions. This wave extended right across Northern India and was succeeded by a

brisk recovery in the north-west on the 11th and 12th. The following gives the daily variations of temperature from the normal for the different provinces of Northern India from the 6th to the 12th and shows the progress of the wave eastward :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	6th May.	7th May.	8th May.	9th May.	10th May.	11th May.	12th May.
	°	°	°	°	°	°	°
Sind	+3·2	−2·6	−2·0	−1·1	−0·8	+1·6	0
Punjab	+4·7	−8·7	−9·4	−7·1	−3·3	+0·9	+4·7
Rajputana	+0·6	−1·0	−2·9	−1·5	+0·4	−0·9	−2·7
Gujarat	+4·3	−0·4	−2·3	−3·0	−1·9	+1·6	+1·3
Central India	+2·4	+1·2	−0·4	+0·3	−2·0	−0·5	+0·4
North-Western Provinces and Oudh.	+4·4	+4·7	+2·2	−0·8	−3·1	−0·8	+1·4
Chota Nagpur	+3·1	+1·4	+0·3	−2·0	−5·5	−2·6	−4·8
Orissa	+2·2	+1·2	+1·7	−1·2	−4·6	+1·5	+1·0
Bihar	+3·7	+2·2	+3·9	+1·6	−3·8	−1·0	−0·9
Bengal	+2·7	+0·4	+1·7	+0·2	−1·3	+0·2	−1·8

The effect of the cold wave was most marked in the Punjab and more marked in the case of the day than in the case of the night temperatures. The following gives comparative data of the maximum temperature at those stations where the variation exceeded 15° during this period:—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual, of date.	Normal, of date.	Variation of actual from normal of date.
7th May	Khushab	74·2	104·2	−30·0
,,	Peshawar	68·2	96·1	−27·9
,,	Dera Ismail Khan.	76·3	101·0	−24·7
,,	Rawalpindi	76·0	96·4	−20·4
,,	Montgomery	93·0	109·0	−16·0
8th ,,	Khushab	77·2	103·7	−26·5
,,	Peshawar	72·2	96·0	−238
,,	Rawalpindi	73·0	96·1	−23·1
,,	Montgomery	87·0	109·2	−22·2
,,	Dera Ismail Khan.	80·3	101·2	−20·9
9th ,,	Montgomery	91·0	108·3	−17·3

Over the Peninsula at this time the mean temperature was steadily in excess, more particularly in the extreme south. This is shown below:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	6th May.	7th May.	8th May.	9th May.	10th May.	11th May.	12th May.
	°	°	°	°	°	°	°
Central Provinces	+2·6	+1·8	+0·8	+0·5	−0·1	0	+1·1
Berar	+2·0	+0·8	+0·3	−1·5	+2·2	+0·9	+0·7
West Coast	+0·9	+0·9	+0·7	+0·3	+0·8	+0·3	+0·3
Bombay Deccan	−0·4	+1·8	+0·5	0	+1·2	+0·9	−0·8
Mysore	+2·0	+3·8	+4·8	+6·2	+4·7	+3·3	+3·1
Madras Coast	+3·1	+3·3	+2·8	+2·1	0	−1·0	+1·0
,, Deccan	+2·3	+2·2	+4·5	+4·7	+4·2	+3·0	+2·4
South India	0	+2·2	+3·2	+4·0	+2·1	+1·7	+3·1

Thunderstorms occurred in Bengal and Orissa and in Gujarat and Rajputana on the 12th and 13th and these thunderstorms gradually extended until they spread all over Northern India and a considerable part of Central India and North Madras. They were accompanied with a very marked fall of temperature and the extension of this wave of cold was very remarkable. On the 11th relatively low temperatures appeared over Cutch, thence they spread by the 12th and 13th to all parts of Gujarat and the adjacent parts of Rajputana and Sind. On the 14th the greatest deficiency was shown at Deesa and Neemuch, on the 15th at Ajmer and Jaipur and on the 16th at Sirsa, Delhi, Neemuch and Sutna and thereafter the area of low temperature intensified and became general throughout nearly the whole of Northern India. The following gives the average variations of the mean daily temperature from the normal from the 11th to the 17th and illustrates the extension of these low temperatures over Northern India:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	11th May.	12th May.	13th May.	14th May.	15th May.	16th May.	17th May.
	°	°	°	°	°	°	°
Gujarat	−0·9	−2·7	−1·5	−2·0	−1·9	+0·1	+0·6
Sind	+0·8	0	−1·0	−0·4	+0·5	+1·2	+3·1
Punjab	+0·9	+4·7	+6·1	+2·8	+0·8	−1·0	−2·9
Rajputana	+1·6	+1·3	−1·4	−3·7	−5·7	−3·4	−2·7
Central India	−0·5	+0·4	+0·4	−2·2	−4·3	−5·8	−5·8
North-Western Provinces and Oudh.	−0·8	+1·4	+1·4	+0·2	−1·6	−3·6	−5·7
Chota Nagpur	−2·6	−4·8	−4·2	−3·6	−0·5	−1·8	−5·7
Orissa	+1·5	+1·0	−2·9	−3·5	−1·3	−0·4	−0·1
Bihar	−1·0	−0·9	−5·2	+1·1	+1·6	+1·1	−5·4
Bengal	+0·2	−1·8	−1·3	+1·6	+2·1	+2·5	−0·3

Over the Peninsula and Burma showers occurred at times during this period and the temperature was unsteady, though, as is shown below, there was generally some excess over both areas. The following gives comparative data for the Peninsula and Burma from the 11th to the 17th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	11th May.	12th May.	13th May.	14th May.	15th May.	16th May.	17th May.
	°	°	°	°	°	°	°
Central Provinces	0	+1·9	+1·1	—0·1	—0·7	—1·0	—3·3
Berar	+0·9	+0·7	—0·1	—0·1	—0·7	+0·7	—2·2
West Coast	+0·3	+0·3	—0·1	+0·6	+1·2	+1·0	+1·0
Bombay Deccan	+0·9	—0·8	—1·4	—1·4	+0·2	+1·2	+0·6
Mysore	+3·3	+3·1	+2·4	+2·9	+4·6	+4·3	+4·1
Madras Coast	—1·0	+1·0	—0·5	—0·9	—1·3	0	—0·4
" Deccan	+3·0	+2·4	+2·3	+1·8	+3·0	+3·7	+2·7
South India	+1·7	+3·1	+1·3	+1·8	+1·0	+2·4	+3·8
Burma	—0·6	+0·9	+1·9	+2·2	+1·9	—0·2	—0·1

The area of low temperature over Northern India noticed above intensified and reached its greatest extension on the 18th and 19th when the following were the variations from the normal in the different divisions of Northern India:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	18th May.	19th May.
	°	°
Bengal	— 2·9	—2·9
Orissa	— 3·6	—2·4
Bihar	— 5·7	—5·9
Chota Nagpur	—10·6	—7·1
North-Western Provinces and Oudh	— 9·8	—8·4
Punjab	— 5·2	—8·2
Sind	+ 3·6	+0·5
Rajputana	— 4·6	—5·2
Gujarat	+ 0·4	—0·1
Central India	— 5·4	—3·5

The deficiency was much more marked in the day than in the night temperatures, as is shown by the following table which gives the variations from the normal of the maximum and minimum temperatures on these two days for the stations at which the day temperature was more than 10° below the average:—

Date.	Station.	Variation from normal of	
		Maximum temperature of date.	Minimum temperature of date.
		°	°
18th May	Bareilly	—22·0	— 8·0
" "	Benares	—16·3	— 5·3
" "	Roorkee	—15·8	— 6·3
" "	Hazaribagh	—15·3	— 7·3
" "	Chaibassa	—14·8	— 8·6
" "	Dehra Dun	—14·8	— 5·8
" "	Sambalpur	—13·5	— 5·3
" "	Allahabad	—13·0	— 6·6
" "	Bahraich	—12·9	— 9·0
" "	Meerut	—12·1	— 5·0
" "	Rawalpindi	—12·1	— 3·5
" "	Mainpuri	—11·4	—12·8
" "	Delhi	—11·4	— 8·4
" "	Burdwan	—11·2	— 4·1
" "	Sutna	—11·2	— 9·0
" "	Peshawar	—11·0	— 0·4
" "	Patna	—10·7	— 4·5
" "	Gaya	—10·4	— 6·0
" "	Umballa	—10·2	...
19th "	Rawalpindi	—22·4	— 3·4
" "	Sialkot	—18·4	— 4·8
" "	Khushab	—18·3	— 9·5
" "	Gorakhpur	—18·1	— 7·0
" "	Bahraich	—16·3	— 7·5
" "	Chaibassa	—15·6	— 3·6
" "	Agra	—14·5	— 6·1
" "	Benares	—14·3	— 4·3
" "	Allahabad	—13·9	— 4·1
" "	Bareilly	—13·8	— 3·6
" "	Sutna	—13·6	— 3·1
" "	Lucknow	—13·4	— 2·4
" "	Patna	—13·3	— 4·1
" "	Lahore	—13·2	— 3·9
" "	Mainpuri	—13·1	— 6·6
" "	Hazaribagh	—12·0	— 3·7
" "	Montgomery	—12·0	— 2·0
" "	Jaipur	—12·0	— 9·8
" "	Sirsa	—11·7	— 0·5
" "	Dera Ismail Khan	—11·7	— 2·6
" "	Delhi	—11·5	— 5·6
" "	Ludhiana	—11·2	+ 0·9
" "	Nowgong	—11·1	— 1·4
" "	Gaya	—10·9	— 2·5
" "	Cawnpore	—10·6	— 5·4
" "	Ranchi	—10·1	— 2·3

It will be noticed that the depression of temperature at this time was less intense than during the previous cold wave between the 6th and the 11th.

On the 20th the areas of excessive temperature over the Peninsula and Lower Burma began to extend and the area of deficient temperatue in Northern India to contract, the rainfall having practically ceased over Northern India. This process continued during the next three days so that by the 23rd the mean temperature was in excess in all parts of the country except the Madras Coast, Assam and Gujarat. The following gives comparative data for the 24 hours preceding 8 A.M. of the 23rd in illustration :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 23rd May.	Mean minimum temperature, 23rd May.	Mean daily temperature, 23rd May.
	°	°	°
Burma	+5·3	+1·7	+3·5
Assam	—5·2	—2·7	—4·0
Bengal	+4·4	—0·1	+2·2
Orissa	+3·5	+0·6	+2·1
Bihar	+5·1	+5·2	+5·2
Chota Nagpur	+2·3	+2·4	+2·4
North-Western Provinces and Oudh	+1·2	+5·0	+3·1
Punjab	+0·7	+5·3	+3·0
Sind	+1·0	+4·7	+2·9
Rajputana	—0·6	+5·0	+2·2
Gujarat	—1·2	—0·8	—1·0
Central India	+0·5	+4·7	+2·6
Central Provinces	+0·8	+0·5	+0·7
Berar	+2·3	+2·1	+2·2
West Coast	+0·6	+1·0	+0·8
Bombay Deccan	+2·5	+1·2	+1·9
Mysore	+5·9	+2·3	+4·1
Madras Coast	—1·0	+0·5	—0·3
Madras Deccan	+2·8	+2·7	+2·8
South India	+1·8	+2·6	+2·2

In Assam thunderstorms occurred daily during this time and the mean temperature was continuously below the norma from the 19th until the end of the month. The following gives comparative data for this province for each alternate day from the 19th to the end of the month :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	19th May.	21st May.	23rd May.	25th May.	27th May.	29th May.	31st May.
	°	°	°	°	°	°	°
Assam	—1·6	—1·1	—4·0	—7·0	—2·1	—1·1	—4·3

In other parts of India, as mentioned above, the period from the 20th to the 25th was generally a period of increasing temperature. This was more particularly the case in Northern India and the recovery over the Punjab, Rajputana, the North-Western Provinces, Bihar and Chota Nagpur was very marked. The following gives comparative data in illustration :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	20th May.	21st May.	22nd May.	23rd May.	24th May.	25th May.
	°	°	°	°	°	°
Punjab	—8·2	—2·9	—0·2	+3·0	+5·2	+6·1
Rajputana	—5·5	—3·3	+0·2	+2·2	+2·9	+2·1
North-Western Provinces and Oudh.	—5·8	—2·6	+0·4	+3·1	+6·0	+4·9
Bihar	—2·5	—0·1	+3·1	+5·2	+5·1	+2·8
Chota Nagpur	—4·4	—1·0	+1·4	+2·4	+6·5	+8·1

Slight cloud and dust haze prevailed during this period with the result that the nights were particularly hot. This was particularly strongly marked at the close of the above period and on the 24th and 25th, the following excessively high night temperatures were recorded :—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
24th May	Bahraich	93·8	79·1	+14·7
	Ranchi	87·0	74·1	+12·9
	Bareilly	90·0	77·2	+12·8
	Meerut	88·4	76·3	+12·1
	Delhi	91·4	79·8	+11·6
	Gaya	90·8	79·9	+10·9
	Jacobabad	90·0	79·3	+10·7
	Bikaner	90·0	79·7	+10·3
	Jhansi	93·7	83·5	+10·2
	Lahore	83·4	73·4	+10·0
25th May	Sirsa	89·6	76·5	+13·1
	Lahore	84·9	73·0	+11·9
	Gaya	91·3	79·6	+11·7
	Bikaner	91·0	79·8	+11·2
	Ludhiana	85·2	74·2	+11·0
	Mooltan	88·6	77·7	+10·9
	Bareilly	88·0	77·4	+10·6
	Sutna	90·0	79·6	+10·4

Thunderstorms with rain occurred over Baluchistan, the North-West Himalayas and the West Punjab on the 24th. On the same day a very rapid fall of temperature occurred in Baluchistan. Showers continued on the 25th and the rapid fall of temperature extended rapidly eastward over Northern India on the 26th, but the wave never assumed the proportions of the two preceding cold waves. The following gives comparative data for Baluchistan and North-West India from the 24th to the 27th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	24th May.	25th May.	26th May.	27th May.
	°	°	°	°
Baluchistan	+2·8	−4·7	−8·1	−5·6
Sind	+2.8	+2·0	−0·5	−1·0
Gujarat	−0·1	−1·0	+0·7	+0·4
Rajputana	+2·9	+2·1	+2·8	+2·0
Punjab	+5·2	+6·1	−0·4	−0·4

On the 28th and 29th temperature was unsteady over Northern India, but on the 30th a marked recovery set in and on the 31st temperature was very high over the central and north-western divisions. The following gives comparative data for this day :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 31st May.	Mean minimum temperature, 31st May.	Mean daily temperature, 31st May.
	°	°	°
North-Western Provinces and Oudh	+4·7	+4·6	+4·7
Punjab	+4·1	+6·7	+5·4
Sind	+2·2	+2·5	+2·4
Rajputana	+2·9	+5·2	+4·1
Central India	+4·2	+3·4	+3·8
Central Provinces	+5·1	+3·8	+4·5
Berar	+5·5	+0·4	+3·0

The maximum temperature of the month was recorded on this day in the north-west and the day temperature exceeded 100° practically everywhere over Central and North-West India and was over 110° at the majority of the stations. Relatively to the normal, however, the heat as greater by night than by day and at the following stations the minimum temperature was more than 8° above the normal :—

STATION.	MINIMUM TEMPERATURE.		
	Actual, 31st May.	Normal, 31st May.	Variation of actual from normal, 31st May.
	°	°	°
Sirsa	94·1	80·8	+13·3
Meerut	89·4	78·3	+11·1
Bikaner	93·0	82·5	+10·5
Delhi	91·9	82·2	+ 9·7
Montgomery	91·5	81·8	+ 9·7
Rawalpindi	80·1	70·7	+ 9·4
Lahore	84·9	76·4	+ 8·5
Sambhar	90·3	81·9	+ 8·4

Thunderstorms accompanied with showers rendered temperature very unsteady over the east of the Peninsula, but in the centre and west, where the weather was uninterruptedly fine, the heat was steadily excessive. The following gives comparative data for the Peninsular divisions for the seven days, May 25th to 31st :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	25th May.	26th May.	27th May.	28th May.	29th May.	30th May.	31st May.
	°	°	°	°	°	°	°
Central Provinces	+3·8	+4·0	+3·1	+2·6	+3·6	+3·6	+4·5
Berar	+2·0	+2·2	+3·1	+2·5	+3·4	+4·3	+3·0
West Coast	+1·1	+2·2	+2·8	+2·1	+1·5	+1·4	+2·3
Bombay Deccan	−0·4	+3·2	+4·1	+3·9	+4·3	+4·8	+3·8
Mysore	−2·9	+1·8	+4·6	+2·3	+3·4	+2·7	+2·6
Madras Coast	+2·1	+0·8	−1·2	−3·1	−1·8	−1·8	+0·9
Madras Deccan	−3·6	+3·2	+3·5	+2·4	+1·9	+2·9	+4·7
South India	+3·7	+4·9	+4·2	+2·3	+0·6	−1·9	+1·1

Showers ceased over the east of the Peninsula on the 29th and a rise of temperature set in on the two last days. The result was that except in Bengal and Assam, where as stated above, the weather remained showery the heat was excessive almost everywhere. This is shown by the following table which gives the temperature variations for the 24 hours preceding 8 A.M. of the 31st and

shows the conditions obtaining at the close of the month :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 31st May.	Mean minimum temperature, 31st May.	Mean daily temperature, 31st May.
	°	°	°
Burma	+2·4	+1·2	+1·8
Assam	—4·4	—4·1	—4·3
Bengal	+0·5	—4·1	—1·8
Orissa	+3·5	—6·0	—1·3
Bihar	+1·5	—0·3	+0·6
Chota Nagpur	+5·5	+1·9	+3·7
North-Western Provinces and Oudh	+4·7	+4·6	+4·7
Punjab	+4·1	+6·7	+5·4
Sind	+2·2	+2·5	+2·4
Rajputana	+2·9	+5·2	+4·1
Gujarat	+0·3	—1·5	—0·6
Central India	+4·2	+3·4	+3·8
Central Provinces	+5·1	+3·8	+4·5
Berar	+5·5	+0·4	+3·0
West Coast	+1·5	+3·0	+2·3
Bombay Deccan	+7·8	—0·2	+3·8
Mysore	+5·2	—0·1	+2·6
Madras Coast	+1·0	+0·8	+0·9
Madras Deccan	+4·9	+4·4	+4·7
South India	+0·5	+1·6	+1·1

The following table gives the variations of the mean temperature, week by week, during the month and also for the whole month :—

Province or Division.	Variation from normal of mean temperature for week ending					
	5th May.	12th May.	19th May.	26th May.	2nd June.	For whole month, May 1900.
	°	°	°	°	°	°
Burma	—2·3	—0·3	+1·2	+2·6	+1·9	+0·1
Assam	+0·4	+2·6	+2·3	—3·1	—3·3	—0·2
Bengal	+0·3	+0·3	—0·2	+0·5	—0·6	+0·2
Orissa	—2·0	+0·3	—2·0	+1·4	—0·1	—0·5
Bihar	+1·2	+0·8	—2·6	+1·9	—0·4	—0·2
Chota Nagpur	—4·2	—1·4	—4·9	+2·1	+2·9	—0·4
North-Western Provinces and Oudh.	—0·4	+1·1	—3·9	+1·1	+2·6	—0·2
Punjab	+4·3	—2·6	—1·1	+0·4	+1·6	+0·6
Sind	+2·1	—0·4	+1·1	+1·0	+0·9	+1·0
Rajputana	+3·7	—0·1	—3·8	+0·2	+2·9	+0·8
Gujarat	+1·4	—1·1	—0·7	—0·3	—0·1	—0·1
Central India	+0·4	+0·2	—3·8	+1·9	+3·2	+0·6
Central Provinces	—0·9	+1·0	—1·0	+2·2	+3·8	+1·2
Berar	0	+0·8	—0·2	+2·5	+3·1	+1·5
West Coast	+0·5	+0·6	+0·7	+1·1	+2·3	+0·8
Bombay Deccan	+1·5	+0·5	+0·5	+2·1	+3·9	+1·7
Mysore	+1·1	+4·0	+3·8	+2·0	+3·2	+3·0
Madras Coast	—2·0	+1·6	—1·2	—0·6	—0·4	—0·8
Madras Deccan	—0·9	+3·3	+2·5	+1·1	+4·0	+2·4
South India	—2·2	+2·3	+1·7	+2·3	+1·6	+1·4

Winds.

At Port Blair the wind was more westerly and stronger than usual. During the first half of the month the wind was strong, more particularly on the 5th and 8th, when the velocity in 24 hours equalled 325 miles and a feeble depression existed over the Andaman Sea. After the 12th, however, the wind fell lighter and apparently there was no advance of monsoon winds over the east of the Bay at this time. The steadiness of the wind was about the normal. At the Burma stations the variations of the wind from the normal were irregular. At Diamond Island the direction was more, and at Akyab less, westerly than usual and at the latter station the mean direction was slightly to the east of south. The wind was also lighter and less steady than the normal at this station. At Rangoon the wind's direction was normal, but the force was low. The following table gives comparative data of direction, velocity and steadiness for the stations in this area :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Westerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°				
Port Blair	42	41	+ 1	S 68 W	S 38 W	+30	190	171	+19
Cocos Island	52	58	—6	S 89 W	S 51 W	+38	96	?	?
Rangoon	47	58	—11	S 17 W	S 21 W	— 4	93	113	—20
Diamond Island.	40	47	— 7	S 84 W	S 72 W	+12	214	177	+37
Akyab	23	30	— 7	S 1 E	S 24 W	—25	57	89	—32

In Bengal the wind was more and in Orissa less westerly than usual, but the variations were not very important. The following gives data :—

STATION.	MEAN WIND DIRECTION.		
	Actual, May 1900.	Normal, May.	Westerly deflection.
	°	°	°
Chittagong	S 17 W	S 1 E	+18
Calcutta	S 18 W	S 7 E	+25
Saugor Island	S 6 W	S 8 W	— 2
False Point	S 5 W	S 23 W	—18

Almost everywhere in this division the wind was steadier than usual, but the velocity was low except at Saugor Island. This is shown below:—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Chittagong . . .	37	42	— 5	141	150	— 9
Calcutta . . .	72	65	+ 7	142	172	—30
Saugor Island . .	79	73	+ 6	424	394	+30
False Point . . .	89	73	+16	314	338	—24

In the Gangetic Plain, Chota Nagpur and Upper India the winds also varied irregularly from the normal and in many instances the wind was even less steady than usual. In Upper India the direction was generally more southerly than usual, but the principal characteristic of the wind was irregularity of direction and unsteadiness. The following gives comparative data for the Gangetic Plain and Chota Nagpur :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.	
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.
				°	°
Hazaribagh . .	13	15	—2	S 27 W	S 83 W
Darbhanga . .	68	60	+8	S 70 E	S 82 E
Allahabad. . .	22	24	—2	N 8 E	N 3 W

This unsteadiness was very marked in the Upper-Sub-Himalayas group where, though the wind was so unsteady the force was generally greater than usual. The following gives comparative data of steadiness and velocity :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Dehra Dun . . .	26	25	+ 1	59	54	+ 5
Roorkee . . .	13	11	+ 2	99	90	+ 9
Meerut . . .	10	22	—12	50	64	—14
Lahore . . .	8	17	— 9	64	79	—15
Ludhiana . . .	11	11	0	77	58	+19

In the Indus Valley and North-West Rajputana the wind's direction was more westerly than the normal and the steadiness was greater than usual while the velocity except in the case of Peshawar was also about the average. At Peshawar the mean diurnal velocity was only 44 against the normal 116 miles. The following gives comparative data for this region :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual, from normal, May 1900.	Actual, May 1900.	Normal, May.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°			
Peshawar . .	27	29	— 2	N 12 W	N 17 E	44	116	—72
Jacobabad . .	37	10	+27	S 11 E	S 40 E	137	112	+25
Kurrachee . .	93	86	+ 7	S 72 W	S 66 W	394	407	—13

In East Rajputana, as in the Upper Sub-Himalayas, the wind direction was more southerly than usual, but in South Rajputana the direction was more westerly than the average. This is shown below :—

STATION.	MEAN WIND DIRECTION.	
	Actual, May 1900.	Normal, May.
	°	°
Jaipur	S 82 W	N 66 W
Udaipur	S 73 W	...
Deesa	S 83 W	S 60 W

In Rajputana the wind was very steady, but was lighter than usual. The following gives comparative wind data for Burma and the different divisions of Northern India :—

Province or division.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Westerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Bay Islands	42	41	+ 1	S 68 W	S 38 W	+30	190	171	+19
Burma .	37	45	— 8	S 32 W	S 39 W	— 7	121	126	— 5
Bengal .	63	60	+ 3	S 14 W	S	+14	236	239	— 3
Orissa .	89	73	+16	S 5 W	S 23 W	—18	314	338	—24
Chota Nagpur.	13	15	— 2	S 27 W	S 83 W	—56	198	222	—24
Bihar .	68	60	+ 8	S 70 E	S 82 E	+12	138	152	—14
North-Western Provinces.	18	21	— 3	S 69 W	N 73 W	— 4	95	89	+ 6
Punjab .	15	19	— 4	N 30 W	N 9 W	+21	62	84	—22
Sind .	65	48	+17	S 34 W	S 15 W	+19	266	260	+ 6
Rajputana.	71	59	+12	S 83 W	S 86 W	— 3	213	241	—28

In the Deccan the wind was very nearly normal. North-westerly to west-north-westerly winds prevailed throughout the division, while the steadiness and velocity were generally greater than usual. The following gives comparative data for this division :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Westerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Belgaum .	59	60	— 1	N 82 W	S 88 W	— 8	?	424	?
Sholapur .	58	55	+ 3	N 41 W	N 49 W	— 8	217	255	—38
Poona .	92	78	+14	N 85 W	N 74 W	+11	432	342	+90
Akola .	83	75	+ 8	N 43 W	N 50 W	— 7	266	224	+42
Buldana .	83	69	+14	N 58 W	N 49 W	+ 9	331	286	+45
Khandwa .	77	72	+ 5	N 58 W	N 62 W	— 4	266	241	+25
Nagpur .	58	41	+17	N 42 W	N 46 W	— 4	229	228	— 1
Hyderabad, Deccan.	29	50	—21	N 25 W	N 57 W	—32	139	173	—34

Along the West Coast the wind's direction was about normal and the steadiness was greater than usual, but the velocity varied irregularly having been less than usual at Bombay and greater than usual at Karwar.

At Madras the wind was more southerly than the average and was slightly steadier and stronger than the normal.

The following gives comparative data for this station:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Southerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Madras .	76	65	+11	S 3 E	S 13 E	+10	221	219	+2

At Salem the wind blew from the normal south-westerly direction. In other parts of Southern India the general direction, as in the case of the Deccan, was between north-west and west-north-west and on the whole the direction was more northerly than usual. This is shown below :—

Station.	Mean wind direction.	
	Actual, May 1900.	Normal, May.
	°	°
Salem	S 47 W	S 47 W
Chitaldroog	N 62 W	N 80 W
Bangalore	N 44 W	S 78 W
Hassan	N 44 W	N 85 W
Mysore	N 62 W	S 83 W
Bellary	N 47 W	N 73 W

The following gives comparative data of direction, steadiness and velocity for the different Peninsular divisions :—

Province or Division.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Westerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Bombay Deccan.	70	64	+ 6	N 69 W	N 70 W	— 1	325	299	+26
Berar .	83	72	+11	N 51 W	N 50 W	+ 1	299	255	+44
Central Provinces.	68	57	+11	N 50 W	N 54 W	— 4	248	235	+13
Madras Deccan.	50	53	— 3	N 36 W	N 65 W	—29	173	187	—14
West Coast	83	76	+ 7	N 72 W	N 75 W	— 3	195	188	+ 7
Mysore .	52	70	—18	N 53 W	W	—37	174	189	—15
Madras Coast.	76	65	+11	S 3 E	S 13 E	...	221	219	+ 2
South India	37	55	—18	S 47 W	S 47 W	0	110	98	+12

At Quetta, as in Upper India, the wind direction was more southerly than usual. The following gives data for the station and shows also that the steadiness was low and the velocity less than the average :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Southerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Quetta .	24	47	−23	S 72 W	N 68 W	+40	33	91	−58

Winds varied irregularly from the normal at the Himalayan hill stations. The steadiness was generally in excess at the more western and in defect at the more eastern stations, as is shown below :—

Station.	Mean steadiness.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.
Leh	19	31	−12
Srinagar	18	11	+ 7
Kailang	64	69	− 5
Simla	47	33	+14
Chakrata	64	33	+31
Ranikhet	40	46	− 6
Katmandu	27	49	−22
Darjeeling	21	38	−17

The only important variation in the velocity was shown at Chakrata where the wind was much stronger than usual. The following gives data :—

Station.	Mean wind velocity in miles per diem.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Chakrata	260	164	−96

At Mount Abu the wind, as on the plains of Rajputana, was more southerly than the average, while both the steadiness and velocity exceeded the normal. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Southerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Mount Abu	77	71	+6	S 56 W	S 67 W	+11	284	247	+37

At the Central Provinces' hill stations the wind was north-north-westerly and north-westerly and was stronger and steadier than the average; while at Wellington in South India the wind direction was north-easterly.

At the entrance to the Red Sea the wind was strong and steady from south-east. The following gives comparative data for Aden and Perim :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Easterly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Aden .	47	40	+ 7	S 76 E	S 60 E	+16	310	266	+44
Perim .	79	32	+47	S 56 E	S 82 E	−26	377	337	+40

In the South-East Trades region the wind blew from about the normal direction, but the steadiness and velocity were both lower than usual. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, May 1900.	Normal percentage, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Southerly deflection.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
				°	°	°			
Zanzibar .	80	85	− 5	S 3 E	S 5 E	+ 2	174	194	−20
Seychelles.	40	58	−18	S 44 E	S 44 E	0	128	173	−46

The following gives comparative data of the mean air movement for the various provinces based on Table I:—

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Burma	108	110	— 2
Assam	101	106	— 5
Bengal	108	175	— 67
Orissa	295	214	+ 81
Bihar	144	108	+ 36
Chota Nagpur	122	211	— 89
North-Western Provinces and Oudh	89	106	— 17
Punjab	101	79	+ 22
Sind	276	278	— 2
Rajputana	226	211	+ 15
Gujarat	240	341	—101
Central India	166	180	— 14
Central Provinces	139	137	+ 2
Berar	247	175	+ 72
West Coast	182	206	— 24
Bombay Deccan	302	317	— 15
Mysore	170	132	+ 38
Madras Coast	194	204	— 10
„ Deccan	211	190	+ 21
South India	110	118	— 8

Humidity and Cloud.

The air was damper than usual over the West and South Punjab and Upper Sind, over the east of Rajputana, the Gangetic Plain and South-West Bengal, over Lower Burma and over the South Coromandel Coast. Elsewhere the air was drier than usual, the deficiency in the relative humidity having been most marked over the Deccan and Mysore. It will be remembered that the weather was cooler and more disturbed than usual during May over Northern India and finer and hotter than usual over Southern India, and the general conditions of humidity agreed with this state of the weather. Two periods of great dryness occurred during the month, one at the beginning, the other at the end of the month. The following are the lowest humidities recorded at these times:—

Station.	Date.	Hour.	Lowest humidity recorded during May, 1900.
			%
Deesa	1st May	4 P.M.	2
Akola	„ „	4 „	3
Jhansi	„ „	8 A.M.	3
Buldana	„ „	10 „	3
Montgomery	„ „	8 „	4
Jamnagar	„ „	From minimum.	6
Akola	„ „	10 A.M.	6
Buldana	„ „	4 P.M.	6
Roorkee	„ „	4 „	7
Nagpur	1st May	4 P.M.	7
Buldana	2nd „	4 „	3
Akola	„ „	8 A.M.	4
	„ „	4 P.M.	4
Buldana	„ „	10 A.M.	4
Akola	„ „	10 „	5
Deesa	„ „	4 P.M.	6
Nagpur	„ „	4 „	6
Poona	„ „	4 „	7
Seoni	3rd „	8 A.M.	4
Akola	„ „	10 „	4
Buldana	„ „	4 P.M.	4
	„ „	10 A.M.	5
Akola	„ „	4 P.M.	6
Nagpur	„ „	4 „	7
Jamnagar	7th „	From minimum.	7
Leh	9th „	8 A.M.	5
Buldana	„ „	4 P.M.	7
Deesa	10th „	4 „	5
Jamnagar	31st „	From minimum.	3

At Port Blair, though the absolute humidity was in excess of the normal, the mean temperature of the month was excessive and the relative humidity was slightly below the normal. In Burma the relative humidity was above the normal. In Bengal the absolute humidity was less than usual, while in Orissa it was about the normal. The relative humidity was in defect both in Bengal and Orissa. The following gives data for these areas :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Burma — Rangoon	·902	·870	+·032	81	78	+3
Burma — Diamond Island.	·889	·891	—·002	76	74	+2
Bengal — Chittagong	·825	·871	—·046	75	80	—5
Bengal — Calcutta	·868	·883	—·015	71	74	—3
Bengal — Saugor Island	·943	·987	—·044	77	80	—3
Orissa. False Point	·973	·970	+·003	80	82	—2

At Hazaribagh and Allahabad both the absolute and relative humidities were above the normal, while at Darbhanga both were below. The following gives comparative data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal. May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Hazaribagh	·518	·467	+·051	45	40	+5
Allahabad	·551	·526	+·025	39	37	+2
Darbhanga	·730	·765	—·035	61	62	—1

In the Upper Sub-Himalayas, with the exception of Lahore, the absolute and relative humidities were in defect of the normal, but by small amounts, as is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, May 1900.	Normal, May.	Variation of actual, from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Lahore	·472	·441	+·031	37	33	+4
Dehra Dun	·378	·407	—·029	37	39	—2
Roorkee	·381	·428	—·047	31	35	—4
Meerut	·483	·494	—·011	36	40	—4
Ludhiana	·422	·495	—·073	33	41	—8

In the Indus Valley the two stations of Peshawar and Jacobabad exhibited an excess of humidity and Kurrachee a deficiency, and the same distribution obtained in Rajputana, as Jaipur showed a slight excess and Deesa a slight deficiency. The following gives comparative data for aqueous vapour and humidity for the Bay Islands, Burma, and the different divisions of Northern India :—

Division.	Mean absolute humidity.			Mean relative humidity.		
	Actual, May 1900.	Normal. May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Bay Islands	·955	·937	+·018	82	83	—1
Burma	·896	·881	+·015	79	76	+3
Bengal	·879	·914	—·035	74	78	—4
Orissa	·973	·970	+·003	80	82	—2
Chota Nagpur	·518	·467	+·051	45	40	+5
Bihar	·730	·765	—·035	61	62	—1
North-Western Provinces.	·448	·464	—·016	36	38	—2
Punjab	·464	·447	+·017	39	38	+1
Sind	·711	·669	+·042	52	52	0
Rajputana	·469	·502	—·033	36	36	0

At Akola there was a local excess in the absolute humidity and the relative humidity was normal, but at all the remaining stations in the Deccan both the absolute and relative humidities were in defect. The relative humidity was most largely in defect at Nagpur and

Sholapur, the absolute humidity at Nagpur. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Nagpur . .	·328	·448	—·120	20	29	—9
Sholapur . .	·384	·471	—·087	28	37	—9

On the West Coast also the air was drier than usual. Comparative data for the two stations on the West Coast are given below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Bombay . .	·841	·877	—·036	70	74	—4
Karwar . .	·833	·853	—·020	70	73	—3

In South India the variations from the average were irregular. At Salem and Madras the absolute humidity was in excess, and the relative humidity normal or in excess, as is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Salem . . .	·812	·762	+·050	63	63	0
Madras . .	·920	·877	+·043	72	68	+4

At the remaining stations in South India both the absolute and relative humidities were below the normal. The deficiency was most marked in Mysore, and the largest negative variations throughout India were recorded at Bangalore and Hassan. Comparative data for these two stations are given below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Bangalore . .	·530	·594	—·064	50	62	—12
Hassan . .	·523	·610	—·087	56	70	—14

The following gives mean comparative data for vapour tension and for relative humidity for the different divisions of the Peninsula.

DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Bombay Deccan .	·483	·558	—·075	41	48	— 7
Berar . . .	·385	·417	—·032	27	31	— 4
Central Provinces .	·355	·458	—·103	23	32	— 9
West Coast . .	·837	·865	—·028	70	73	— 4
Madras Deccan .	·487	·570	—·083	35	43	— 8
Mysore . .	·546	·594	—·048	53	63	—10
Madras Coast .	·920	·877	+·043	72	68	+ 4
South India . .	·812	·762	+·050	63	63	0

At Quetta and at the hill stations in Kashmir and the Western Himalayas the air was damper than usual and the mean temperature in trifling defect. Hence the relative humidity was almost everywhere in excess, as is shown in the following table :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Vatiation of actual from normal, May 1900.
	"	"	"	%	%	
Quetta . . .	·306	·276	+·030	47	41	+ 6
Srinagar . .	·512	·431	+·081	88	71	+17
Simla . . .	·274	·279	—·005	50	46	+ 4
Chakrata . .	·278	·276	+·002	51	48	+ 3
Leh . . .	·142	·128	+·014	41	39	+ 2
Kailang . .	·189	·184	+·005	58	56	+ 2
Ranikhet . .	·312	·334	—·022	48	50	— 2

On the other hand, at the Eastern Himalayan hill stations, both the absolute and relative humidities were below the normal. The following gives comparative data :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Katmandu . .	·469	·496	—·027	66	68	—2
Darjeeling . . .	·397	·408	—·011	85	87	—2

At Mount Abu as at Deesa, the air was drier than the average, but at Pachmarhi and Chikalda the absolute humidity was in excess, though at the latter station, owing to the excessive temperature, the relative humidity was normal. At Wellington both the absolute and relative humidities were lower than usual. The following gives comparative data for this station :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Wellington . . .	·414	·439	—·025	62	69	—7

At Aden the air was drier and at Perim damper than the normal. In the South-East Trades region the absolute humidity was in excess, but owing to the excessive temperature prevailing, the relative humidity at Zanzibar was less than usual. The following gives comparative data for Zanzibar and the Seychelles :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
	"	"	"	%	%	
Zanzibar . . .	·817	·795	+·022	81	82	—1
Seychelles . . .	·859	·812	+·047	80	76	+4

The chief features of the mean humidity conditions of the month were :—

(1) The air was drier than usual over nearly the whole of the Peninsula, but particularly so over Mysore.

(2) The air was damper than usual over the extreme north-west of India.

(3) It was slightly damper than usual over the Gangetic Plain and in Lower Burma.

The cloud distribution, relatively to the normal, agreed to a certain extent with the variation in the distribution of humidity. Thus there was an excess of cloud over the extreme north-west of India, over the Gangetic Plain and over Lower Burma ; but on the other hand, there was also an excess over part of the Deccan, where the humidity was in defect and a marked excess over part of Mysore, where the largest deficiency of humidity was reported.

The cloud amount was in excess at Port Blair and Rangoon, and in defect at Diamond Island and Akyab; but the variations from the normal were generally small. In Bengal, Orissa and Bihar the sky was clearer than usual, more particularly at the coast stations of Chittagong and Saugor Island. The following gives comparative data for these areas :—

Area.	Station.	Mean cloud amount.		
		Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Bengal . .	Saugor Island .	4·4	5·8	—1·4
	Chittagong . .	4·4	5·4	—1·0
	Calcutta . .	4·0	4·3	—0·3
Orissa . . .	False Point . .	4·5	4·8	—0·3
Bihar . . .	Darbhanga . .	1·8	2·0	—0·2

On the other hand, over Chota Nagpur, the Gangetic Plain, the Upper Sub-Himalayas and westward to the Indus, the sky was more clouded than usual. This was particularly the case in the west of the North-Western Provinces, where Meerut reported an excess of 2·9. The following gives comparative data for this large area :—

Area.	Station.	Mean cloud amount.		
		Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Chota Nagpur .	Hazaribagh . .	4·5	3·6	+0·9
Gangetic Plain	Allahabad . .	2·1	1·6	+0·5
Upper Sub-Himalayas.	Meerut . . .	4·6	1·7	+2·9
	Ludhiana . .	3·1	2·1	+1·0
	Dehra Dun . .	3·3	2·7	+0·6
	Roorkee . .	1·8	1·6	+0·2
	Lahore . .	2·1	2·2	—0·1
West of Indus .	Peshawar . .	4·8	2·9	+1·9
	Jacobabad . .	1·2	1·1	+0·1

In Eastern Rajputana the cloud amount was normal, but in Southern Rajputana and in Lower Sind the sky was clearer than usual. The following gives comparative data for Kurrachee and Deesa :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Kurrachee	1·1	2·1	—1·0
Deesa	0·7	1·5	—0·8

At Nagpur and Hyderabad the cloud amount exceeded the normal. This is shown below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Nagpur	4·4	3·8	+0·6
Hyderabad (Deccan)	3·9	2·9	+1·0

In other parts of the Deccan, however, the sky was unusually clear, the deficiency exceeding 1 at Belgaum, Poona, Akola and Buldana. The following gives data for this area of diminished cloudiness :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900
Poona	1·2	3·0	—1·8
Akola	1·1	2·4	—1·3
Buldana	1·2	2·5	—1·3
Belgaum	2·4	3·6	—1·2
Khandwa	1·3	2·1	—0·8
Sholapur	3·4	4·1	—0·7

Along the West Coast also the sky was clearer than usual, the maximum deficiency throughout India having been reported from Bombay. The following gives data for that station :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Bombay	1·7	3·8	—2·1

In South India the variations of the cloud amount from the normal were irregular. In part of Mysore and at Bellary the sky was cloudier than usual; at Salem the cloud amount was exactly normal, and at the remaining stations it was less than usual. The following gives data for this division :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal May 1900.
Mysore	6·6	5·4	+1·2
Bellary	5·3	4·9	+0·4
Hassan	5·6	5·4	+0·2
Salem	4·6	4·6	0
Bangalore	3·7	4·4	—0·7
Madras	3·7	3·8	—0·7
Chitaldroog	3·2	4·2	—1·0

At Leh the sky was a trifle clearer than usual, but with this exception all the hill stations in Baluchistan and the Western Himalayas had more cloud than usual. The excess was greatest at Quetta, but was considerable at Srinagar and Simla. The following gives comparative data for these three stations :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Quetta	3·8	1·2	+2·6
Srinagar	5·1	3·5	+1·6
Simla	4·9	3·8	+1·1

At the Eastern Himalayan hill stations, as well as at the central and southern hill stations, the cloud amount was normal or in slight defect. This is shown below :—

AREA.	STATION.	MEAN CLOUD AMOUNT.		
		Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
EASTERN HIMALAYAS.	Darjeeling	6·6	7·4	—0·8
	Katmandu	5·0	5·4	—0·4
CENTRAL INDIA HILL STATIONS.	Chikalda	2·2	2·9	—0·7
	Mount Abu	1·2	1·4	—0·2
	Pachmarhi	2·8	2·8	0
SOUTH INDIA HILL STATION.	Wellington	5·2	5·8	—0·6

The sky was clear of cloud or the cloud amount was less than, on the mean of the month only at the few stations, comparative data for which are given below:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.
Udaipur	0·9	...	...
Deesa	0·7	1·5	−0·8
Jamnagar	0·4	...	...

At Aden the sky was more and at Perim less cloudy than usual, while in the South-East Trades region the cloud amount was nearly normal.

The principal features of the cloud distribution were—

(1) An excess over the Punjab, the North-Western Provinces, the west of Bengal, the east of the Central Provinces, the Madras Deccan and part of Mysore.

(2) An excess in Lower Burma and the Bay Islands.

(3) The excess was large over the west of the North-Western Provinces and in Baluchistan, and considerable in the North-West Punjab and part of Mysore.

(4) A deficiency of cloud over the remainder of India. This deficiency was most marked over the West Coast and the Bombay Deccan, but was considerable at the head of the Bay.

Rainfall.

As a general rule the rainfall of the month of May over a large part of India is small and occurs as scattered showers during thunder and dust-storms. This area of light, irregular rainfall includes the Punjab, Rajputana, the North-Western-Provinces., Central India, Berar, the Central Provinces, North Bombay and the North Deccan. On the other hand, in Bengal and Assam, in Lower Burma and Tenasserim and in Southern India, more especially Malabar, the rainfall, though also falling mainly during thunder-storms, is usually moderate to heavy in amount and is of considerable economic importance. The rainfall of Bengal and Assam, in the month of May, is due wholly to thunder-showers, which are heaviest and most frequent in East and North Bengal and Assam. The average rainfall of the month in Bengal Proper ranges from 4 inches in the western districts to 11 inches at Mymensingh and 15 inches at Cooch Behar. In Assam the rainfall ranges from 9 inches in the Central Assam Valley districts to 52 inches at Cherrapoonjee. In Burma and Southern India, though most of the rainfall is ordinarily due to thunder-showers, there frequently occur in the latter part of the month advances of south-west monsoon winds which occasion more or less heavy rain. During May 1900 the rainfall was almost everywhere lighter than usual, and nearly the whole of the Bombay Presidency was practically rainless throughout the month. The weather was more disturbed than usual over Northern India, and certain parts of Northern India had more rain than the small normal fall; but in North-East India, where, as mentioned above, moderate to heavy rain is anticipated, the deficiency in the month's rainfall was considerable. The chief periods of disturbed weather and of rainfall during the month were as follows:—

1st.—From the 1st to the 5th, when Burma and North-East India received rain in part from the small depression over the Andaman Sea.

2nd.—From the 6th to the 9th, when the Punjab and the North-West Himalayas received rain from a depression over North-West India.

3rd.—The 9th and 10th, when North-East India and Burma received rain from thunder-showers.

4th.—From the 13th to the 20th, when practically the whole of Northern India received showers from scattered dust and thunder storms.

5th.—From the 21st to the end of the month, when North-East India and Burma received daily thunder-showers.

6th.—The 24th, when the Peninsula received showers.

7th.—The 25th and 26th, when the Punjab and the North-West Himalayas received showers from thunder-storms.

8th.—The 29th, when the Peninsula again received showers.

It will be noticed from the above that the weather was feebly disturbed throughout the greater part of the month, but in most places the rainfall amounts were not large. In Malabar there was a complete absence of those advances of the monsoon current which ordinarily give fairly heavy rain to this region, while in Burma, if the depression of the 5th and 6th be omitted, there was also a complete absence of rain from this source.

The following table gives comparative rainfall data for 56 meteorological or rainfall divisions of India.—

Province.	Division.	Number of rainy days. Average actual, May 1900.	Number of rainy days. Average normal, May.	Rainfall. Average actual, May 1900.	Rainfall. Average normal, May.	Rainfall. Variation of actual from normal, May 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim *	...	...	15·05	20·83	—5·78
	Lower Burma (Deltaic) *	...	...	6·82	11·80	—4·98
	Central ditto*	...	...	3·12	6·89	—3·77
	Upper ditto*	...	...	3·82	6·01	—2·19
	Arakan *	...	...	2·70	21·70	—19·00
Bengal and Assam	Eastern Bengal	9·8	10·8	6·56	10·30	—3·74
	Assam (Surma)	13·4	16·3	10·96	18·80	—7·84
	Do. (Hills)	13·2	15·3	9·14	15·15	—6·01
	Do. (Brahmaputra)	11·7	14·8	9·46	12·20	—2·74
	Deltaic Bengal	9·4	7·9	6·01	6·14	—0·13
	Central do.	6·3	6·7	3·82	5·21	—1·39
	North do.	10·6	11·0	8·83	10·56	—1·73
	Bengal Hills	12·6	13·4	6·96	11·38	—4·42
	Orissa	6·6	5·2	4·00	4·46	—0·46
	Chota Nagpur	5·0	4·0	2·30	2·73	—0·43
	Bihar (South)	2·0	2·2	1·10	1·70	—0·60
	Do. (North)	4·2	4·2	2·74	3·15	—0·41
North-Western Provinces and Oudh.	North-Western Provinces (East)	1·3	1·0	0·57	0·51	+0·06
	Oudh (South)	1·3	1·2	0·58	0·57	+0·01
	Do. (North)	1·8	1·8	0·78	0·95	—0·17
	North-Western Provinces (Central)	1·2	0·9	0·43	0·36	+0·07
	Do. do. (West)	1·1	1·2	0·34	0·48	—0·14
	Do. do. (East Submontane)	2·3	1·9	1·07	1·19	—0·12
	Do. do. (West do.)	1·8	1·9	0·77	0·97	—0·20
	Do. do. (Hills)	6·5	5·1	2·80	2·23	+0·57
Punjab	Punjab (South-East)	1·4	1·5	0·54	0·60	—0·06
	Do. (South)	0·9	1·3	0·34	0·56	—0·22
	Do. (Central)	2·4	1·8	0·74	0·83	—0·09
	Do. (Submontane)	1·7	1·9	0·53	0·86	—0·33
	Do. (Hills)	5·0	5·4	2·08	2·69	—0·61
	Do. (North)	5·5	2·0	2·01	1·10	+0·91
	Do. (West)	2·0	1·0	0·88	0·45	+0·43
Bombay and Malabar Coast Districts (Madras).	Malabar	3·2	7·9	1·79	7·08	—5·29
	Travancore	5·4	...	4·15		
	Madras (South Central)	4·5	5·6	2·73	3·74	—1·01
	Coorg	4·8	...	1·76	...	
	Mysore*	...	...	1·31	3·48	—2·17
	Konkan	0·3	2·4	0.16	1·72	—1·56
	Bombay (Deccan)	1·3	3·4	0·64	1·80	—1·16
	Hyderabad (North) *	...	...	0	...	...
	Khandesh	0·1	1·7	0·03	1·07	—1·04
Central Provinces and Berar.	Berar*	...	...	0·02	0·59	—0·57
	Central Provinces (West)	0	1·0	0·02	0·48	—0·46
	Do. (Central)	0·5	1·3	0·19	0·57	—0·38
	Do. (East)	3·0	1·6	1·01	0·85	+0·16
Bombay (North)	Gujarat	0·4	0·5	0·19	0·30	—0·11
	Kathiawar and Cutch	0·6	0·4	0·36	0·24	+0·12
	Sind	0·2	...	0·03	0·11	—0·08
	Baluchistan Hills	1·2	...	0·33	0·13	+0·20
Rajputana and Central India.	Central India (East)	...	...	...	...	...
	Rajputana (East), Central India (West)	1·6	...	0·60	0·51	+0·09
	Rajputana (West)	1·2	...	0·47	0·53	—0·06
Madras	East Coast (North)	3·9	3·3	2·48	2·16	+0·32
	Do. (do.) (a)	6·0	6·0	3·83	3·02	+0·81
	Hyderabad (South)*	...	...	0·35	...	...
	Madras (Central)	2·2	2·8	1·28	1·67	—0·39
	East Coast (Central)	1·0	1·7	0·49	1·27	—0·78
	Do. (South)	2·4	3·0	1·70	2·18	—0·48
	Madras (South)	4·0	2·8	3·43	1·71	+1·72

* The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

All the divisions of Burma reported rain, the total for the month ranging from 15 inches in Tenasserim to 2¾ inches in Arakan. The only heavy fall of rain which occurred over this province was that of the first week when a depression was forming or moving over the Andaman Sea and heavyish rain fell in Tenasserim and Lower Burma. The month's fall was in defect in all divisions and in Central Burma and Arakan was in considerable to large defect. Arakan had practically no rain until the 17th and thereafter only light showers. The following gives comparative data for this province:—

Division.	Rainfall.			
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	15·05	20·83	− 5·78	−28
Lower Burma Deltaic	6·82	11·80	− 4·98	−42
Central Burma	3·12	6·89	− 3·77	−55
Upper ditto	3·82	6·01	− 2·19	−36
Arakan	2·70	21·70	−19·00	−88

In Assam the rainfall was also in defect, though less so in the Brahmaputra Valley than in other parts of the province. Light scattered rain occurred between the 1st and the 5th, light general rain between the 9th and the 11th and fairly general rain from the 17th to the end of the month. The rainfall on the hills was, as on the plains, lighter than usual and the total rainfall at Cherrapoonjee was 40·43 inches instead of the normal 52·32 inches. The heaviest fall in 24 hours reported at this station was 5·14 inches on the 26th. The following gives the rainfall variations for the three divisions of this province:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.	Average actual, May 1900.	Average normal, May.
	Inches.	Inches.	Inches.			
Assam Surma	10·96	18·80	−7·84	−42	13·4	16·3
„ Hills	9·14	15·15	−6·01	−40	13·2	15·3
„ Brahmaputra	9·46	12·20	−2·74	−22	11·7	14·8

Bengal received less rain than usual in all the divisions. In North Bihar, Chota Nagpur, Orissa, North Bengal and Deltaic Bengal the deficiencies were small and more or less unimportant, but in East and Central Bengal, the Bengal Hills and South Bihar the deficiencies were moderately large. The following gives comparative data for the different divisions:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.	Average actual, May 1900.	Average normal, May.
	Inches.	Inches.	Inches.			
Eastern Bengal	6·56	10·30	−3·74	−36	9·8	10·8
Deltaic „	6·01	6·14	−0·13	− 2	9·4	7·9
Central „	3·82	5·21	−1·39	−27	6·3	6·7
North „	8·83	10·56	−1·73	−16	10·6	11·0
Bengal Hills	6·96	11·38	−4·42	−39	12·6	13·4
Orissa	4·00	4·46	−0·46	−10	6·6	5·2
Chota Nagpur	2·30	2·73	−0·43	−16	5·0	4·0
South Bihar	1·10	1·70	−0·60	−35	2·0	2·2
North Bihar	2·74	3·15	−0·41	−13	4·2	4·2

In South-West Bengal there were more or less daily showers during the first half of the month, then a break from the 21st to the 25th and showers again from the 26th to the end of the month. These showers were most general and extensive on the 7th, 12th, 17th, 26th, 28th and 31st, but the falls were not heavy, and exceeded 2 inches in 24 hours only on the following days and at the following places:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
24-Parganas	Canning Town	11th May	2·10
Nadia	Ranaghat	17th „	2·45
Hooghly	Jahanabad	„ „	2·96
Khulna	Bagarhat	18th „	2·90
Jessore	Narail	„ „	2·66
Bankoora	Vishnupur	26th „	2·42
„	Onda	„ „	2·15
Midnapur	Tamluk	„ „	2·15
Bankoora	Raipur	„ „	2·10
Nadia	Kushtia	28th „	3·25

In North Bengal the weather was more or less showery throughout the month, but except during the last five days the rainfall amounts were not large. The following gives all the recorded falls of over 2 inches in 24 hours in this division :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JALPAIGURI	Jalpaiguri	1st May	2·77
DINAJPUR	Ramganj	4th ,,	3·15
JALPAIGURI	Jalpaiguri	7th ,,	3·33
DINAJPUR	Setabganj	8th ,,	2·50
JALPAIGURI	Kalchini	,, ,,	2·31
COOCH BEHAR	Dinhatta	9th ,,	3·04
RAJSHAI	Lalpur	19th ,,	2·35
RANGPUR	Bhawaniganj	25th ,,	2·45
,,	Bagdogra	26th ,,	2·44
JALPAIGURI	Falakata	27th ,,	3·76
DINAJPUR	Dinajpur	,, ,,	2·26
JALPAIGURI	Jalpaiguri	,, ,,	2·17
DINAJPUR	Raiganj	,, ,,	2·10
RANGPUR	Kurigaon	28th ,,	2·95
DINAJPUR	Churaman	,, ,,	2·32
COOCH BEHAR	Cooch Behar	,, ,,	2·25
,,	Dinhatta	29th ,,	2·25
RANGPUR	Sunderganj	,, ,,	2·02
JALPAIGURI	Alipore Duar	30th ,,	3·02
COOCH BEHAR	Fulbari	,, ,,	2·45
,,	Dinhatta	,, ,,	2·39
DARJEELING	Kurseong	,, ,,	2·05
COOCH BEHAR	Fulbari	31st ,,	3·35
,,	Cooch Behar	,, ,,	2·70
JALPAIGURI	Kalchini	,, ,,	2·36

East Bengal had showery weather throughout the month. The most general fall was between the 17th and 19th, but neither on that occasion nor at any other time during the month were the falls heavy. The following gives the occasions on which more than 2″ were received in 24 hours :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MYMENSINGH	Durgapur	1st May	2·10
CHITTAGONG	Mirsarai	7th ,,	2·33
MYMENSINGH	Durgapur	8th ,,	2·40
,,	,,	9th ,,	2·30
TIPPERA	Laksam	18th ,,	2·19
CHITTAGONG	Kutubdia	,, ,,	2·04
NOAKHALI	Noakhali	19th ,,	3·98
CHITTAGONG	Kutubdia	,, ,,	2·32
NOAKHALI	Noakhali	21st ,,	2·34
HILL TIPPERA	Agartola	22nd ,,	2·61
CHITTAGONG	Fenoa	,, ,,	2·53
,,	Kodala	,, ,,	2·03
CHITTAGONG HILL TRACTS.	Rangamati	23rd ,,	3·98
CHITTAGONG	Kutubdia	,, ,,	2·11
NOAKHALI	Chhagalnaya	,, ,,	2·11
BACKERGUNGE	Gaurnadi	26th ,,	3·02
MYMENSINGH	Durgapur	,, ,,	2·10
,,	,,	30th ,,	2·50

In Bihar showery weather was experienced from the 3rd to the 19th, then there occurred a week of fine weather after which there were scattered showers till the end of the month.

Orissa and Chota Nagpur had similar weather. Thunder showers were fairly frequent, though generally light, between the 1st and the 19th, then the weather more or less cleared and only scattered showers were received up to the end of the month.

The rainfall over the North-Western Provinces occurred mainly between the 14th and 18th when, as mentioned in a previous section, there occurred a burst of disturbed and thundery weather all over Northern India. The submontane districts also received showers between the 7th and the 9th and again between 25th and the 29th, but the only general fall of rain was that in the middle of the

month. The rainfall was not very heavy, but exceeded an inch in amount in 24 hours at the following places :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GORAKHPUR	Padrauna	3rd May	1·20
ALMORA	Pithoragarh	4th "	1·20
MAINPURI	Dhandhaus	13th "	1·60
BAREILLY	Aonla	14th "	1·20
GARHWAL	Lansdowne	15th "	1·41
ALMORA	Pithoragarh	16th "	2·30
MIRZAPUR	KORH	" "	1·38
ALMORA	Tanakpur	17th "	2·20
SAHARANPUR	Muhammadpur	" "	2·00
ALLAHABAD	Meja	" "	1·36
JALAUN	Orai	" "	1·30
MIRZAPUR	Chakia	" "	1·20
SAHARANPUR	Roorkee (Observatory)	" "	1·16
NAINI TAL	Satarganj	" "	10
GARHWAL	Karnprayag	" "	1·04
BAREILLY	Nawabganj	18th "	1·55
HARDOI	Bilgram	" "	1·53
FYZABAD	Akbarpur	" "	1·48
SULTANPUR	Amethi	" "	1·25
FARUKHABAD	Aligarh	" "	1·16
PILIBHIT	Bisalpur	" "	1·15
MORADABAD	Thakurdwara	" "	1·15
BAREILLY	Aonla	" "	1·14
NAINI TAL	Kashipur	19th "	1·99
ALMORA	Almora	" "	1·04
BAREILLY	Choreli	20th "	1·10
NAINI TAL	Haldwani	" "	1·10
ALMORA	Berenag	25th "	1·20
"	Puranathal	" "	1·20
NAINI TAL	Kathgodam	26th "	2·97
MUTTRA	Muttra	" "	1·40
BASTI	Bansi	" "	1·25
GARHWAL	Okhimath	29th "	1·34

Comparative data of the rainfall of the month are given below. The table shows that the total rainfall of the month was about normal over the greater part of the country and was in trifling excess in the east, the central, and the hill divisions :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.	Average actual, May 1900.	Average normal, May.
	Inches.	Inches.	Inch.			
North Western Provinces, East.	0·57	0·51	+0·06	+12	1·3	1·0
South Oudh	0·58	0·57	+0·01	+ 2	1·3	1·2
North Oudh	0·78	0·95	—0·17	—18	1·8	1·8
North Western Provinces, Central.	0·43	0·36	+0·07	+19	1·2	0·9
North Western Provinces, West.	0·34	0·48	—0·14	—29	1·1	1·2
North-Western Provinces, East Submontane.	1·07	1·19	—0·12	—10	2·3	1·9
North-Western Provinces, West Submontane.	0·77	0·97	—0·20	—21	1·8	1·9
North-Western Provinces, Hills.	2·80	2·23	+0·57	+26	6·5	5·1

In the Punjab the distribution of rain was similar to that in the North-Western Provinces, showers occurring between the 5th and the 8th, general rain falling between the 14th and the 20th, and showers again between the 26th and the 29th. There was, however, this difference between the two provinces, that the heavier rainfall occurred in the Punjab during the first rainfall period and in the North-Western Provinces during the second. This is shown in the following table which gives the falls of more than 1 inch in 24 hours in the Punjab :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SHAHPUR	Shahpur	5th May	1·15
SHAHPUR	Sakesar	6th "	1·28
KOHAT	Thal	" "	1·15
DERA ISMAIL KHAN	Shekhbudin	7th "	2·50
PESHAWAR	Nahakki	" "	1·92
PESHAWAR	Peshawar	" "	1·80
PESHAWAR	Charsadda	" "	1·73
BANNU	Isakhel	" "	1·61
DERA ISMAIL KHAN	Dera Ismail Khan	" "	1·54
KOHAT	Thal	" "	1·49

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PESHAWAR	Sawabi	7th May	1·42
BANNU	Marwat	" "	1·35
KANGRA	Nagar	" "	1·31
PESHAWAR	Mardan	" "	1·20
DERA ISMAIL KHAN	Tank	" "	1·17
MUZAFFARGARH	Sinanwan	" "	1·15
PESHAWAR	Nowshera	" "	1·14
PESHAWAR	Khanmahi	" "	1·10
SHAHPUR	Naushahera	12th "	1·12
GURGAON	Palwal	15th "	1·35
DELHI	Ballabgarh	" "	1·30
JHELUM	Chakwal	16th "	1·22
SIMLA	Simla	" "	1·04
SIMLA	Barauli	17th "	2·28
LAHORE	Niazbeg	" "	1·40
JHELUM	Talagang	" "	1·34
SIMLA	Simla	" "	1·27
HAZARA	Haripur	18th "	1·12
SHAHPUR	Sakesar	" "	1·04
KARNAL	Kaithal	" "	1·02
GURGAON	Rewari	26th "	1·25

The North and West Punjab received nearly twice the usual amount of rain during the month, but in the remaining divisions the total rainfall was normal or in slight defect. The following gives comparative data for the different divisions of the province :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.	Average actual, May 1900.	Average normal, May.
	Inches.	Inches.	Inch.			
South-East Punjab	0·53	0·60	−0·06	−10	1·4	1·5
South Punjab	0·34	0·56	−0·22	−39	0·9	1·3
Central Punjab	0·74	0·83	−0·09	−11	2·4	1·8
Punjab Submontane	0·53	0·86	−0·33	−38	1·7	1·9
Punjab Hills	2·08	2·69	−0·61	−23	5·0	5·4
North Punjab	2·01	1·10	+0·91	+83	5·5	2·0
West Punjab	0·88	0·45	+0·43	+96	2·0	1·0

Baluchistan had showery weather throughout the month, the principal periods of rainfall having been between the 5th and 7th, the 12th and 15th, the 19th and 25th and the 30th and 31st, so that the rainfall periods generally agreed with, but slightly preceded, those in Upper India. There was only one fall of 1 inch in 24 hours, *viz.*, at Fort Sandeman on the 6th, but the total rainfall of the month considerably exceeded the small normal amount.

Kashmir obtained rain during three periods *viz.*, between the 5th and the 8th, the 16th and the 19th and the 24th to the 26th. The falls were frequently heavy and the total of the month, so far as can be judged, considerably exceeded the normal. In this the rainfall of Kashmir agreed with that in the North Punjab.

The following gives the falls exceeding 1 inch in 24 hours :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KASHMIR	Sri Ranbir Singh Pora	6th May	1·82
	Domel	" "	1·51
	Lal Phak	" "	1·32
	Haripore	" "	1·20
	Sopore	" "	1·01
	Nagam	7th "	1·58
	Sri Ranbir Singh Pora	" "	1·44
	Sri Protap Singh Pora	" "	1·32
	Uri	" "	1·13
	Kotli	18th "	1·80
	Utar Machhipore	" "	1·15
	Domel	19th "	1·27
	Punch	21st "	1·14
	Sri Ranbir Singh Pora	25th "	1·11

This unsettled weather apparently extended westward into Eastern Persia where the total rainfall of the month was heavier than usual, as is shown below : —

STATION.	RAINFALL.			
	Actual, May 1900.	Normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.
	Inches.	Inch.	Inch.	
Meshed	1·66	0·81	+0·85	+105
Teheran	0·98	0·34	+0·64	+188
Ispahan	0·08	0·17	−0·09	− 51
Bushire	0·04	0·03	+0·01	+ 33
Jask	0	0	0	

Rajputana received general showers during the general burst of thundery, disturbed weather over Northern India. The showers were in many cases heavier than usual and exceeded 1 inch in 24 hours on the following occasions:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sirohi	Sirohi	13th May	2·05
Jaipur	Sekar	18th "	1·03
"	Samodh	19th "	2·52
"	Lakot	19th "	1·22
"	Sambhar	19th "	1·12
"	Jaipur	19th "	1·09
Alwar	Bahror	25th "	1·73
Bharatpur	Kaman	26th "	1·45

The month's rainfall was above the normal in several places, as is shown by the following comparative data for some of the larger states:—

STATE.	RAINFALL.			
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.
	Inches.	Inch.	Inch.	
Jodhpur	0·20	0·51	−0·31	− 61
Jaipur	1·23	0·42	+0·81	+193
Alwar	0·57	0·96	−0·39	− 41
Bharatpur	0·58	0·57	+0·01	+ 2
Kotah	0·18	0·79	−0·61	− 77
Ajmer	0·37	0·53	−0·16	− 30
Udaipur	0·85	0·54	+0·31	+ 57
Sirohi	0·84	0·90	−0·06	− 7

In Central India the showers were lighter and less general than in Rajputana. The following gives comparative data for the larger states and shows the lightness of the rainfall in the western states:—

STATE.	RAINFALL.			
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Indore	0·20	0·51	−0·31	− 61
Rutlam	0	0·41	−0·41	−100
Bhopal Agency	0·10	0·36	−0·26	− 72
Gwalior	0·07	0·41	−0·34	− 83
Nagode	0·88	0·39	+0·49	+126
Maihar	0·93	0·41	+0·52	+127
Rewah	0·71	0·37	+0·34	+ 92
Bundelkhand	0·67	0·33	+0·34	+103

In the Central Provinces there occurred a few light showers during the second half of the month. The amounts were generally small, the heaviest fall in 24 hours having been 1·18 inches at Korba (Bilaspur) on the 18th. The following gives comparative data for the divisions of the Central Provinces and Berar, and shows that the month was practically rainless except in the east:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.	Average actual, May 1900,	Average normal, May.
	Inches.	Inch.	Inch.			
Berar	0·02	0·59	−0·57	−97	...	...
Central Provinces, West	0·02	0·48	−0·46	−96	0	1·0
" " Central	0·19	0·57	−0·38	−67	0·5	1·3
" " East	1·01	0·85	+0·16	+19	3·0	1·6

In the Bombay Presidency the rainfall of the month was very light. There were some showers in North Kanara between the 20th and the 23rd of which the only heavy fall was 1·29 inches at Siddapur on the 20th. There were moderately general showers over the Karnatak division between the 20th and the 30th, when the following falls exceeding 1 inch in 24 hours were registered:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
BELGAUM	Chikode	20th May	2·57
DHARWAR	Hangal	" "	2·38
"	Dharwar	" "	1·39
"	Haveri	" "	1·21

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
KOLHAPUR AND OTHER SOUTHERN MARATHA COUNTRY STATES	Ramdurg	20th May	1·04
BIJAPUR	Bilgi	24th ,,	1·10
,,	Hungund	,, ,,	1·10
DHARWAR	Mundargi	,, ,,	1·10
,,	Dharwar	,, ,,	1·01
,,	,,	28th ,,	1·01
,,	Kalghatgi	30th ,,	1·03
KOLHAPUR AND OTHER SOUTHERN MARATHA COUNTRY STATES.	Ramdurg	,, ,,	1·02

There was practically no rain in the Deccan, but there were showers in Gujarat and Kathiawar between the 13th and 15th when the disturbed weather in Northern India occurred. Several of these thundershowers were moderately heavy, as is shown below, and the total rainfall of the month exceeded the normal in the Kathiawar and Cutch divisions :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
KATHIAWAR	Bhavnagar	13th May	2·34
,,	Palitana	14th ,,	2·75
AHMEDABAD	Gogha	,, ,,	1·68
,,	Parantij	15th ,,	2·50
MAHIKANTHA	Ahmednagar	,, ,,	1·58

In Sind there was practically no rain during the month. The following table gives comparative data for the Bombay Presidency :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	Percentage variation from normal.	Average actual, May 1900.	Average normal, May.
	Inch.	Inches.	Inches.			
Konkan	0·16	1·72	—1·56	—91	0·3	2·4
Bombay Deccan	0·64	1·80	—1·16	—64	1·3	3·4
Khandesh	0·03	1·07	—1·04	—97	0·1	1·7
Gujarat	0·19	0·30	—0·11	—37	0·4	0·5
Kathiawar and Cutch	0·36	0·24	+0·12	+50	0·6	0·4
Sind	0·03	0·11	—0·08	—73	0·2	

The rainfall was thus generally considerably to largely below the normal except in Kathiawar, where it exceeded the small monthly average.

The rainfall in the Madras Presidency was rather irregularly distributed. There was no advance of monsoon winds into Malabar and South India at the end of the month, and the rainfall in Travancore and Malabar mainly occurred during showers. The first showery period occurred on the 1st and 2nd when the following falls exceeding 2 inches were recorded in this region :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TRAVANCORE STATE	Ambalapuzha	1st May	4·07
	Shencottah	,, ,,	3·10
	Thiruvellah	,, ,,	2·25
	Neyattinkaray	,, ,,	2·24
	Karunagapally	,, ,,	2·10
	Kottarakaray	2nd ,,	3·25
MALABAR	Calicut	,, ,,	3·00
TRAVANCORE STATE	Meenachil	,, ,,	2·96
	Alleppey	,, ,,	2·95
	Kunnattur	,, ,,	2·16
	Pattanapuram	,, ,,	2·02

The second showery period was longer and lasted from the 19th to the 25th. The showers on this occasion were not very heavy, but exceeded 2 inches in 24 hours at the following places :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TRAVANCORE STATE.	Pattanapuram	21st May	3·68
	Meenachil	22nd ,,	2·10
	Neyattinkaray	23rd ,,	2·58
	Kartigapally	24th ,,	2·80
	Mavelikara	,, ,,	2·03

In South India there was a burst of moderate to heavy rain on the 1st and 2nd, showers in the middle of the month and another burst of rain on the 29th. The

heaviest rainfall occurred during the first burst, when the following moderate to large amounts in 24 hours were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TINNEVELLY	Keeravur	1st May	1·78
	Kayalpatnam	" "	1·75
MADURA	Mutturoghunadpatnam	2nd "	7·26
	Paramagudi	" "	3·42
TINNEVELLY	Watrap	" "	3·14
	Tuticorin	" "	2·85
	Arasadi	" "	2·60
MADURA	Tiruchuli	" "	2·56
TINNEVELLY	Sattur	" "	2·28
MADURA	Mudukulattur	" "	2·26
TINNEVELLY	Radhapuram	" "	2·24
MADURA	Tirumangalam	" "	1·89
TINNEVELLY	Nanguneri	" "	1·75

Along the East Coast there were showers. These were fairly frequent throughout the month in the northern division and infrequent in the central and south divisions. The only days of general rainfall were the 27th to the 29th, when the whole of the East Coast received more or less rain and the following falls exceeding 1 inch in 24 hours were registered :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PUDUKKOTTAI STATE	Adanakkottai	27th May	1·73
GODAVARI	Razole	" "	1·71
VIZAGAPATAM	Bissamcuttack	" "	1·60
GODAVARI	Addatigala	" "	1·55
VIZAGAPATAM	Bimlipatam	" "	1·52
GANJAM	Balliguda	" "	1·35
	Ichchhapuram	" "	1·25
GODAVARI	Chodavaramu	" "	1·19
VIZAGAPATAM	Annakapalle	" "	1·18
VIZAGAPATAM	Konada	" "	1·16
VIZAGAPATAM	Pottanghi	" "	1·10
	Saluru	" "	1·06
	Chodavaramu	" "	1·04
NORTH ARCOT	Puttur	28th May	2·36
PUDUKKOTTAI STATE	Adanakkottai	" "	1·84
	Keelanilai	" "	1·70
PUDUKKOTTAI STATE	Alangudi	" "	1·28
TANJORE	Shiyali	" "	1·06
TRICHINOPOLY	Thuraiyur	29th "	2·90
	Lalgudi	" "	2·30
PUDUKKOTTAI STATE	Pudukkottai	" "	2·18
TRICHINOPOLY	Trichinopoly	" "	2·15
NELLORE	Kanigiri	" "	1·95
TRICHINOPOLY	Ariyalur	" "	1·88
TANJORE	Arantangi	" "	1·77
TRICHINOPOLY	Perambalur	" "	1·75
TANJORE	Nidamangolam	" "	1·74
VIZAGAPATAM	Bobbili	" "	1·43
	Gajapatinagaram	" "	1·41
TRICHINOPOLY	Kilattaluvur	" "	1·40
TANJORE	Tiruvadi	" "	1·34
VIZAGAPATAM	Pottanghi	" "	1·05
NELLORE	Addanki	" "	1·02

In South Central Madras there was fairly general rain on the 1st and 2nd, again on the 19th and finally on the 28th and 29th. The last was the most important fall, and the following amounts exceeding 2 inches in 24 hours were recorded :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
COIMBATORE	Kangayam	29th May	3·35
	Udamalpet	" "	2·60
SALEM	Thammampatti	" "	2·58

Central Madras received practically no rain up to the 23rd. On the 24th there was general and heavy rain, and between the 27th and 30th there were light showers.

During the fall on the 24th the following amounts exceeding 1 inch in 24 hours were registered :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BELLARY	Adoni	24th May	3·42
	Kudligi	" "	3·18
	Alur	" "	2·25
	Hospet	" "	2·13
	Hadagalli	" "	1·94
	Bellary	" "	1·91
ANANTAPUR	Penukonda	" "	1·82
BELLARY	Kampli	" "	1·75
CUDDAPAH	Rayachoti	" "	1·57
KURNOOL	Sirvel	" "	1·54
	Kalwa	" "	1·28
BELLARY	Harpanahalli	" "	1·13
	Yemmiganuru	" "	1·11

The total rainfall of the month was twice as heavy as usual in South Madras, and slightly heavier than usual in the north division of the East Coast, but in the remaining divisions of the Presidency the total rainfall was less than usual. The deficiency was large in Malabar (—75%), considerable in the central division of the East Coast (—61%) and slight elsewhere. The following table gives a summary of the rainfall for each district or collectorate of the Madras Presidency :—

DISTRICT.	NUMBER OF RAINY DAYS.		RAINFALL.			Percentage variation from normal.
	Average actual, May 1900.	Average normal, May.	Average actual, May 1900.	Average normal, May.	Variation of actual from normal, May 1900.	
			Inches.	Inches.	Inches.	
Ganjam	5·1	4·0	3·33	2·52	+0·81	+32
Vizagapatam	5·2	3·8	3·24	2·63	+0·61	+23
Godavari	3·2	2·5	2·51	1·74	+0·77	+44
Kistna	2·1	2·1	1·09	1·43	—0·34	—24
Nellore	1·0	1·7	0·49	1·27	—0·78	—61
Chingleput	0	1·3	0·18	1·36	—1·18	—87
Madras	0	2·0	0	2·00	—2·00	—100
North Arcot	2·7	3·4	1·17	2·47	—1·30	—53
South	2·0	2·6	1·01	2·13	—1·12	—52
Tanjore	3·2	2·5	2·21	2·00	+0·21	+11
Trichinopoly	3·9	4·2	3·08	3·05	+0·03	+ 1
Madura	4·6	3·2	3·57	2·20	+1·37	+62
Tinnevelly	3·3	2·2	3·34	1·38	+1·96	+142
Malabar	4·3	2·3	2·54	7·78	—5·24	—67
South Canara	1·4	6·8	0·57	5·84	—5·27	—90
Salem	4·1	5·8	2·47	4·09	—1·62	—39
Coimbatore	4·8	5·2	3·08	3·32	—0·24	— 7
Nilgiris	7·1	8·9	3·96	5·17	—1·21	—23
Cuddapah	1·7	2·7	0·94	1·72	—0·78	—45
Anantapur	2·5	3·2	0·99	1·93	—0·94	—48
Bellary	2·3	3·3	2·42	1·84	+0·58	+31
Kurnool	2·3	2·3	0·88	1·20	—0·32	—27

Tabl

Abstract of Observations taken at 8 A.M. at 21

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure 8 A.M. in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
	I.—Burma Coast and Bay Islands.				+·037								90·8	+0·2	77·6	0	84·1	+0·1	12·9					2
1	Tenasserim and Bay Islands.	Car Nicobar	25	29·809		29·761	29·882	20th	29·715	28th	·167	80·3	87·0		77·2		82·6		10·7	91·8	25th	74·7	3rd	17
		Port Blair	61	29·852	+·064	29·844	29·932	19th	29·759	3 rd	·173	83·2	89·7		79·5		84·6		10·2	93·7	24th	75·5	3rd	18
		Mergui	96	29·816	+·033	29·844	29·905	19th	29·762	23rd	·143	82·2	89·0	−0·4	75·9	?	82·5	?	13·1	96·1	1st	73·4	3 days	22
		Tavoy	26	29·883	+·012	29·840	29·955	19th	29·825	3rd	·130	80·1	88·7	+0·3	75·8	+0·7	82·3	+0·5	12·9	93·7	1st	74·0	4 days	19
		Moulmein	94	29·799	+·031	29·829	29·881	19th	29·663	5th	·218	79·6	88·8	−1·2	76·1	+0·4	82·5	−0·4	12·7	96·0	1st	72·3	6th	23
2	Lower Burma	Rangoon	41	29·839	+·025	29·817	29·924	19th	29·736	5th	·188	81·1	91·3	−1·2	77·2	0	84·3	−0·6	14·1	97·6	13th	70·9	5th	26
		Bassein	27	29·853	+·040	29·815	29·949	19th	29·787	23rd	·162	83·1	92·0	0	78·7	+1·8	85·4	+0·9	13·3	98·2	14th	75·6	4th	22
		Diamond Island,	41	29·848	+·046	29·824	29·946	19th	29·784	24th	·162	84·3	88·7	−0·3	81·2	?	85·0	?	7·5	91·6	25th	75·7	6th	15
5	Arakan	Akyab	20	29·839	+·043	29·802	29·946	20th	29·764	24th	·182	84·2	94·2	+3·7						98·9	2 days			
3	Central Burma	Toungoo	183	29·686	+·041	29·811	29·757	19th	29·621	23rd	·136	84·5	98·0	+1·8	76·7	+0·3	87·4	+1·1	21·3	104·7	15th	66·2	23rd	3
	II.—Burma Inland.				+·052								97·6	+0·5	75·9	−0·7	86·8	−0·1	21·7					3
3	Central Burma	Thayetmyo	134	29·733	+·049	29·808	29·806	19th	29·655	23rd	·151	86·3	100·0	+0·6	78·4	+0·9	89·2	+0·8	21·6	105·3	23rd	71·6	4th	3
4	Upper Burma	Minbu	165	29·686	+·053	29·794	29·771	19th	29·612	31st	·159	84·6	100·4	+3·1	80·0	?	90·2	?	20·4	106·1	2 days	74·6	2 days	3
		Yamethin	657	29·197	+·062	29·803	29·256	19th	29·128	23rd	·128	82·8	97·4	+1·8	75·5	−0·9	86·5	+0·5	21·9	103·0	2 days	68·7	11th	3
		Mandalay	250									85·8	97·5	−1·9	77·7	−0·9	87·6	−1·4	19·8	104·6	15th	71·1	4th	3
		Kindat	377	29·484	+·033	29·815	29·577	10th	29·394	31st	·183	79·2	94·7	−0·2	72·5	−1·0	83·6	−0·6	22·2	100·8	21st	62·3	2nd	3
		Bhamo	381	29·465	+·061	29·803	29·563	1st	29·366	24th	·197	79·2	95·5	+2·0	71·1	−1·5	83·3	+0·3	24·4	103·6	15th	65·1	2nd	3
(a)	Burma Hill Stations.	Maymyo										71·2	79·9		58·3		69·1		21·6	86·0	7th	52·0	13th	3
		Taunggyi										69·9	75·0	−5·3	62·4	−0·3	68·7	−2·8	12·6	81·2	13th	58·0	7th	2
		Lashio		27·077	+·030		27·140	3rd	27·014	31st	·126	74·3	87·5	+0·8	65·5	−0·6	76·5	+0·1	22·0	93·5	3 days	62·0	6 days	3
	III.—Assam.				+·055								87·5	+0·7	71·6	−0·5	79·6	+0·1	15·9					2
7	Surma	Silchar	104	29·765	+·060	29·822	29·858	9th	29·660	23rd	·198	77·4	89·9	+1·9	71·7	−0·4	80·8	+0·8	18·2	96·6	15th	63·3	1st	2
9	Brahmaputra	Sibsagar	333	29·528	+·048	29·821	29·638	1st	29·390	23rd	·248	75·9	85·7	−0·6	71·5	0	78·6	−0·3	14·2	93·2	16th	67·0	1st	2
		Dhubri	115	29·721	+·056	29·792	29·810	1st	29·572	23rd	·238	76·6	86·8	+0·9	71·7	−1·1	79·3	−0·1	15·1	93·2	16th	67·7	1st	2
	IV.—Bengal and Orissa.				+·066								93·7	+0·8	75·1	−0·8	84·4	+0·1	18·5					3
6	East Bengal	Chittagong	87	29·760	+·052	29·795	29·843	10th	29·677	23rd	·166	81·5	90·6	+2·6	74·3	−0·8	82·5	+0·9	16·3	94·5	2 days	69·1	24th	2
		Noakhali	43	29·789		29·779	29·866	10th	29·677	24th	·189	81·1	90·8		72·3		81·5		18·5	95·2	15th	65·9	12th	2
		Comilla	36	29·803		29·792	29·881	1st	29·698	23rd	·183	80·8	92·6		72·9		82·8		19·7	96·3	15th	67·8	3 days	2
		Sirajganj	49	29·764		29·763	29·851	12th	29·630	23rd	·221	79·4	92·0		73·8		82·9		18·2	97·3	17th	69·2	12th	2
		Narayanganj	26	29·805	+·061	29·780	29·881	19th	29·677	24th	·204	81·4	91·4	+0·6	74·7	−0·8	83·1	−0·1	16·7	94·6	15th	68·7	30th	2
		Barisal	13	29·818	+·072	29·776	29·898	9th	29·702	23rd	·196	84·3	92·8	+1·7	75·8	−0·8	84·4	+0·5	17·0	95·3	3 days	70·1	12th	2
		Mymensingh	59	29·772	+·051	29·783	29·854	19th	29·648	24th	·206	79·0	89·3*	+1·0*	73·5	0	81·5*	+0·5	15·8	94·7	16th	68·1	30th	2
10	Deltaic Bengal	Faridpur	46	29·788		29·782	29·878	19th	29·660	23rd	·218	80·3	92·3		73·7		83·0		18·6	96·3	23rd	66·9	31st	2
		Jessore	33	29·783	+·065	29·763	29·876	13th	29·644	24th	·232	82·7	94·5	+0·3	74·7	−1·7	84·6	−0·7	19·8	99·5	23rd	67·2	7th	3
		Calcutta	21	29·786	+·069	29·752	29·890	13th	29·628	24th	·262	83·6	95·6	+2·1	76·2	−0·7	85·9	+0·7	19·4	99·4	24th	69·7	7th	2
		Saugor Island	25	29·780	+·063	29·749	29·882	9th	29·636	24th	·216	85·4	91·9	+0·4	79·1	−1·4	85·5	−0·5	12·8	92·9	10 days	70·6	13th	2
		Krishnagar	47	29·764		29·760	29·870	13th	29·600	24th	·270	82·9	96·2		75·0		85·6		21·2	101·7	23rd	67·7	12th	2
		Midnapore	149	29·644		29·739	29·749	9th	29·474	24th	·275	83·8	98·5		76·8		87·7		21·7	106·4	23rd	71·2	12th	2

* Mean of 30 days.

I.

Stations in India, Burma, etc., in May, 1900.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW	W.	NW	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 31st May 1900.	Normal rainfall for period, 1st March to 31st May.	Variation from normal of period, 1st March to 31st May.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				11·12	12·68	−2·07					I.—Burma Coast and Bay Islands.		
	2	2	3	7	7	1	2		S 36° E	1·3	1·3			92	·958	8·3	17			15·69			17·15			5·30	Car Nicobar.†	Tenasserim and Bay Islands.	1
				2	1	4	12	12	N 82° W	7·8		7·3	+ 7	86	·981	6·8	10			13·42	15·74	−2·32	15·64	18·39	− 2·75	3·39	Port Blair.		
30					1				S	2·0	1·8	2·1	−14	86	·938	4·5	13			11·96	18·04	−6·08	19·57	27·48	− 7·91	2·64	Mergui.		
29						2			S 45° W	0·6				90	·924	4·5	17			19·54	18·49	+1·05	24·34	30·43	− 6·09	3·39	Tavoy.		
										2·8	3·1	3·1	0	87	·881	5·9	16	15·45	+0·55	18·29	17·45	+0·84	19·15	20·81	− 1·66	3·80	Moulmein		
	2	3	2	2	6	10	4	2	S 38° W	3·9		3·9	0	87	·934	6·9	13	9·36	+3·64	13·35	9·42	+3·93	13·51	11·53	+ 1·98	3·08	Rangoon .	Lower Burma.	2
13		1		4		2	5	6	W	4·6		5·0	− 8	83	·942	5·8	9	12·27	−3·27	5·02	8·33	−3·31	5·24	9·83	− 4·59	1·71	Bassein.		
3	1	2	5	1	1	3	8	7	N 65° W	9·0	9·0	4·5	+50	78	·926	6·2	11	11·18	−0·18	6·35	8·55	−2·20	6·61	9·72	− 3·11	2·05	Diamond Island.		
	5	14	8	3	1				N 59° E	2·3		7·0	−67	78	·920	4·0	8	10·18	−2·18	1·98	12·30	−10·32	2·63	13·80	−11·17	0·32	Akyab. .	Arakan.	5
5			1	17	6	2			S 31° E	4·8	4·8	3·5	+37	78	·934	5·7	13	10·09	+2·91	5·59	5·77	−0·18	6·99	7·91	− 0·92	1·24	Toungoo .	Central Burma.	3
																				4·15	4·89	−0·74					II.—Burma Inland.		
2	1	2		4	16	3	1	2	S 1° W	6·0		7·3	−18	66	·831	2·5	6	6·64	−0·64	3·06	3·72	−0·66	3·30	4·57	− 1·27	1·40	Thayetmyo .	Central Burma.	
7	1		1	18	1			3	S 47° E	3·9	4·6			71	·840	3·7	4			1·70	4·25	−2·55	1·70	6·86	− 5·16	0·86	Minbu .	Upper Burma.	3
5				16	9			1	S 29° E	9·5	9·7			77	·864	4·4	8			9·78	4·07	+5·71	12·19	6·72	+ 5·47	2·93	Yamethin.		4
3	4		1	3	17	3			S 3° E	6·5	6·6			68	·839	1·3	6			4·32	5·56	−1·24	6·52	7·22	− 0·70	1·25	Mandalay.		
17	4		1	2		2	1	4	N 35° W	2·0	2·1			81	·810	4·1	7			3·55	5·73	−2·18	5·07	7·82	− 2·75	0·99	Kindat.		
6	3	10	1			4	3	4	N 3° W	2·9	3·4			74	·733	7·1	8			2·49	6·02	−3·53	5·00	8·80	− 3·80	0·76	Bhamo.		
8		3		3		17			S 34° W					86	·654												Maymyo.	Burma Hill Stations.	4(a)
		1	1	1	3	11	12	2	S 64° W					81	·594	5·8	11			7·40	10·51	−3·11	7·94	11·74	− 3·80	1·87	Taunggyi .		
														79	·672	6·1	6			3·28	5·67	−2·39	6·20	9·57	− 3·37	1·23	Lashio.		
																				14·27	14·52	−0·24					III.—Assam.		
24			4	1				2	N 78° E	1·8	3·1	3·4	− 9	86	·814	6·9	14	16·46	−2·46	10·13	16·95	−6·82	47·79	40·00	+ 7·79	1·59	Silchar .	Surma.	
14	6	10				1			N 27° E	3·4	3·1	2·9	+ 7	89	·793	7·5	12	16·26	−4·26	10·27	12·63	−2·36	27·47	27·07	+ 0·40	4·12	Sibsagar .	Brahmaputra.	7
2		7	15	5			2		N 86° E	5·4	6·4	7·0	− 9	85	·781	5·0	15	15·20	−0·20	22·42	13·97	+8·45	30·49	20·73	+ 9·76	5·30	Dhubri.		9
																				5·91	7·13	−1·22					IV.—Bengal and Orissa.		
		5	5	18	2	1			S 60° E	5·8	5·8	6·4	− 9	78	·845	4·7	9	10·69	−1·69	6·51	10·48	−3·97	9·47	16·85	− 7·38	1·75	Chittagong .	East Bengal.	
	2	7	6	7	3	5		1	S 72° E	4·1	3·8			85	·836	4·9	10	10·46	−0·46	9·05	10·31	−1·26	16·82	18·63	− 1·81	3·98	Noakhali.		6
1	1	1	5	9	14				S 32° E	7·2				79	·830	4·1	10	12·09	−2·09	5·81	11·46	−5·65	13·23	20·23	− 7·00	1·05	Comilla.		
12		2	6	6	3	1	1		S 55° E	2·3	2·4			81	·815	5·4	5	10·23	−5·23	3·07	8·04	−4·97	6·28	12·47	− 6·19	0·95	Sirajganj.		
3	2	4	8	10	1	2		1	S 76° E	6·3		6·2	+ 2	82	·882	5·0	11	10·85	+0·15	5·39	10·28	−4·89	10·11	18·12	− 8·01	1·46	Narayanganj.		
1	1	5	1	4	8	8	1	2	S 5° W	4·5			.	78	·926	5·1	8	10·08	−2·08	5·48	8·09	−2·61	8·99	13·84	− 4·85	2·01	Barisal.		
11			9	10	1				S 63° E	0·9	0·9			81	·806	5·1	13	13·35	−0·35	8·21	11·75	−3·54	25·01	18·21	+ 6·80	1·56	Mymensingh.		
10	1	1	7	2	10				S 42° E	2·5	3·0			86	·894	4·0	11	10·73	+0·27	8·37	8·74	−0·37	12·33	15·54	− 3·21	1·67	Faridpur .	Deltaic Bengal.	10
16	1	3	2	2	6	1			S 45° E	2·8	2·7	4·9	−45	81	·916	5·0	8	9·58	−1·58	7·18	8·74	−1·56	10·58	13·48	− 2·90	2·16	Jessore.		
1		1	5	3	6	15			S 9° W	6·6	7·1	7·1	0	79	·922	3·7	8	7·24	+0·76	4·17	7·62	−3·45	7·04	8·74	− 1·70	1·07	Calcutta.		
	1	1	1	3	13	11	1		S 13° W	17·5		15·3	+14	81	·986	4·9	9	6·73	+2·27	4·77	5·43	−0·66	6·40	6·99	− 0·59	1·32	Saugor Island		
	1	2	6	5	10	4	2	1	S 21° E	4·9				77	·871	2·9	8	7·62	+0·38	4·67	5·76	−1·09	8·43	9·47	− 1·04	1·40	Krishnagar.		
4	3			2	21	1			S 3° E	4·4	5·8			75	·874	1·5	8	7·00	+1·00	4·52	5·07	−0·55	8·37	8·09	+ 0·28	1·21	Midnapore.		

† Wind variable 5.

Table

Abstract of Observations taken at 8 A.M. at 217 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
11	Central Bengal.	Bankura*	298	29·464		29·712	29·568	9th	29·287	24th	·281	82·6	98·2		76·9		87·6		21·3	110·6	25th	67·6	12th	43·0
		Raniganj	334	29·450		29·733	29·557	9th	29·262	24th	·295	81·9	97·4		76·5		87·0		20·9	108·3	25th	67·0	12th	41·3
		Burdwan	99	29·700	+·065	29·747	29·809	13th	29·520	24th	·289	82·1	95·9	−1·3	76·0	−1·2	86·0	−1·3	19·9	104·4	23rd	68·8	12th	35·6
		Naya Dumka	489	29·301		29·746	29·403	19th	29·119	24th	·284	83·3	96·8		75·1		86·0		21·7	106·0	24th	66·9	15th	39·1
		Berhampore	67	29·733	+·065	29·749	29·832	2 days	29·561	24th	·271	81·8	96·9	+1·2	75·4	−0·6	86·1	+0·3	21·5	107·2	24th	68·2	2 days	39·0
		Rampur Boalia	70	29·706?		29·726†	29·801	13th & 19th	29·544	23rd	·257	82·2	95·6		75·2		85·4		20·4	104·5	23rd	68·1	12th	36·4
		Malda	72	29·723		29·747	29·836	13th & 19th	29·539	23rd	·297	82·2	96·0		74·4		85·2		21·6	103·6	23rd	68·0	4th	35·6
		Bogra	61	29·753		29·767	29·846	14th	29·610	23rd	·236	79·1	92·7	+0·5	73·5	−0·7	83·1	−0·1	19·2	104·3	23rd	67·7	9th	36·6
12	North Bengal	Dinajpur	123	29·687	+·066	29·765	29·790	12th	29·512	23rd	·278	78·7	92·9	+1·8	72·4	−1·3	82·7	+0·3	20·5	100·3	2 days	67·9	17th	32·4
		Rangpur	123	29·702		29·781	29·796	14th	29·551	23rd	·245	78·9	90·5		70·4		80·5		20·1	96·3	16th	65·3	17th	31·0
		Jalpaiguri	284	29·550	+·055	29·795	29·647	13th	29·408	23rd	·239	77·7	89·7	+2·1	71·9	+0·8	80·8	+1·5	17·8	94·4	2 days	68·1	10th	26·3
		Cooch Behar	156	29·682		29·796	29·782	13th	29·540	23rd	·242	77·6	88·3		71·9		80·1		16·4	94·4	9th	67·6	17th	26·8
17	North Bihar	Purnea	125	29·693	+·081	29·773	29·800	13th	29·509	23rd	·291	81·3	95·9	+1·4	72·8	−0·8	84·4	+0·3	23·1	102·3	2 days	62·3	4th	40·0
14	Orissa	Balasore	46	29·756	+·085	29·748	29·853	19th	29·608	24th	·245	84·1	94·8	−0·8	76·1	−1·8	85·5	−1·3	18·7	101·5	25th	68·3	2 days	33·2
		False Point	21	29·793	+·073	29·755	29·883	9th	29·674	24th	·209	85·8	90·8	−0·3	78·9	−0·3	84·9	−0·3	11·9	92·5	26th	69·6	13th	22·9
		Cuttack	80	29·725	+·070	29·747	29·817	9th	29·589	24th	·228	85·4	101·5	+0·1	79·5	0	90·5	+0·1	22·0	109·0	24th	73·2	5th	35·8
		Shortt's Island	25	29·778		29·746	29·881	14th	29·626	24th	·255	85·5	90·8		79·6		85·3		11·2	93·0	12th	71·5	26th	21·5
		Puri	20	29·798		29·761	29·891	20th	29·686	24th & 25th.	·205	84·8	90·7		80·0		85·4		10·7	93·2	18th	68·1	4th	25·1
	V.—Gangetic Plain and Chota Nagpur.		...	...	+·069	...	...	...	...	...	...	...	100·6	−1·3	77·3	−0·1	88·9	−0·6	23·3	...	...	...	...	39·4
15	Chota Nagpur	Hazaribagh	2,007	27·784	+·061	29·719	27·895	15th	27·664	24th	·231	82·4	97·1	−1·2	74·9	+0·6	86·0	−0·3	22·2	106·1	25th & 31st.	68·3	18th	37·8
		Ranchi	2,128	27·674	+·066	29·727	27·800	19th	27·555	24th	·245	81·3	97·5	−0·5	73·6	−0·3	85·6	−0·4	23·9	106·3	25th	65·4	14th	40·9
		Daltonganj	730?	29·019		29·701	29·159	15th	28·874	24th	·285	83·7	105·9		77·8		91·9		28·1	113·1	25th & 31st	69·0	1st	44·1
		Purulia		?		?						83·3	99·6		76·2		87·9		23·4	110·7	25th	67·9	12th	42·8
		Chaibassa	760	29·015		29·720	29·116	19th	28·867	24th	·249	83·8	100·6	?	76·6	−2·2	88·6	?	24·0	110·2	25th	71·0	17th	39·2
16	South Bihar	Gaya	375	29·384	+·064	29·710	29·502	10th	29·218	24th	·284	87·1	104·0	−0·1	80·5	?	92·3	?	23·5	110·3	2 days	68·8	10th	41·5
		Dehri	351	29·403		29·705	29·520	14th & 19th	29·228	24th	·292	87·3	103·6		79·8		91·7		23·8	111·9	25th	71·0	10th	40·9
		Patna	183	29·599	+·074	29·735	29·721	13th & 19th.	29·395	23rd	·326	82·8	98·8	−0·8	76·9	−0·3	88·0	−0·6	21·9	107·0	24th	68·2	10th	38·8
		Arrah	190	29·588		29·729	29·727	13th	29·394	24th	·333	84·7	100·3		78·2		89·3		22·1	107·4	24th	71·0	10th	36·4
		Buxar	239	29·526		29·719	29·647	10th & 14th.	29·344	24th	·303	85·8	101·3		79·2		90·3		22·1	108·0	25th	72·1	17th	35·9
17	North Bihar	Bhagalpur	160	29·623		29·736	29·733	13th	29·433	23rd	·300	82·5	96·9		75·5		86·2		21·4	103·3	23rd	69·1	7th	34·2
		Darbhanga	166	29·623	+·062	29·743	29·737	2 days	29·437	23rd	·300	82·1	95·2	−0·2	75·8	0	85·5	−0·1	19·4	103·3	23rd	68·9	10th	34·4
		Muzaffarpur	178	29·617		29·747	29·737	18th	29·426	23rd	·311	82·4	95·8		75·0		85·4		20·8	104·2	24th	69·2	10th	35·0
		Motihari	224	29·562		29·743	29·744	18th	29·353	23rd	·391	80·0	95·9		73·8		84·9		22·1	104·0	24th	66·8	4th & 10th.	37·2
		Chapra	181	29·596		29·731	29·721	18th	29·413	23rd & 24th.	·308	84·3	99·6		77·3		88·5		22·3	107·7	24th	71·6	10th	36·1
18	N.-W. P., East	Benares	267	29·485	+·066	29·705	29·633	15th	29·319	24th	·314	85·8	103·5	−1·1	79·3	+0·8	91·4	−0·2	24·2	111·3	30th	70·1	1st	41·2
		Allahabad	309	29·440	+·063	29·700	29·623	15th	29·290	24th	·333	89·0	104·8	−1·4	79·6	+1·0	92·2	−0·2	25·2	113·1	31st	70·8	17th	42·3
23	N.-W. P. (East Submontane).	Gorakhpur	256	29·524	?	29·739	29·708	15th	29·331	23rd	·377	82·2	97·8	−2·7	76·0	−0·7	86·9	−1·7	21·8	107·2	24th	68·7	10th	38·5
19	South Oudh	Lucknow	368	29·384	+·069	29·709	29·536	14th	29·216	24th	·320	86·0	104·5	?	77·4	+1·2	90·9	?	27·1	112·3	25th	67·3	1st	45·0
20	North Oudh	Bahraich	403	29·360	?	29·752	29·492	13th	29·172	23rd	·320	83·9†	98·8†	−2·4†	77·5	−0·2	87·6†	−1·3†	21·3†	105·3	3 days	70·0	1st	35·3
21	N.-W. Provinces (Central).	Cawnpore	416	29·326	+·083	29·691	29·453	14th	29·180	31st	·274	88·2	105·1	−0·3	79·4	?	92·3	?	25·7	112·0	25th	67·0	1st	45·0
		Mainpuri	516	29·220	+·080	29·688	29·370	19th	29·076	31st	·294	88·0	105·7	−1·8	79·6	+0·2	92·7	−0·8	26·1	112·7	30th	68·0	18th	44·7

*Mean of 30 days.

† Mean of 23 days.

-continued.

India, Burma, etc., in May, 1900—continued.

Wind Direction. Number of winds from N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 31st May 1900.	Normal rainfall for period, 1st March to 31st May.	Variation from normal of period, 1st March to 31st May.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
1	1	1	4	3	2	3		S 1° E	3·8	4·1			73	·809	2·7	8	6·54	+ 1·46	5·65	4·41	+ 1·24	10·41	6·83	+ 3·48	1·29	Bankura	Central Bengal	11
1	5	5	5	1	2			S 85° E	1·9				73	·797	2·3	6	5·23	+ 0·77	4·67	3·68	+ 0·99	10·73	5·77	+ 4·96	1·92	Raniganj.		
1	7	2	1	8	7	1	1	S 8° E	4·4	4·4	5·5	−20	78	·863	3·3	9	7·31	+ 1·69	6·03	5·73	+ 0·30	9·67	9·37	+ 0·30	1·00	Burdwan.		
	1	9	6	4	2	2	1	S 51° E	1·9	2·1			67	·767	2·8	9	5·16	+ 3·84	5·36	3·59	+ 1·77	6·59	5·40	+ 1·19	1·58	Naya Dumka.		
		8		8	4			S 24° E	3·5	3·3	5·5	−40	77	·806	2·7	4	7·82	− 3·82	1·87	5·36	− 3·49	4·16	7·91	− 3·75	1·03	Berhampore.		
1		3	7	9	4	1	1	S 11° E	5·1	5·2			74	·821	4·4*	6	7·61	− 1·61	2·69	5·25	− 2·56	3·78	7·87	− 4·09	1·00	Rampur Boalia.		
	5	7	8	8	1	2		S 52° E	3·6	3·3			75	·815	3·5	5	5·61	− 0·61	2·46	4·08	− 1·62	3·75	6·00	− 2·25	1·21	Malda.		
													80	·801	2·3	6	9·42	− 3·42	2·49	8·08	− 5·59	6·32	11·59	− 5·27	0·70	Bogra.		
		22	6	2		1		S 76° E	4·1	4·8			78	·758	5·9	9	7·96	+ 1·04	6·90	7·46	− 0·56	7·34	10·41	− 3·07	2·52	Dinajpur	North Bengal.	12
1	5	16	3	4	2			S 81° E	3·0	3·1			83	·815	4·4	14	10·69	+ 3·31	8·20	9·83	− 1·63	8·72	14·44	− 5·72	1·48	Rangpur.		
3	7	7	9	4				S 84° E	2·1	2·6			81	·773	2·3	12	12·20	− 0·20	18·35	11·90	+ 6·45	19·64	17·51	+ 2·13	3·52	Jalpaiguri.		
1	3	12	8	2				S 76° E	2·1	2·2			84	·798	5·1	14			15·23	14·57	+ 0·66	23·07	21·55	+ 1·52	2·70	Cooch Behar		
6	6	7	7	1		1	2	N 67° E	4·9	7·6	3·4	+124	95	1·018	3·2	7	5·08	+ 1·92	3·03	4·49	− 1·46	3·13	6·32	− 3·19	0·72	Purnea	North Bihar.	17
	1			11	12	3		S 30° W	6·9				80	·950	4·0	12	7·92	+ 4·08	6·82	5·36	+ 1·46	12·45	9·08	+ 3·37	1·98	Balasore	Orissa.	14
		1	3	12	11	3	1	S 21° W	13·2	12·6	12·6	0	80	·992	5·1	6	4·24	+ 1·76	2·34	4·83	− 2·49	2·85	7·53	− 4·68	0·90	False Point.		
		1	2	5	15	3	1	S 37° W	4·0		5·1	−22	72	·880	4·3	5	5·31	− 0·31	3·13	4·41	− 1·28	5·40	6·97	− 1·57	1·11	Cuttack.		
	1		4	8	17		1	S 23° W	18·9	23·1			79	·975	3·6	8			6·19	3·21	+ 2·98	8·83	5·42	+ 3·41	2·79	Shortt's Island		
			1	1	25	1	1	S 45° W	15·0	14·8			82	·982	3·4	5	3·19	+ 1·81	4·59	3·02	+ 1·57	6·57	4·08	+ 2·49	2·75	Puri.		
																			1·32	1·66	−0·46					**V.—Gangetic Plain and Chota Nagpur.**		
1		1	4	14	6	4	1	S 15° W	9·1	8·1	8·8	−8	53	·587	2·3	5	4·20	+ 0·80	1·60	2·26	− 0·66	3·59	3·42	+ 0·17	0·49	Hazaribagh.	Chota Nagpur.	15
		1	4	9	12	3	2	S 25° W	6·1	7·1			59	·627	2·6	6	5·00	+ 1·00	1·95	2·89	− 0·94	5·98	4·91	+ 1·07	0·52	Ranchi.		
1	1	3	4	1	2	2	1	S 34° E	5·9	7·0			53	·609	0·7	1	2·32	− 1·32	0·61	1·15	− 0·54	1·59	2·09	− 0·50	0·33	Daltonganj.		
	1	2	1	3	1			S 37° E	1·3				66	·745	1·1	6			3·95			8·88			2·48	Purulia.		
1				1	5	6	5	W	2·3	2·0			69	·800	1·5	8	5·80	+ 2·20	4·18	3·86	+ 0·32	8·32	6·00	+ 2·32	1·40	Chaibassa.		
	14	4	4	3		5		N 72° E	7·3	6·6	3·9	+69	58	·740	2·0	2	2·11	− 0·11	1·61	1·13	+ 0·48	2·15	2·02	+ 0·13	1·29	Gaya	South Bihar.	16
1	4	14	3	3	4	2		S 68° E	6·3	7·3			51	·642	3·1	2	1·67	+ 0·33	1·54	0·98	+ 0·56	1·60	1·75	− 0·15	1·17	Dehri.		
	9	14	4		1	2	1	N 79° E	5·8	6·9	4·8	+44	67	·740	3·5	2	2·88	− 0·88	1·98	1·97	+ 0·01	1·98	2·61	− 0·63	1·12	Patna.		
	1	19	5	1		2	2	S 84° E	3·7	3·9			61	·715	1·3	2	2·53	− 0·53	1·08	1·63	− 0·55	1·08	2·26	− 1·18	0·96	Arrah.		
1	1	18	4	1		6		S 83° E	6·7	6·1			56	·677	2·5	1	2·03	− 1·03	0·40	0·91	− 0·51	0·44	1·39	− 0·95	0·35	Buxar.		
1	6	12	7	1	1	2		S 87° E	5·2	4·8			71	·787	2·7	5	4·26	+ 0·74	2·89	2·81	+ 0·08	3·30	4·11	− 0·81	1·69	Bhagalpur	North Bihar.	17
1	2	13	12			1	1	S 77° E	5·8		5·9	−2	68	·746	1·8	1	3·98	− 2·96	0·41	2·52	− 2·11	0·42	3·45	− 3·03	0·19	Darbhanga.		
	2	9	6					S 79° E	2·9	2·5			75	·830	0·8	2	3·42	− 1·42	1·01	2·35	− 1·34	1·01	3·23	− 2·22	0·76	Muzaffarpur		
2	9	19			1			N 72° E	5·6				72	·739	0·9	2	4·26	− 2·26	1·09	2·81	− 1·72	1·19	3·92	− 2·73	0·53	Motihari.		
	1	14	1	1	1	1		S 74° E	2·7	3·3			68	·783	2·9	2	2·19	− 0·19	0·74	1·45	− 0·71	0·74	2·04	− 1·30	0·36	Chapra.		
1	1	10	2	1	4	3		S 61° E	2·5	2·9	5·2	−44	52	·663	1·4	2	1·45	+ 0·55	0·63	0·72	− 0·09	0·63	1·08	− 0·45	0·33	Benares	N.-W. P., East.	18
1	6	9	1	1	2	7	2	N 50° E	6·2	7·1	6·2	+15	47	·620	1·6	1	1·18	− 0·18	0·17	0·39	− 0·22	0·18	0·82	− 0·64	0·17	Allahabad.		
5	9	11		1	1	1		N 59° E	2·5		3·9	−36	64	·692	2·4	2	2·64	− 0·64	1·72	1·37	+ 0·35	2·51	2·22	+ 0·29	0·87	Gorakhpur	N.-W. P. (East Submontane).	23
	2	16	1	4	1	6		S 70° E	3·2	3·5	4·3	−19	51	·637	2·1	1	1·91	− 0·91	0·52	1·10	− 0·58	0·69	1·49	− 0·80	0·38	Lucknow	South Oudh.	19
	1	20	1	3		3		S 81° E	4·7	4·4			60†	·790†	1·2	3			0·82	1·42	− 0·60	0·93	2·23	− 1·30	0·33	Bahraich	North Oudh.	20
	1	8	4	3	2	3	2	S 48° E	2·3				46	·598	0·8	0	1·10	− 1·10	0·23	0·47	− 0·24	0·33	0·87	− 0·54	0·09	Cawnpore	N.-W. Provinces (Central).	21
1		5	1	5		9	1	S 45° W	3·0	3·0			40	·516	4·5	0			0	0·66	−0·66	1·42	1·02	+ 0·40	0	Mainpuri.		

Table

Abstract of Observations taken at 8 A.M. at 217 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	VI.—Upper Sub-Himalayas				+·061								101·7	−0·3	76·4	+2·9	89·1	+1·3	25·4					42·8
24	N.-W. Provinces, (West Submontane).	Bareilly	569	29·176	+·071	29·704	29·318	14th	29·010	24th	·308	85·3	102·1	−0·5	78·5	+2·9	90·3	+1·2	23·6	110·0	28th	67·7	1st & 18th	42·3
		Dehra Dun	2,233	27·552	+·044	29·715	27·680	14th	27·395	31st	·285	79·1	95·2	?	69·9	0	82·6	?	25·3	103·5	25th & 31st.	63·5	3 days	40·0
		Roorkee	887	28·855	+·064	29·699	29·003	19th	28·680	31st	·323	85·8	102·0	−0·1	75·0	+1·1	88·5	+0·5	27·0	110·7	31st	64·8	1st	45·9
22	N.-W. P., West	Meerut	738	28·987	+·056	29·682	29·136	14th	28·816	31st	·320	86·0	103·5	?	77·8	+2·9	90·7	?	25·7	110·8	31st	70·3	18th	40·5
26	South-East Punjab.	Delhi	718	29·010	+·058	29·683	29·155	19th	28·874	31st	·281	87·8	103·0	−1·3	82·9	+3·7	93·0	+1·2	20·1	110·7	31st	72·1	18th	38·6
28	Central Punjab.	Lahore	702	29·018	+·073	29·685	29·177	19th	28·863	31st	·313	85·2	104·4	+1·6	75·5	+3·2	89·9	+2·5	28·9	114·1	31st	66·9	7th	47·2
27	South Punjab	Sirsa	662	29·039?	?	29·654?	29·176	20th	28·877	31st	·299	89·6	104·7	−1·5	80·1	+4·1	92·4	+1·3	24·6	114·8	13th	69·6	18th	45·2
		Patiala	818	28·924		29·702	29·090	28th	28·676	23rd	·414	86·4	102·4		77·4§		89·3§		25·0	110·2	31st	69·9	9th & 18th.	40·3
29	Punjab (Submontane).	Ludhiana	812	28·898	+·045	29·672	29·090	19th	28·717	31st	·373	85·4	103·2	−0·7	77·5	+3·7	90·4	+1·5	25·7	112·9	31st	70·1	1st	41·8
		Sialkot	830	28·892	+·069	29·683	29·056	19th	28·723	31st	·333	86·7	103·0	+0·6	76·9	+3·1	90·0	+1·9	26·1	111·8	25th & 31st.	69·1	8th & 9th.	42·7
		Umballa	892	28·830?	?	29·674?	28·996	19th	28·666	31st	·330	83·3	?102·7	?	?	?	?	?		110·9	31st			
31	North Punjab	Rawalpindi	1,676	28·081	+·070	29·720	28·241	19th	27·923	31st	·318	81·0	96·2	−1·0	69·1	+1·5	82·7	+0·3	27·1	106·0	3 days	60·0	7th	46·0
	VII.—Indus Valley and North-West Rajputana.				+·068								103·4	−1·0	78·0	+1·2	90·7	+0·1	25·4					44·6
31	North Punjab	Peshawar	1,110	28·666	+·069	29·758	28·810	19th	28·503	31st	·307	81·7	95·4	−2·4	69·6	+0·2	82·5	−1·1	25·8	106·0	31st	61·0	7th & 8th.	45·0
32	West Punjab	Khushab	612	29·114	?	29·691	29·291	20th	28·951	24th	·340	86·4	101·7	−2·8	76·9	−0·1	89·3	−1·5	24·8	109·9	6th & 31st.	63·2	7th	46·6
		Montgomery	558	29·154	+·070	29·671	29·321	20th	29·009	23rd	·312	90·0	104·9	−3·7	77·6	−0·4	91·3	−2·1	27·3	114·0	31st	59·5	7th	54·5
		D. I. Khan	594	29·158	+·059	29·695	29·331	8th	28·999	5th	·332	84·3	101·0	−1·2	74·1	+0·6	87·6	−0·3	26·9	111·2	31st	61·1	7th	50·1
		Mooltan	420	29·296	+·061	29·681	29·484	8th	29·128	6th	·356	86·5	106·1	+1·4	79·5	+3·6	92·8	+2·5	26·6	114·5	31st	62·0	7th	52·5
47	Sind	Jacobabad	186	29·519	+·056	29·663	29·691	20th	29·337	6th	·354	90·2	112·1	+1·7	80·4	+3·5	96·3	+2·6	31·7	122·0	31st	66·1	7th	55·9
		Hyderabad	96	29·660	+·075	29·708	29·792	20th	29·533	5th	·259	86·0	106·5	−0·3	78·0	−0·4	92·3	−0·4	28·5	114·2	25th	73·0	9th	41·2
		Kurrachee	30	29·788	+·083	29·769	29·899	20th	29·678	5th	·221	84·6	93·5	−0·3	80·1	+1·3	86·8	+0·5	13·4	100·4	8th	75·2	9th	25·2
51	West Rajputana	Bikaner	771	28·958	?	29·685	29·095	20th	28·841	25th	·254	89·3	105·3	−1·2	82·7	+2·9	94·0	+0·9	22·6	112·9	31st	72·0	18th	40·9
		Pachpadra	380	29·400		29·734	29·498	15th	29·307	5th	·191	85·9	106·3		78·9		92·6		27·4	112·4	31st	72·4	15th	40·0
		Jodhpur	782	28·985		29·743	29·092	15th	28·906	24th	·186	85·0	104·3		80·2		92·3		24·1	111·2	30th	72·8	15th	38·4
	VIII.—East Rajputana, Central India and Gujarat.				+·073								102·4	−0·7	79·3	+1·3	90·9	+0·3	23·1					37·8
50	East Rajputana	Jaipur	1,431	28·364	+·073	29·741	28·494	20th	28·264	25th	·230	85·9	103·1	−2·4	77·8	?	90·5	?	25·3	110·2	3rd	67·1	19th	43·1
		Kotah	819	28·952			29·071	19th	28·861	27th	·210	92·1	106·8		85·9		96·4		20·9	112·1	29th & 31st.	76·1	14th	36·0
		Sambhar	1,254	28·531	+·082	29·733	28·665	20th	28·429	25th	·236	87·1	103·3	−1·0	81·0	+2·9	92·2	+1·0	22·3	109·5	3 days	67·5	18th	42·0
		Ajmer	1,611	28·192	+·069	29·746	28·308	19th	28·101	5th	·207	86·4	102·8	−0·4	81·6	+3·9	92·2	+1·8	21·2	108·4	29th & 30th.	70·6	18th	37·8
		Udaipur	1,925	27·913		29·763	28·006	20th	27·832	24th	·174	86·9	99·9		78·5		89·2		21·4	106·0	3rd	61·8	15th.	44·2
		Deesa	466	29·371	+·082	29·791	29·446	11th & 15th.	29·284	26th	·162	84·7	105·2	−1·0	77·9	+0·4	91·5	−0·3	27·3	110·1	3rd & 26th.	72·0	4th	28·1
36	Kathiawar and Cutch.	Bhuj	395	29·442	+·087	29·789	29·533	15th	29·342	17th	·191	84·4	100·9	−0·6	76·3	−0·4	88·6	−0·5	24·6	106·8	1st & 2nd.	72·4	2nd	34·4
		Jamnagar	61	29·797		29·804	29·879	10th & 15th.	29·700	17th	·179	85·1	96·4		76·4		86·5		20·0	103·1	18th	70·2	1st	32·9
		Rajkot	429	29·428	+·082	29·809	29·513	15th	29·356	17th	·157	83·4	104·4	−1·0	74·9	−0·3	89·7	−0·7	29·5	107·9	29th	69·8	8th & 11th.	28·1
		Veraval		29·862	+·051	29·822	29·942	20th	29·805	24th	·137	81·9	86·7	−0·2	77·6	−0·7	82·2	−0·5	9·1	98·1	1st	70·8	1st	27·3
		Bhavnagar Para.	35	29·835	?	29·815	29·922	11th	29·772	24th & 28th.	·150	84·9	105·4	?	76·5*	?	91·2*	?	28·9	111·7	4th	66·8	12th	44·9
69	Central India	Nowgong	757	29·005	+·067	29·706	29·156	14th	28·904	31st	·252	89·4	105·7	−1·6	80·8	+1·7	93·3	+0·1	24·9	111·5	31st	72·0	18th	39·5
		Indore	1,823	28·033	+·084	29·777	28·124	14th	27·958	27th & 28th.	·166	86·7	103·1	+0·7	77·2	+1·8	90·2	+1·3	25·9	107·3	4th	69·1	17th	38·2
		Neemuch	1,630	28·207	+·071	29·773	28·300	20th	28·127	27th	·173	86·8	101·7	−2·2	78·3	+1·9	90·0	−0·2	23·4	108·1	3rd & 30th.	70·0	17th	38·1

* Mean of 26 days. § Mean of 2 days.

I—*continued.*

in India, Burma, etc., in May 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 31st May 1900.	Normal rainfall for period from 1st March to 31st May.	Variation from normal of period, 1st March to 31st May.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				0·71	1·07	−0·42					VI.—Upper Sub-Himalayas		
7	1	6	8	3	8		2	4	N 59° E	3·0	2·9	5·2	−44	45	·527	2·4	1	2·27	−1·27	0·47	0·84	−0·37	1·73	1·95	− 0·22	0·42	Bareilly	N.-W. Provinces (West Submontane).	24
12	2	2	3	1		4	5	2	N 68° W	2·5		2·5	0	43	·421	1·7	2	4·09	−2·09	0·71	1·95	−1·24	2·40	3·55	− 1·15	0·33	Dehra Dun.		
16			1	13	1				S 45° E	4·3		3·7	+16	37	·437	1·5	1	2·00	−1·00	1·16	0·86	+0·30	2·45	2·00	+ 0·45	1·16	Roorkee.		
8	1		7	7		2	5	1	S 46° E	2·1	2·1	2·6	−19	44	·528	4·6	1	1·64	−0·64	0·17	0·69	−0·52	1·39	1·70	− 0·31	0·10	Meerut	N.-W. P., West.	22
6			3	3	3		9	7	S 89° W	3·8	3·5	4·5	−22	36	·444	1·4	2	1·64	−0·36	0·41	0·78	−0·37	2·00	1·58	+ 0·42	0·25	Delhi	South-East Punjab,	26
13	3	1	5	2			5	2	N 10° E	2·7		3·3	−18	42	·500	3·0	1	2·00	−1·00	0·46	1·03	−0·57	1·03	2·22	− 1·19	0·16	Lahore	Central Punjab,	28
		8	1	7	1	4	2	8	N 22° E	5·1	6·0	4·8	+25	47	·592	0·8	1	1·82	−0·82	0·53	0·81	−0·28	1·72	1·49	+ 0·23	0·53	Sirsa	South Punjab.	27
10	3	2	4	8	2		1	1	S 72° E	4·3				43	·538	1·0	2			1·40			2·26			0·75	Patiala.		
9	4	4	2	3	4		5		N 70° E	3·5	3·1	2·2	+41	39	·474	2·7	1	1·91	−0·91	0·28	0·78	−0·50	2·69	2·62	+ 0·07	0·18	Ludhiana	Punjab (Submontane),	29
6	7	7	6	3		1		1	N 50° E	3·1		2·5	+24	46	·560	1·5	2	2·73	−0·73	0·53	1·23	−0·70	1·87	3·32	− 1·45	0·19	Sialkot.		
2			7	9	1		1	11	N 85° E	3·0				46	·512	1·7				0·16	0·97	−0·81	1·30	2·23	− 0·93	0·14	Umballa.		
27			2			1	1		S 23° E	4·1	3·8	2·8	+36	47	·476	3·1	7	3·00	+4·00	2·25	1·80	+0·45	6·91	5·51	+ 1·40	0·63	Rawalpindi.	North Punjab.	31
																				0·72	0·47	+0·25					VII.—Indus Valley and North-West Rajputana.		
28	1						2		N 63° W	1·7	1·9	4·8	−60	52	·545	3·4	4	2·09	+1·91	2·36	0·75	+ 1·61	5·25	4·29	+ 0·96	1·49	Peshawar	North Punjab.	31
3	2	14	5	2	1	3	1		N 62° E	8·0	9·3			38	·461	1·6	4	1·00	+3·00	1·73	0·41	+ 1·32	3·30	1·57	+ 1·73	0·60	Khushab	West Punjab.	32
4	1	4	5	2	7	2	3	3	S 37° E	8·6	7·4			30	·400	1·1	1	1·10	−0·10	0·20	0·47	− 0·27	0·42	1·22	− 0·80	0·12	Montgomery.		
14	5	8					2	2	N 9° E	2·6	2·8	2·3	+22	57	·672	2·4	1	0·82	+0·18	1·61	0·40	+ 1·21	2·85	1·80	+ 1·05	1·54	D. I. Khan.		
11	3	3	1	3	2	4	3	1	S 48° W	2·3	2·8	2·9	− 3	44	·555	0·5	2	0·82	+1·18	0·44	0·42	+ 0·02	0·93	0·87	+ 0·06	0·23	Mooltan.		
4	1	2	8	6	7		2	1	S 53° E	5·4	5·6	4·7	+21	42	·595	1·0	0	0·45	−0·45	0·05	0·10	− 0·05	0·17	0·44	− 0·27	0·05	Jacobabad	Sind,	47
3					3	23	1	1	S 44° W	12·1	12·6	12·7	− 1	53	·655	0·5	0	0·45	−0·45	0	0·25	− 0·25	0·03	0·43	− 0·40	0	Hyderabad.		
						8	21	2	S 82° W	13·1	16·4	17·5	− 6	75	·874	1·6	0	0	0	0	0	0	0	0·56	− 0·56	0	Kurrachee.		
1	2	3	1	2	4	8	8	2	S 62° W	?		6·5		48	·647	1·3	1			0·17	1·08	− 0·91	0·17	1·45	− 1·28	0·11	Bikaner	West Rajputana	51
1			1	1	11	15	1	1	S 27° W	11·5	13·2	8·8	+50	54	·659	3·2	3			0·74	0·83	−0·09	1·01	0·91	+ 0·10	0·30	Pachpadra.		
1		2			5	18	4	1	S 47° W	15·3†	13·8†			44	·528	2·0	2			0·62	0·47	+ 0·15	1·03	0·55	+ 0·48	0·36	Jodhpur.		
																				0·60	0·45	+0·13					VIII.—East Rajputana, Central India and Gujarat.		
4	2	2	1			4	9	9	N 66° W	4·8		6·9	−30	43	·514	1·9	5	1·20	+3·80	2·91	0·45	+ 2·46	3·21	0·93	+ 2·28	1·09	Jaipur	East Rajputana.	50
3	2	2		2		6	8	8	N 77° W	6·6	7·8			29	·409	0·6	2			0·85	1·11	− 0·26	3·25	1·20	+ 2·05	0·50	Kotah.		
5	3	1	2	2		1	13	4	N 70° W	8·3		9·9	−16	41	·505	2·4	4	1·27	+2·73	1·89	0·80	+ 1·09	2·39	1·24	+ 1·15	1·12	Sambhar.		
3		1		1	2	11	12	1	S 65° W	9·0		7·1	+27	48	·606	3·4	0	2·09	−2·09	0·11	0·75	− 0·64	0·81	0·98	− 0·17	0·06	Ajmer.		
10	1				1	3	9	7	N 80° W	4·8	4·9			48	·596	0·2	3			1·78			1·86			0·89	Udaipur.		
	2	1			2	10	13	3	S 79° W	13·2††		13·4	− 1	56	·653	1·3	0	0·55	−0·55	0·05	0·25	− 0·20	0·40	0·31	+ 0·09	0·05	Deesa.		
	1					3	22	5	N 84° W	15·9		15·4	+ 3	73	·861	1·8	0			0	0·13	− 0·13	0·10	0·40	− 0·30	0	Bhuj	Kathiawar and Cutch.	48
				1	3	14	12	1	S 62° W	21·6	23·1			68	·820	1·5	0			0			0			0	Jamnagar.		
	3				1	3	21	3	N 85° W	14·6	14·5	14·6	− 1	73	·838	1·8	0	0·36	−0·36	0·02	0·25	− 0·23	0·02	0·28	− 0·26	0·02	Rajkot.		
1	1				2	2	15	10	N 79° W	7·7	9·1	9·5	− 4	82	·886	2·0	0			0·05	0·02	+ 0·03	0·05	0·02	+ 0·03	0·05	Veraval.		
		1			3	12	4	11	S 81° W	11·5‡	11·8‡			59	·712	1·0	1			1·33	0·12	+ 1·21	1·33	0·22	+ 1·11	1·33	Bhavnagar Para.		
5	2		4	1	3	2	13	1	S 88° W	3·7	3·7	3·4	+ 9	36	·494	2·7	2	1·09	+0·91	0·50	0·42	+ 0·08	0·53	0·75	− 0·22	0·31	Nowgong	Central India.	49
1	2	1					19	8	N 71° W	8·0		6·1	+31	49	·623	2·0	1	1·36	−0·36	0·20	0·75	− 0·55	0·30	0·83	− 0·53	0·20	Indore.		
2		3				11	13	2	S 78° W	10·7	9·6	12·4	−23	58	·737	0·5	0	1·18	−1·18	0·06	0·59	− 0·53	0·33	0·76	− 0·43	0·06	Neemuch.		

† Mean of 29 days. † Mean of 30 days. ‡ Mean of 27 days.

Table

Abstract of Observations taken at 8 A.M. at 217 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 actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 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.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
45	Gujarat	Surat	39	29·848	+·064	29·829	29·926	20th	29·777	27th	·149	86·4	99·9	+1·7	78·2	+0·6	89·1	+1·2	21·7	109·1	2nd	72·5	11th	36·6
		Ahmedabad*	164	29·719	+·079	29·829?	29·798	11th & 20th.	29·643	27th	·155	86·4	106·8	−0·4	79·5	+0·1	93·2	−0·2	27·3	112·8	2nd	74·1	14th	38·7
22	N.-W. P., West	Agra	555	29·188	+·063	29·695	29·387	19th	29·052	31st	·335	89·0	104·3	−2·3	82·6	+1·9	93·5	−0·2	21·7	111·0	30th	73·9	18th	37·1
21	N.-W.P., Central	Jhansi	858	28·917	+·067	29·713	29·057	14th	29·810	31st	·247	92·8	106·1	−1·3	85·6	+3·3	95·9	+1·0	20·5	111·3	20th & 30th.	77·1	15th & 18th.	34·2
	IX.—Deccan				+·064								105·9	+1·7	79·2	+1·4	92·6	+1·6	26·7					38·0
38	Bombay (Deccan)	Belgaum	2,539	27·371	+·058	29·825	27·440	10th	27·303	27th	·137	77·1	96·3	+5·2	67·6	−0·3	82·0	+1·5	28·7	101·8	4th	63·9	16th	37·3
		Sholapur	1,590	28·281	+·058	29·798	28·353	13th	28·204	27th	·149	86·2	106·8	+2·5	78·2	+2·2	92·5	+2·4	28·6	110·2	30th	74·5	3 days	35·7
		Poona	1,840	28·063	+·063	29·839	28·123	15th	27·985	27th	·138	81·0	102·7	+4·1	70·8	−1·1	86·8	+1·5	31·9	107·6	3rd & 4th.	65·4	11th	42·2
		Bijapur	1,946	27·959	+·060	29·821	28·022	14th	27·876	28th	·146	84·3	103·5	+3·2	75·3	+0·6	89·4	+1·9	28·2	108·2	30th	70·8	13th	37·4
40	Khandesh	Malegaon	1,430	28·434	+·065	29·796	28·516	14th	28·349	27th	·167	87·8	105·9	+2·2	74·8	+0·1	90·4	+1·2	31·1	110·3	30th	66·3	9th	44·0
		Ahmednagar	2,152	27·763	+·069	29·824	27·834	14th	27·677	27th	·157	84·8	103·2	+3·7	71·2	−0·5	87·2	+1·6	32·0	105·9	3 days	65·4	1st	40·5
41	Berar	Akola	930	28·897	+·067	29·757	28·979	14th	28·800	27th	·179	91·2	109·3	+2·2	81·3	+0·7	95·3	+1·5	28·0	114·5	30th	69·3	1st	45·2
		Amraoti	1,215	28·608	+·075	29·750	28·697	14th	28·518	26th	·179	91·9	108·9	+1·7	80·4	+1·2	94·7	+1·5	28·5	113·0	30th	73·3	1st	39·7
42	Central Provinces (West).	Khandwa	1,044	28·791	+·077	29·777	28·879	14th	28·703	28th	·176	89·3	106·7	+0·6	82·5	+2·3	94·6	+1·5	24·2	112·2	3rd	76·6	1st	35·6
		Hoshangabad	1,006	28·812	+·078	29·757	28·924	14th	28·724	28th	·200	92·0	108·9	+1·4	81·7	+2·0	95·3	+1·7	27·2	112·5	30th	75·2	1st	37·3
		Nagpur	1,025	28·767	+·066	29·723	28·848	10th & 14th.	28·662	26th	·186	93·4	110·3	+1·6	83·5	+2·4	96·9	+2·0	26·8	114·2	31st	75·1	1st & 17th.	39·1
43	Central Provinces (Central).	Chanda	634	29·181	+·061	29·745	29·254	19th	29·076	26th	·178	93·0	110·8	+1·6	83·8	+2·3	97·4	+2·0	27·0	114·7	30th	76·3	1st & 2nd	33·4
		Seoni*	2,033	27·790	+·066	29·715	27·878	14th	27·691	26th	·187	89·7	104·3	+1·1	77·8	+1·2	91·1	+1·2	26·5	109·9	29th	73·5	17th	36·4
		Jubbulpore	1,327	28·449	?	29·708	28·549	14th & 15th.	28·347	26th	·202	89·5	106·0	+1·1	79·8	+1·4	92·9	+1·3	26·2	110·5	29th & 31st.	73·1	3 days	37·4
		Saugor	1,807	28·004	+·066	29·724	28·124	14th	27·908	26th	·216	89·8	104·2	−0·5	80·4	+2·8	92·3	+1·2	23·8	108·5	3 days	71·1	18th	37·4
4	Central India	Sutna	1,040	28·718	+·066	29·700	28·874	15th	28·612	31st	·252	90·5	104·2	−0·5	80·9	+2·8	92·6	+1·2	23·3	110·6	31st	71·6	2nd	39·0
44	Central Provinces (East).	Raipur	970	28·816	+·066	29·717	28·915	15th	28·689	26th	·226	90·8	105·8	−0·7	81·8	+0·7	93·8	0	24·0	111·0	25th	70·6	17th	40·4
		Sambalpur	486	29·297	?	29·727	29·403	20th	29·161	25th†	·242	87·9	105·6	−0·8	81·4	+0·5	93·5	−0·2	24·2	113·1	26th	74·2	17th	38·9
29	Hyderabad (North).	Indur										92·0	107·5		82·2		94·9		25·3	110·6	27th & 31st.	77·2	2nd	33·4
53	Hyderabad (South).	Gulbarga	1,502	28·371		29·796	28·444	13th	28·266	27th	·178	88·3	106·4		79·8		93·1		26·6	110·2	29th	75·2	12th	35·0
		Raichur	1,309	28·539?	+·036?	29·776?	28·610	20th	28·459	27th	·151	87·3	105·4	+1·9	80·3	+0·6	92·9	+1·3	25·1	109·0	5th	71·6	24th	37·4
		Hyderabad (Deccan).	1,690	28·158	+·046	29·761	28·250	20th	28·069	28th	·181	88·8	105·6	+2·7	82·0	+4·1	93·8	+3·4	23·6	109·9	27th	76·7	1st	33·2
		Secunderabad	1,787	28·070	+·036	29·770	28·159	20th	27·979	28th	·180	87·5	106·6	+3·7	81·0	+3·1	93·8	+3·4	25·6	110·8	26th	75·9	1st	34·9
		Hanumkonda		28·939			29·057	20th	28·830	26th	·227	87·9	106·2		82·3		94·3		23·9	112·2	27th	77·3	1st & 19th.	34·9
	X.—West Coast				+·061								89·9	+0·3	80·2	+1·2	85·1	+0·8	9·7					15·3
37	Konkan	Bombay	37	29·882	+·069	29·858	29·955	11th	29·756	27th	·159	84·1	90·8	+0·8	80·7	+0·3	85·8	+0·6	10·1	92·5	3rd	78·0	11th	14·5
		Ratnagiri	110	29·795	+·067	29·843	29·850	14th	29·712	27th	·138	84·8	90·6	−0·2	79·4	+0·4	85·1	+0·1	11·2	91·4	4 days	76·9	3 days	14·5
		Mormugao	60	29·844	?	29·839	29·910	10th	29·770	27th	·140	84·2	88·4	−1·4	81·0	−0·1	84·7	−0·8	7·4	91·5	3rd	78·9	9th	12·6
		Goa	199	29·714	+·074	29·848	29·780	10th	29·647	27th	·133	84·4	89·4	−0·7	81·3	+1·1	85·4	+0·2	8·1	90·5	5th	80·0	7 days	10·5
		Karwar	44	29·878	+·067	29·853	29·944	10th	29·810	27th	·134	82·9	89·6	−0·2	80·1	+0·9	84·9	+0·4	9·5	90·8	2nd	76·5	9th	14·3
38	Malabar	Cochin	11	29·918	+·050	29·856	29·985	10th	29·857	27th	·128	83·3	91·0	+1·8	79·5	+2·3	85·3	+2·1	11·5	94·0	29th	74·7	2nd & 29th.	19·3
		Calicut	27	29·893	+·047	29·849	29·961	10th	29·816	27th	·145	84·2	91·2	+1·4	80·1	+2·8	85·7	+2·1	11·1	92·8	21st & 22nd.	74·0	2nd	18·8
		Mangalore	65	29·864	+·059	29·861	29·930	11th	29·798	27th	·132	84·8	90·4	+0·6	80·5	+2·1	85·5	+1·4	9·9	91·8	4 days	75·9	25th	15·9
		Trivandrum	198	29·711	+·058	29·839	29·790	10th	29·636	27th	·154	82·3	87·8	+1·5	79·6	?	83·7	?	8·2	90·0	1st & 12th.	73·0	2nd	17·0

* Mean of 30 days. † Mean of 24 days.

I—*continued.*

in India, Burma, etc., in May, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 31st May 1900.	Normal rainfall for period, 1st March to 31st May.	Variation from normal of period, 1st March to 31st May.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
1	3	3				15	6	3	S 79° W	7·4	12·1	12·7	− 5	62	·778	2·1	1	0·45	+0·55	0·10	0·19	− 0·09	0·10	0·20	− 0·10	0·10	Surat	Gujarat.	45
	3	1			5	9	1	11	N 90° W	5·5				60	·752	1·9	0			0·11	0·03	+0·08	0·58	0·10	+ 0·48	0·08	Ahmedabad*		
2		4		6		15		4	S 34° W	5·9	5·5	5·9	− 7	43	·577	1·3	3	1·91	+1·09	0·49	0·60	− 0·11	1·12	1·05	+ 0·07	0·19	Agra	N.-W. P., West	22
5	4		1	1	10	3	7		S 40° W	5·2		4·8	+ 8	30	·442	0·4	2	1·36	+0·64	0·40	0·49	− 0·09	0·59	0·97	− 0·38	0·30	Jhansi	N.-W.P. Central	21
																				0·32	1·00	−0·67					IX.—Deccan.		
4	3				2	6	11	5	S 88° W	15·2††		18·1	−16	62	·572	2·6	4	4·36	− 0·36	1·38	2·62	− 1·24	3·03	4·69	− 1·66	0·48	Belgaum	Bombay (Deccan).	38
	2	2		2		1	2	22	N 42° W	12·7	9·1	10·0	− 9	35	·435	1·7	0	2·18	− 2·18	0·15	1·15	− 1·00	1·22	2·06	− 0·84	0·09	Sholapur.		
						3	21	7	N 84° W	15·9	18·0	14·2	+ 27	48	·506	0·9	0	2·00	− 2·00	0	1·65	− 1·65	0·01	2·24	− 2·23	0	Poona.		
						4	16	11	N 80° W	7·5	7·4			52	·611	0·8	2	3·10	− 1·10	0·40	1·05	− 0·65	1·61	1·93	− 0·32	0·25	Bijapur.		
	2					1	18	10	N 72° W	10·3	11·8	10·4	+ 13	37	·476	0	0	1·27	− 1·27	0	0·95	− 0·95	0·05	1·08	− 1·03	0	Malegaon	Khandesh.	40
	13	2	1				3	12	N 21° W	11·6	14·2			51	·600	0·4	0			0	0·86	− 0·86	0·03	1·43	− 1·40	0	Ahmednagar.		
1	1						11	18	N 60° W	11·4	10·8	8.6	+ 26	32	·464	0·5	0	0·91	− 0·91	0·03	0·48	− 0·45	0·05	1·19	− 1·14	0·03	Akola	Berar.	41
	2	2		1	1	5	12	8	N 79° W	9·7		6·0	+ 62	26	·398	0·5	0	1·73	− 1·73	0	0·75	− 0·75	0·15	1·40	− 1·25	0	Amraoti.		
1	1						14	15	N 64° W	10·7		9·1	+ 18	37	·496	0·5	0	1·09	− 1·09	0·04	0·45	− 0·41	0·04	0·75	− 0·71	0·04	Khandwa	Central Provinces (West).	42
		1	1	2		13		14	W	5·1	5·2	3·8	+ 27	46	·684	0	0	1·18	−1·18	0	0·73	− 0·73	0·04	1·12	− 1·08	0	Hoshangabad.		
12	6	1				1	3	8	N 37° W	9·5		9·5	0	24	·368	2·8	1	2·09	− 1·09	0·14	0·80	− 0·66	0·26	1·75	− 1·49	0·14	Nagpur.		
6	1	1	4	2	3	3	9	2	S 62° W	3·5		4·9	− 29	38	·585	2·0	1			0·37	0·89	− 0·52	1·00	2·76	− 1·76	0·37	Chanda	Central Provinces (Central)	43
	6	2	1	5	2	1	2	11	N 27° W	3·2		4·6	− 30	27	·373	0·7	1	2·36	− 1·36	0·34	0·76	− 0·42	0·77	1·81	− 1·04	0·23	Seoni.*		
	1	1	1	3	3	9	10	3	S 62° W	4·1		4·5	− 9	28	·397	0·9	1	1·45	−0·45	0·10	0·71	− 0·61	0·71	1·40	− 0·69	0·10	Jubbulpore.		
	2	1	3	1	4	2	15	3	S 85° W	3·1	3·5	4·4	− 20	46	·647	1·3	0	1·27	− 1·27	0·11	0·69	− 0·58	0·21	1·05	− 0·84	0·05	Saugor.		
1	4	2	1	1	4	4	5	9	N 68° W	5·8	6·2	8·1	− 23	33	·452	2·1	3	1·64	+ 1·36	1·38	0·39	+ 0·99	1·40	1·01	+ 0·39	0·60	Sutna	Central India	49
4	3	3	1	3	1	12	3	1	S 50° W	7·7	7·1	7·4	− 4	37	·520	0·3	3	2·91	+ 0·09	0·89	1·04	− 0·15	1·58	2·32	− 0·74	0·39	Raipur	Central Provinces (East).	44
	3	3	6	8	6	3	1	1	S 51° E	5·2	5·1	3·0	+ 70	52	·673	4·2	4			1·14	2·05	− 0·91	2·20	3·76	− 1·56	0·52	Sambalpur.		
4	5	1				2	6	13	N 49° W	11·7	11·2			52	·788	1·5	0			0	0·33	− 0·33	0·24	0·91	− 0·67	0	Indur.	Hyderabad (North).	39
2	6	9		1		2	3	8	N 11° W	11·3	10·8			48	·642	1·4	2			0·27	1·39	− 1·12	1·71	2·31	− 0·60	0·13	Gulbarga	Hyderabad (South).	53
3	3	1				8	5	11	N 69° W	10·6	10·4			51	·696	1·9	1			0·54	1·05	− 0·51	1·28	1·99	− 0·71	0·54	Raichur.		
6	7	2		3		1	3	9	N 29° W	5·9	5·7			40	·534	2·2	0			0·15	1·15	− 1·00	2·58	2·57	+ 0·01	0·09	Hyderabad (Deccan).		
1				8		2	6	14	N 77° W	5·9		7·4	− 20	46	·597	1·8	1			0·15	1·15	− 1·00	1·65	2·57	− 0·92	0·15	Secunderabad.		
6	1		1	17	5			1	S 39° E	10·7	9·1			55	·714	2·5	1			0·13			0·89			0·11	Hanumkonda.		
																				1·40	5·59	−4·19					X.—West Coast.		
	4	3			2	3	6	13	N 54° W	9·0		9·9	− 9	74	·870	3·4	0	1·00	−1·00	0	0·94	− 0·94	0	0·98	− 0·98	0	Bombay	Konkan.	37
5	8	1						17	N 29° W	7·1	7·0	11·2	− 38	68	·814	1·8	0	1·64	−1·64	0	1·89	−1·89	1·25	1·97	− 0·72	0	Ratnagiri.		
3	15					1		12	N 21° W	10·5				76	·893	3·2	0			0	2·00	−2·00	0·01	2·29	−2·28	0	Mormugao.		
	12	1	1		1	1	4	11	N 14° E	9·3†				74	·869	5·1	0			0	2·81	−2·81	0	2·88	− 2·88	0	Goa.		
	17	1		1		1		11	N 16° W	7·4				75	·834	3·8	0	904·	−4·09	0	3·85	−3·85	0	4·26	− 4·26	0	Karwar.		
4	14	8			1	1	2	1	N 7° E	6·6				82	·935	7·3	7	13·45	− 6·45	4·12	13·30	− 9·18	18·91	20·11	−1·20	1·03	Cochin	Malabar.	33
8	4			1	1			17	N 38° W	6·8**	8·6**			77	·891	4·5	5	9·00	− 4·00	5·16	8·05	− 2·89	11·18	11·74	− 0·56	1·63	Calicut.		
18		3	1	1				8	N 13° W	3·4		4·6	−26	72	·866	5·5	2	6·80	− 4·80	0·45	7·67	− 7·22	0·72	8·86	− 8·14	0·21	Mangalore.		
3	16					1		11	N 21° W	6·6				80	·836	5·6	6			2·88	9·80	− 6·92	5·70	15·95	−10·25	1·08	Trivandrum.		

** Mean of 29 days.

†† Mean of 25 days

Table

Abstract of Observations taken at 8 A.M. at 217 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	XI.—South India				+·052								98·6	+0·9	78·6	+1·0	88·6	+0·9	20·1					32·2
57	Madras (South)	Pamban	37	29·862		29·825	29·934	15th	29·779	27th	·155	85·3	90·5		80·7		85·7		9·8	91·8	4 days	76·7	1st & 29th,	15·1
		Tinnevelly	168	29·723	+·044	29·819	29·791	20th	29·639	27th	·152	87·4	101·3	+0·4	80·1	−0·6	90·7	−0·1	21·2	106·6	27th	73·9	2nd	32·7
		Madura	447	29·433	+·046	29·814	29·508	20th	29·345	27th	·163	85·5	99·5	−0·6	78·5	+1·7	89·0	+0·6	21·0	103·5	8th	73·0	28th	30·5
		Periya Kulam		28·955			29·022	20th	28·902	27th	·120	83·2	98·7		73·5		86·1		25·2	103·9	8th	69·5	27th & 30th,	34·4
34	Madras (South Central).	Salem	940	28·964	+·038	29·835	29·041	20th	28·885	24th	·156	85·1	102·5	+3·7	78·7	+3·2	90·6	+3·5	23·8	108·0	8th	73·6	29th	34·4
		Coimbatore	1,348	28·551	+·051	29·837	28·623	10th	28·479	27th	·144	81·4	95·7	+0·9	75·3	+1·8	85·5	+1·4	20·4	99·4	15th	67·8	19th	31·6
35	Coorg	Mercara	3,781	26·236	+·049		26·310	11th	26·174	27th	·136	70·7	83·6	+2·6	66·0	+1·5	74·8	+2·1	17·6	89·0	10th	62·2	21st	26·8
36	Mysore	Chitaldroog	2,405	27·520	+·042	29·829	27·596	13th	27·448	28th	·148	79·3	97·5	+3·6	73·0	+2·1	85·3	+2·9	24·5	100·6	9th	67·9	24th	32·7
		Bangalore	3,021	26·941	+·053	29·827	27·013	13th	26·873	27th	·140	78·0	95·4	+4·2	71·6	+2·5	83·5	+3·4	23·8	99·8	9th	63·3	31st	36·5
		Hassan	3,091	26·886		29·862	26·953	13th	26·828	27th	·125	76·3	92·2		67·7		80·0		24·5	96·2	10th	63·8	21st	32·4
		Mysore	2,518	27·439	+·044	29·857	27·510	11th	27·378	26th	·132	78·4	96·2	+3·8	71·5	+1·8	83·9	+2·8	24·7	100·1	8th & 9th,	67·0	20th	33·1
56	Madras (East Coast, South).	Negapatam	31	29·849	+·053	29·808	29·933	10th	29·765	26th	·168	86·7	98·3	?	81·6	+1·7	90·0	?	16·7	104·0	25th	75·9	29th & 30th.	28·1
		Cuddalore	12	29·849	+·053	29·790	29·947	20th	29·760	26th	·187	86·7	97·5	−1·5	80·3	−0·1	88·9	−0·8	17·2	104·3	7th & 8th,	73·5	29th	30·8
		Trichinopoly	255	29·622	+·042	29·808	29·694	20th	29·547	26th	·147	85·7	102·0	+0·9	79·9	+1·7	91·0	+1·3	22·1	106·7	26th & 27th,	69·9	29th	36·8
		Madras	22	29·835	+·049	29·787	29·944	20th	29·749	26th	·195	87·7	96·0	−1·8	82·0	+1·2	89·0	−0·3	14·0	103·5	7th	78·5	14th	25·0
		Vellore	707	29·168		29·808	29·258	10th	29·096	26th	·162	86·4	103·1		81·5*		9·25*		21·6	110·8	8th	69·2	13th	41·6
55	Madras (East Coast, Central).	Nellore	71	29·760	+·058	29·764	29·869	20th	29·675	26th	·194	89·6	105·2	−1·0	81·8	−0·3	93·5	−0·7	23·4	112·8	27th	78·1	28th	34·7
		Masulipatam	15	29·827	+·071	29·776	29·937	20th	29·724	26th	·213	88·1	96·6	−2·6	81·5	+0·3	89·1	−1·2	15·1	105·2	6th	74·1	11th & 18th,	31·1
54	Madras (Central)	Cuddapah	433	29·409	+·031	29·772	29·488	20th	29·347	17th	·141	91·8	108·1	+2·9	84·4	+1·1	96·3	+2·0	23·7	114·3	8th & 9th,	71·1	29th	43·2
		Kurnool	924	28·925	+·036	29·777	29·001	13th	28·856	27th	·145	88·6	107·3	+3·0	82·2	+1·8	94·8	+2·4	25·1	111·3	9th	74·5	24th	36·8
		Bellary	1,475	28·405	+·060	29·810	28·492	13th	28·328	27th	·164	85·3	103·7	+1·3	79·5	+2·3	91·6	+1·8	24·2	107·7	10th & 11th,	70·7	24th	37·0
52	Madras (East Coast, North).	Cocanada	26	29·809	+·071	29·770	29·912	20th	29·727	27th	·185	87·1	98·3	−2·4	81·3	−1·6	89·9	−2·0	17·0	104·1	25th	73·5	18th	30·6
		Waltair (Vizag.)	226	29·601	+·067	29·766	29·701	20th	29·509	27th	·192	85·9	91·8	0	80·6	−0·5	86·2	−0·3	11·2	101·4	25th	72·4	27th	29·0
		Gopalpur	21	29·790	+·087	29·749	29·901	10th	29·666	25th	·235	84·9	90·8	+1·1	79·6	−1·0	85·2	+0·1	11·2	94·8	12th	72·1	10th	22·7
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·707			25·850	15th	25·540	6th	·310	80·5	94·5		59·5		77·0		35·0	103·0	30th & 31st,	47·0	8th	56·0
		Pishin											85·6		52·3		68·9		33·3	93·0	30th	42·0	8th	51·0
		Quetta	5,502	24·629	+·052		24·715	15th	24·535	17th	·180	67·9	82·7	−0·2	51·9	−0·1	67·3	−0·2	30·8	88·6	4th & 30th,	41·4	7th	47·2
		Kalat										64·1	83·1		45·5		64·4		37·6	90·7	2nd	33·2	7th & 8th,	57·5
		Chaman	4,311	25·681	+·062		25·780	14th	25·581	4th	·199	77·4	91·1	−2·7	64·5	−1·1	77·8	−1·9	26·6	99·2	30th	51·1	8th	48·1
30	Punjab	Leh	11,503	19·784	+·066		19·892	1st	19·655	17th	·237	49·4	64·6	+0·5	36·7	+0·5	50·7	+0·5	27·9	78·1	26th	30·5	10th	47·6
		Srinagar	5,204	24·906	+·060		24·997	9th	24·802	24th	·195	59·0	73·7	−2·6	51·4	−0·1	62·6	−1·4	22·3	82·3	3rd & 4th,	46·2	1st	36·1
		Skardu		22·888			23·014	1st	22·737	18th	·277	60·7	74·3		51·5		62·9		22·8	83·5	24th	45·2	8th	38·3
		Dras		20·869			20·988	1st	20·732	18th	·256	49·5	65·5		32·3		48·9		33·2	75·9	25th	21·6	1st	54·3
		Gilgit		25·119			25·215	1st	24·958	17th	·257	69·0	84·2		61·7		73·0		22·5	93·9	25th	50·1	8th	43·8
		Chitral		24·723			24·850	12th	24·575	23rd	·275	63·1	80·1		53·5		66·8		26·6	90·7	24th	44·5	7th	46·2
		Killa Drosh										62·4	80·8		56·7		68·8		24·1	93·4	14th	43·7	6th	49·7
		Para Chinar	6,000									67·6	77·5		56·1		66·8		21·4	85·3	31st	46·7	8th	38·6
		Cherat		25·663	+·068		25·776	19th	25·559	31st	·217	71·3	83·7	−5·3	65·3	−2·8	74·5	−4·1	18·4	95·4	31st	50·0	8th	45·4

* Mean of 29 days.

I—*continued.*

in India, Burma, etc., in May, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 31st May, 1900.	Normal rainfall for period, 1st March to 31st May.	Variation from normal of period, 1st March to 31st May.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				1·90	2·58	− 0·70					XI.—South India.		
			1	9	9	11	1		S 2° W	12·0	12·8			79	·980	2·7	1	2·30	− 1·30	0·91	2·21	− 1·30	5·80	7·13	− 1·33	0·80	Pamban	Madras (South).	57
	2	1		3	1	10	7	7	S 81° W	4·0	3·8			62	·801	3·7	2	3·80	− 1·80	1·74	1·65	+ 0·09	4·06	4·95	− 0·89	1·48	Tinnevelly.		
2	4	4	2	2	1		3	13	N 24° W	1·6	1·6	3·7	− 57	71	·877	3·2	6	4·00	+ 2·00	5·05	2·87	+ 2·18	10·73	5·36	+ 5·37	1·47	Madura.		
13	3	1	2	1	3	1	3	4	N 56° W	2·4	2·6			70	·793	3·2	7			3·38			7·65			1·40	Periya Kulam		
5			1	1	3	14	7		S 48° W	4·5	4·1	4·4	− 7	71	·866	3·4	5	8·64	− 3·64	1·79	5·20	− 3·41	5·66	7·66	− 2·00	0·64	Salem	Madras (South Central).	34
	1		3	1	5	13	8		S 44° W	2·7		5·3	− 49	82	·892	5·6	4	6·45	− 2·45	1·65	2·61	− 0·96	4·66	4·91	− 0·25	0·71	Coimbatore.		
7	2	1					3	18	N 44° W	6·1	5·8	5·3	+ 9	82	·607	5·1	3	10·00	− 7·00	0·95	6·59	− 5·64	3·38	10·18	− 6·80	0·58	Mercara	Coorg.	35
					1	9	15	6	S 83° W	8·8	7·7			65	·650	3·9	1			0·97	3·69	− 2·72	2·41	5·11	− 2·70	0·81	Chitaldroog	Mysore.	36
1	1				2	8	15	4	S 81° W	8·5	7·4	5·5	+ 35	70	·680	3·5	2	7·55	− 5·55	4·84	4·02	+ 0·82	6·43	5·71	+ 0·72	3·03	Bangalore.		
		1	1			7	12	10	N 82° W	4·0	3·5			68	·609	4·4	4			3·58	4·55	− 0·97	6·72	6·71	+ 0·01	1·61	Hassan.		
1						11	15	4	S 79° W	9·2	9·9			72	·696	5·4	4			1·12	5·67	− 4·55	3·77	8·60	− 4·83	0·36	Mysore.		
5			1	1	7	10	6	1	S 41° W	9·2	10·0	7·4	+ 35	73	·941	4·0	3	2·18	+ 0·82	1·38	1·94	− 0·56	5·35	2·83	+ 2·52	0·72	Negapatam	Madras (East Coast, South).	56
				1	16	12	1	1	S 21° W	3·0	3·7			77	·987	4·2	1	1·50	− 0·50	0·87	1·26	− 0·39	3·68	2·45	+ 1·21	0·87	Cuddalore.		
12				1		1	16	1	S 88° W	4·8		6·0	− 20	70	·858	4·1	2	3·91	− 1·91	3·28	3·04	+ 0·24	8·87	5·12	+ 3·75	2·15	Trichinopoly.		
				3	15	12	1		S 16° W	9·2		9·2	0	69	·919	3·8	0	1·45	− 1·45	0	2·12	− 2·12	3·09	3·13	− 0·04	0	Madras.		
9		2	3	5	2	1	2	7	N 72° E	4·7				62	·767	1·9	4			1·15						0·60	Vellore.		
				10	11	1	5	4	S 6° W	8·2				68	·942	5·3	0	2·10	− 2·10	0·12	1·11	− 0·99	3·14	1·44	+ 1·70	0·08	Nellore	Madras (East Coast, Central).	55
1		1		5	10	7	5	2	S 24° W	9·7		8·9	+ 9	79	1·055	6·1	0	2·73	− 2·73	0·22	1·55	− 1·33	4·57	1·82	+ 2·75	0·09	Masulipatam		
			1	3	1	8	14	4	S 73° W					54	·798	3·8	3	3·40	− 0·40	2·00	1·60	+0·40	3·17	2·04	+ 1·13	1·12	Cuddapah	Madras (Central).	54
2	3				3	2	15	6	N 82° W					44	·576	3·5	1	2·67	− 1·67	0·30	1·16	− 0·86	0·87	2·35	− 1·48	0·20	Kurnool.		
3	2		1		1	2	7	15	N 61° W	8·1	8·6	8·4	+ 2	43	·529	4·5	2	3·36	− 1·36	2·63	1·70	+ 0·93	5·10	2·50	+ 2·60	1·91	Bellary.		
3	1	3		3	9	7	4	1	S 24° W	8·4	7·7			75	·973	6·3	1	3·60	− 2·60	3·20	1·22	+ 1·98	5·31	1·96	+ 3·35	3·08	Cocanada.	Madras (East Coast, North).	52
						29	2		S 48° W	1·6				74	·918	5·2	2			1·69			2·75			1·13	Waltair (Vizag).		
	2		2		5	18	2	2	S 45° W	18·3	17·9	13·3	+35	86	1·020	1·1	4	3·44	+ 0·56	1·94	2·35	− 0·41	2·38	3·80	− 1·42	0·84	Gopalpur.		
																											XII.—Hill Stations.		
12	1					8		10	N 81° W	2·5				32	·340	2·0	1			0·16	0·48	− 0·32	1·85	1·86	− 0·01	0·12	Shahrig	Baluchistan.	48
																	4			0·66	0·19	+ 0·47	3·28	2·74	+ 0·54	0·19	Pishin.		
28							2	1	N 75° W	1·3	1·4	4·7	− 70	56	·384	2·5	4	1·18	+ 2·82	1·08	0·41	+ 0·67	3·29	3·31	− 0·02	0·52	Quetta.		
					28		3		S 6° W					48	·285		3			0·71	0·16	+ 0·55	1·88	2·22	− 0·34	0·32	Kalat.		
	1	1	2	4	6	11	4	2	S 30° W	7·4	7·8			65	·622	1·2	1			0·26	0	+ 0·26	1·99	1·81	+ 0·18	0·18	Chaman.		
		2	3	3	7	13	2		S 16° W	3·0				36	·127	4·2	1			0·25	0·09	+ 0·16	1·60	0·43	+ 1·17	0·15	Leh	Punjab.	30
17		2		6	3	1	1	1	S 27° E	4·0	4·3			89	·454	4·0	7			3·83	2·31	+ 1·52	15·79	5·96	+ 9·83	0·83	Srinagar.		
7	3	5	3	1	3	3	4	2	N 9° W	8·7	10·4			54	·285	4·4	0			0·06	1·01	− 0·95	1·73	6·41	− 4·68	0·03	Skardu.		
22					1	4	3	1	S 65° W	5·7	5·9			49	·174	2·7	2			0·89			9·25			0·46	Dras.		
28							3		W	1·8	1·8			46	·314	5·7	2			0·35	0·41	− 0·06	1·31	1·88	− 0·57	0·19	Gilgit.		
26	2					2		1	N 63° W	2·7	2·6			70	·402		10			5·05			9·15			2·26	Chitral.		
7	6		12		4		1		N 80° E					78	·441	4·4	7			4·98			10·03			2·41	Killa Drosh.		
	3	4	2		1	4	9	7	N 60° W	4·4				49	·327	4·2	8			2·09			9·12			0·53	Para Chinar.		
	15	2		1	4			9	N 13° W	11·3	10·5			49	·362	3·6	6			3·64	1·45	+ 2·19	10·46	8·68	+ 1·78	2·17	Cher		

Table

Abstract of Observations taken at 8 A.M. at 217 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
30	Punjab—(*concld.*)	Murree	6,333	23·858	+·076		23·954	15th	23·725	7th	·229	66·3	74·6	−1·3	58·1	−0·7	66·4	−1·0	16·5	84·3	25th	48·0	7th	36·3
		Poo											69·1		46·8		58·0		22·3	77·2	24th	33·8	8th	43·4
		Simla	7,224	23·138	+·067		23·219	15th	23·062	23rd	·157	62·4	70·8	−0·8	56·4	−1·0	63·6	−0·9	14·4	77·4	25th	48·8	17th	28·6
25	North-Western Provinces.	Chakrata	7,022	23·344	+·113		23·442	21st	23·239	23rd	·203	62·8	71·6	−2·2	55·5	−0·4	63·6	−1·3	16·1	79·3	26th & 31st.	46·7	8th	32·6
		Mussooree	6,705	23·573	+·059		23·663	14th	23·484	23rd	·179	64·3	73·9	−1·7	58·2	+1·0	66·1	−0·4	15·7	82·3	31st	51·5	7th	30·8
		Ranikhet	6,069	24·110	+·069		24·210	14th	23·998	23rd	·212	66·8	76·8	−0·1	59·9	+0·5	68·4	+0·2	16·9	86·0	26th	51·0	8th	35·0
		Muktesar		22·878			22·969	14th	22·779	23rd	·190	62·2	72·5		53·4		63·0		19·1	82·0	26th	46·0	9th	36·0
13	Bengal	Yatung	10,480?										58·6		38·4		48·5		20·2	64·1	3 days	32·9	2nd	31·2
		Darjeeling	7,409	23·029	+·087		23·121	2 days	22·929	23rd	·192	57·3	64·0	+1·3	49·9	−0·8	56·9	+0·3	14·1	68·2	25th	45·0	10th	23·2
		Gantok	5,660	24·506			24·591	14th	24·415	31st	·176	62·5	72·7		40·8		56·7		31·9	76·0	15th	36·4	10th & 11th.	39·6
	Central India	Mount Abu	3,945	26·029	+·054		26·104	10th & 20th.	25·960	5th	·144	76·9	86·3	−2·3	70·2	−0·7	78·3	−1·5	16·1	91·3	3rd	61·4	7th	29·9
		Pachmarhi	3,528	26·429	+·067		26·517	14th	26·357	26th	·160	83·5	95·9	+1·3	76·1	+1·5	86·0	+1·4	19·8	99·7	3 days	68·2	1st & 17th	31·5
	South India	Wellington*	6,200	24·289	+·048		24·349	11th	24·250	17th	·099	70·1	79·8	+3·9	58·2	−0·1	68·9	+1·9	21·6	82·7	9th & 15th.	55·1	15th & 29th.	27·6
		Kodaikanal	7,688	22·878			22·940	10th	22·828	27th	·112	62·9	69·7		55·2		62·4		14·5	76·0	8th & 9th.	50·6	29th	25·4
XIII.—Extra India.																								
	Ceylon	Trincomalee	12	29·877	+·057	29·815	29·962	10th	29·792	27th	·170	84·4	93·6	−1·9	79·5	+1·4	86·6	−0·3	14·1	96·5	12th & 17th	76·5	2nd	20·0
		Colombo	40	29·898	+·044	29·863	29·980	10th	29·827	27th	·153	84·2	89·7	+2·1	78·7	+0·3	84·2	+1·2	11·0	92·5	14th & 18th.	74·0	1st	18·5
	Persia	Meshed	3,104									68·7			58·2							45·9	6th & 7th.	
		Teheran	‡	25·378† / 25·293‖			26·140 / 25·460	5th / 5th	25·700 / 25·120	21st / 21st	·440 / ·340	70·0‡	81·1‡		48·4‡		64·8‡		32·7	92·6	15th	29·4	4th	63·2
		Ispahan		24·338†			24·450	14th	24·175	21st	·275	68·1	83·3		51·7		67·6		31·6	87·9	15th & 20th.	41·5	5th	46·4
		Bushire*	14	29·827	+·063	29·800	29·932	1st	29·747	2nd	·185	81·8	89·1	−0·7	74·6	−0·7	81·9	−0·7	14·5	103·5	21st	67·1	1st	36·4
		Jask		29·790	+·040		29·904	7th	29·684	17th	·220	84·9	92·1	−0·1	78·2	0	85·2	−0·1	13·9	94·8	14th	70·2	9th	24·6
	Arabia	Muscat	20	29·801		29·768	29·910	7th & 8th.	29·707	29th	·203	87·6	89·7		85·0		87·4		4·7	93·9	13th	82·2	7th	11·7
		Baghdad	220	29·711	−·001	29·907	29·900	10th	29·574	7th	·326	76·7	93·3	+1·8	66·2‡	−1·8	79·9‡		27·1	102·6	14th	59·4	5th	43·2
		Busrah		29·852			29·983	11th	29·704	20th	·279		93·4		75·5		84·5		17·9	99·7	20th	69·4	4th	30·3
		Aden	94	29·817	+·047	29·842	29·871	1st	29·757	24th	·114	85·4	91·2	−2·5	81·7	+1·0	86·5	−0·8	9·5	95·3	24th	76·4	3rd	18·9
		Perim	201	29·669		29·802	29·742	18th	29·525	13th	·217	85·7	91·4		82·2		86·8		9·2	96·4	26th	77·7	3rd	18·7
	Afghanistan	Kabul										63·2‡	80·1‡		52·7‡		66·4‡		27·4‡	87·1	30th	42·8	8th	44·3
	Central Asia	Kashgar		25·568			25·840	20th	25·314	25th	·526	69·4	84·3		60·5		72·4		23·8	95·2	26th	50·8	24th	44·4
	Arabian Sea Island.	Minicoy	7	29·888		29·820	29·952	10th	29·817	27th	·135	85·7	90·0							92·4	5th			
	Africa	Zanzibar	73	30·005	−·008	30·005	30·075	11th	29·940	23rd	·135	78·5	84·1		76·4		80·3		7·7	87·2	4th	72·6	13th	14·6

† Aneroid uncorrected. ‡ Mean of 30 days.
‖ Mountain barometer uncorrected.

NOTE.—When a query is inserted against any reading or in the variation returns for any

I—*concluded.*

in India, Burma, etc., in May 1900—concluded.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st March to 31st May 1900.	Normal rainfall for period, 1st March to 31st May.	Variation from normal of period, 1st March to 31st May.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
14	4	1	1	4	6	1			S 39° E	6·2	7·6	8·3	− 8	46	·293	2·7	7	5·55	+1·45	2·52	3·50	− 0·98	13·51	10·55	+ 2·96	0·71	Murree.	Punjab—(*concld.*)	30
																3·4	2			1·75	0·71	+ 1·04	8·68	6·54	+ 2·14	1·11	Poo.		
5	13	5	2	1	1	1		1	N 18° E	6·0		2·9	+107	49	·271	3·4	9	6·18	+2·82	4·07	3·64	+ 0·43	7·88	7·78	+ 0·10	1·27	Simla.		
4	6	6		5	2	2		6	N 15° E	10·8		6·0	+ 80	50	·274	2·4	7			2·75	2·62	+ 0·13	7·97	6·49	+ 1·48	0·69	Chakrata .	North-Western Provinces.	25
3	2	2	12	1			3	8	N 33° E					50	·293	1·7	6	4·55	+1·45	2·35	2·51	− 0·16	7·11	6·51	+ 0·60	0·47	Mussooree.		
13	2	1	3	1		1	5	5	N 45° W	3·5	4·0	3·3	+ 21	52	·336	2·3	9	6·00	+3·00	1·68	2·71	− 1·03	6·19	6·06	+ 0·13	0·34	Ranikhet.		
7			2	9	3	3	1	6	S 8° E	6·3	5·8			55	·304	3·2	12			4·40			8·37			1·29	Muktesar.		
																	11			3·73			10·80			0·99	Yatung .	Bengal.	13
14		5	4	1		4	3		E	5·6	5·2	6·2	− 16	82	·385	4·9	10	13·56	−3·56	4·93	8·50	− 3·57	10·24	14·76	− 4·52	1·02	Darjeeling.		
27		1	1						N 68° E	3·8*	4·5*			73	·412	3·1	15			11·71	26·66	−14·95	21·06¶	42·04	?	2·00	Gantok		
		3		2	1	14	8	3	S 64° W	11·3	11·8	9·4	+ 26	37	·334	0·5	1	1·45	−0·45	0·42	1·18	− 0·76	1·46	1·36	+ 0·10	0·37	Mount Abu	Central India.	
6	5	1					4	15	N 40° W	9·9	10·2	6·8	+ 50	47	·536	1·9	0	2·09	−2·09	0·02	0·66	− 0·64	0·25	1·21	− 0·96	0·02	Pachmarhi.		
15	9	3		1				1	N 10° E	3·6		3·0	+ 20	57	·420	3·0	6	8·48	−2·48	1·91	3·95	− 2·04	4·85	9·54	− 4·69	0·37	Wellington.	South India.	
2	1	9	4	5				10	N 33° E	6·2				65	·368	4·5	11			6·05			12·15			1·34	Kodaikanal.		
																											XIII.—Extra India.		
						31			S 45° W	9·3				82	·972	1·8	4			1·45	4·97	− 3·52	6·84	8·30	− 1·46	0·85	Trincomalee	Ceylon.	
				2	6	20	3		S 36° W	8·5		8·5	0	83	·975	5·9	7			15·60	11·79	+ 3·81	29·02	2·876	+ 0·26	5·39	Colombo.		
														64	·452	1·6	3			1·66	0·81	+ 0·85	4·85	4·94	− 0·09	0·79	Meshed .	Persia.	
	2	6	1		4	9	5	3	S 76° W	2·8		3·7	− 24	39‡	·274‡	3·6‡	5			0·38	0·34	+ 0·64	2·35	4·13	− 1·78	0·25	Teheran.		
9	1					1	1	4	N 59° W	3·1	4·0			73	·511	1·1	0			0·08	0·17	− 0·09	0·18	2·53	− 2·35	0·07	Ispahan.		
1	4	5	2	3	1	2		13	N 14° W	8·3	9·9	8·9	+ 11	56	·604	1·3	0			0·04	0·03	+ 0·01	0·06	1·80	− 1·74	0·04	Bushire.		
5		1	7	5	2	3	3	5	S 38° E	11·4	13·2			70	·840	0·8	0			0	0	0	0	1·25	− 1·25	0	Jask.		
7	3	3	1	4		1	2	10	N 24° W	4·3	4·5			58	·751	2·5	0			0	0	0	0·65	1·14	− 0·49	0	Muscat .	Arabia.	
14	6	1			1		3	6	N 35° W	1·8	2·4			52	·481	2·8	0			0	0·26	− 0·26	1·03	3·38	− 2·35	0	Baghdad.		
1	17				11		2		N 18° W											0			0·12			0	Busrah.		
4	1	6	18	1			1		N 79° E	13·1		10·6	+ 23	72	·884	4·8	0			0	0·21	− 0·21	0·03	2·03	− 2·00	0	Aden.		
		2	8	12	9				S 48° E	16·9	15·8			75	·923	1·9	1			0·36	0·15	+ 0·21	1·52	0·31	+ 1·21	0·27	Perim.		
21	1	1	3			1		3	N 18° E					54‡	·319‡	2·1*				1·17	0·27	+ 0·90	6·27	8·42	− 2·15	0·40	Kabul .	Afghanistan.	
18	2	2	1		5		2	1	S 15° W	9·5	8·6			17	16	6·2	2			0·33	1·65	− 1·32	1·02	2·02	− 1·00	0·17	Kashgar .	Central Asia.	
	9					1	3	18	N 37° W	6·0	6·4			73	·897	2·9	5			3·87			5·19			1·58	Minicoy.	Arabian Sea Island.	
				2	16	12	1		S 17° W	7·8	7·3			86	·843	6·6	11			9·95	8·84	+ 1·11	32·42	25·83	+ 6·60	2·58	Zanzibar .	Africa.	

station, the data for that station are not utilized in calculating the provincial variations.

* Mean of 24 days.

¶ Total rainfall for March and May only.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66

Meteorological Province.	Station.	Elevation of barometer above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
Burma Coast and Bay Islands.	Port Blair		29·860	29·760	·100	29·808	+·055	29·799	89·5	79·5	10·0	93·7	75·5	18·2	86·2	86·6	83·5	+ 1·3	77·1	80·9	80·7	79·6
	Rangoon		·845	·725	·120	·789	+·034	·767	91·1	77·2	13·9	97·8	70·6	27·2	85·5	86·4	82·1	− 0·4	75·4	79·5	79·6	78·2
	Diamond Island		·862	·758	·104	·808	+·042	·784	88·7	81·2	7·5	91·6	75·7	15·9	85·7	86·2	4·0	+ 1·3	76·0	79·6	79·4	78·3
	Cocos Island ‖	111	·822	·732	·090	·775	?	·818	92·0	80·8	11·2	96·2	75·1	21·1	88·3	88·8	85·3	+3·2	72·6	80·6	80·5	77·9
	Akyab		·847	·727	·120	·791	+·033	·754	94·4	?	?	99·0	?	?	88·5	89·7	?	?	?	80·9	80·0	?
Bengal and Orissa.	Chittagong		·770	·657	·113	·715	+·046	·749	90·9	74·3	16·6	94·7	69·2	25·5	86·0	86·8	81·5	+ 0·5	72·7	77·7	78·1	76·2
	Calcutta (Alipore)		·795	·670	·125	·734	+·076	·700	95·6	76·1	19·5	99·4	69·7	29·7	89·1	91·6	85·3	− 0·1	73·6	80·4	80·0	78·0
	Saugor Island		·793	·684	·109	·741	+·074	·710	91·9	79·1	12·8	93·1	70·6	22·5	88·6	88·1	84·2	− 1·0	75·7	81·8	81·2	79·6
	False Point		·797	·681	·116	·741	+·057	·703	90·8	78·9	11·9	92·3	69·7	22·6	88·6	88·1	83·9	− 0·1	76·5	82·0	82·2	80·2
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·792	27·679	·113	27·740	+·057	·637	97·4	74·9	22·5	106·1	68·1	38·0	89·3	93·3	85·0	− 0·6	66·0	71·5	70·6	69·4
	Darbhanga		29·631	29·486	·145	29·557	+·059	·673	95·0	75·8	19·2	103·1	69·0	34·1	88·2	93·6	84·7	+ 0·1	71·7	76·4	77·1	75·1
	Allahabad		·440	·316	·124	·378	+·061	·630	104·8	79·6	25·2	113·1	70·9	42·2	96·6	102·8	92·2	− 0·2	68·7	75·3	75·1	73·0
Upper Sub-Himalayas.	Dehra Dun		27·567	27·473	·094	27·510	+·050	·645	95·4	69·9	25·5	104·6	63·3	41·3	86·8	89·9	81·6	− 1·0	59·9	65·9	66·3	64·0
	Roorkee		28·863	28·743	·120	28·797	+·063	·623	102·4	75·0	27·4	112·7	64·6	48·1	93·1	99·4	88·3	+ 0·4	62·5	69·4	70·0	67·3
	Meerut		·999	·881	·118	·932	+·054	·611	103·6	77·8	25·8	110·8	70·3	40·5	94·0	100·1	90·1	+ 1·6	65·4	72·9	72·8	70·4
	Lahore		29·027	·925	·102	·969	+·062	·619	102·1	76·6	25·5	109·8	67·3	42·5	92·2	100·8	89·3	+ 1·9	65·5	71·1	73·1	69·9
	Lahore (New Shed)								104·6	75·3	29·3	113·9	67·1	46·8	94·9	101·5	89·5		65·4	71·5	72·9	69·9
	Ludhiana		28·914	·807	·107	·854	+·052	·607	103·5	77·5	26·0	112·3	70·1	42·2	93·7	101·6	90·3	+ 2·4	65·7	70·0	71·3	69·0
Indus Valley and N.-W. Rajputana.	Peshawar		·675	·585	·090	·623	+·080	·697	95·5	69·8	25·7	106·0	61·0	45·0	88·1	91·7	82·0	− 1·4	62·3	69·6	71·1	67·6
	Jacobabad		29·536	29·407	·129	29·464	+·056	·600	112·2	80·3	31·9	121·8	66·1	55·7	99·8	110·2	96·1	+ 1·9	65·0	76·6	79·9	73·8
	Kurrachee		·804	·713	·091	·757	+·081	·737	93·5	80·1	13·4	100·4	75·4	25·0	89·1	89·2	84·8	+ 0·8	75·1	79·7	80·6	78·5
East Rajputana, Central India, and Gujarat.	Jaipur		28·372	28·261	·111	28·313	+·068	·661	103·1	77·8	25·3	110·2	67·1	43·1	93·4	100·6	90·0	− 0·6	64·9	71·3	71·9	69·4
	Udaipur		27·914	27·811	·103	27·863		·678	99·9	78·5	21·4	106·3	61·7	44·6	92·8	97·6	88·6		67·6	73·8	76·4	72·6
	Deesa		29·372	29·234	·138	29·302	+·068	·708	105·1	77·9	27·2	110·3	72·0	38·3	92·0	103·4	90·8	− 0·4	67·2	73·0	71·1	70·4
	Jamnagar		·978	·702	·096	·750		·757	96·1	76·1	20·0	103·1	70·4	32·7	91·1	92·3	85·2		?	77·0	76·8	?
Deccan.	Belgaum		27·374	27·263	·111	27·322	+·044	·719	96·4	67·6	28·8	101·8	64·0	37·8	86·8	89·1	79·0	+ 1·3	65·0	68·1	72·1	68·4
	Sholapur		28·277	28·131	·146	28·206	+·054	·680	106·9	78·2	28·7	110·2	74·5	35·7	95·7	103·7	91·4	+ 2·2	64·8	69·1	70·5	68·1
	Poona		·059	27·937	·122	·006	+·057	·726	102·7	70·8	31·9	107·6	65·2	42·4	91·9	99·3	86·1	+ 1·7	64·7	67·9	69·2	67·2
	Akola		·894	28·749	·145	·820	+·061	·665	109·4	81·2	28·2	114·4	69·4	45·0	100·1	107·4	95·1	+ 1·3	68·2	72·0	73·0	71·1
	Buldana	2,132	27·741	27·615	·126	27·677	+·059	·669	103·1	78·2	24·9	107·6	71·6	36·0	92·0	101·0	90·4	+ 1·7	61·8	68·1	67·5	65·8
	Khandwa		28·790	28·646	·144	28·717	+·068	·678	106·8	82·5	24·3	112·2	76·6	35·6	96·1	105·7	94·3	+ 1·8	63·5	71·5	71·2	68·7
	Nagpur		·770	·620	·150	·694	+·062	·629	110·5	83·4	27·1	114·2	74·9	39·3	100·9	107·3	96·5	+ 1·9	62·8	70·3	71·0	68·0
	Nagpur (Sanitary Commr.'s Office)		·787	·645	·142	·715		·639	111·7	83·8	27·9	114·9	74·5	40·4	102·3	109·1	97·1		62·4	66·8	71·5	66·9
	Hyderabad (Deccan).		·159	·030	·129	·095	+·048	·660	105·9	82·0	23·9	110·1	76·6	33·5	96·6	102·3	93·1	+ 2·0	68·3	72·2	71·8	70·8
West Coast.	Bombay		29·886	27·787	·099	29·835	+·066	·811	90·8	80·7	10·1	92·5	78·0	14·5	86·6	87·6	84·9	+ 0·2	74·8	78·4	78·8	77·3
	Karwar		·897	·798	·099	·845	+·066	·821	89·7	80·0	9·7	90·8	76·4	14·4	86·6	87·5	84·2	+ 0·3	76·0	77·2	78·2	77·1

† Mean of 25½ days.

II.

Stations in India, Burma, etc., for May, 1900.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%						
·901	·989	·976	·955	+·018	89	79	77	82	−1	6·7	7·2	7·0	+0·3			3	1	11	7	6	23	11	S. 68° W.	S. 38° W.	42	41	190	171			Port Blair	Burma Coast and Bay Islands.
·858	·927	·922	·902	+·032	92	76	74	81	+3	7·4	8·3	7·9	+1·0		1	4	4	10	15	16	9	3	S. 17° W.	S. 21° W.	47	58	93	113			Rangoon	
·825	·932	·911	·889	−·002	78	76	73	76	+2	6·1	6·0	6·1	−0·2	3			5	4	9	7	14	20	S. 81° W.	S. 72° W.	40	47	214*	177			Diamond Island, Cocos Island.‖	
·694	·945	·936	·858	−·032	66	71	69	69	−12	5·8	5·4	5·6	−0·9		1	1	1	2	12	4	19	20	S. 89° W.	S. 51° W.	55	58	96	?	8·51	2·30		
?	·953	·894	?	?	?	71	64	?	?	4·7	5·1	4·9	−0·6				15	16	1	8	17	5	S. 1° E.	S. 24° W.	23	30	57	89			Akyab	
·757	·843	·846	·825	−·016	92	68	66	75	−5	5·5	3·3	4·4	−1·0			8		10	18	13	4	9	S. 17° W.	S. 1° E.	37	42	141*	150			Chittagong	Bengal and Orissa.
·802	·926	·876	·868	−·015	88	67	59	71	−3	3·3	4·1	4·0	−0·3			1	3	6	23	24	4	1	S. 18° W.	S. 7° E.	72	65	112	172			Calcutta (Alipore).	
·851	·999	·979	·943	−·044	85	74	73	77	−3	4·7	4·1	4·4	−1·4			2	1	6	37	13	3		S. 6° W.	S. 8° W.	79	73	424	394			Saugor Island.	
·885	1·008	1·025	·973	+·003	88	75	77	80	−2	4·6	4·3	4·5	−0·3					7	41	13	1		S. 5° W.	S. 23° W.	89	73	314*	333			False Point	
·533	·551	·465	·516	+·029	62	41	32	45	+5	3·0	6·0	4·5	+0·9	1	8	2	7	4	21	2	5	12	S. 27° W.	S. 83° W.	13	15	198*	222			Hazaribagh	Gangetic Plain and Chota Nagpur.
·725	·754	·712	·730	−·035	81	57	46	61	−1	1·5	2·0	1·8	−0·2		1	4	25	24	2	1	3	2	S. 70° E.	S. 82° E.	68	60	138	152			Darbhanga	
·552	·594	·499	·551	+·025	56	35	25	39	+2	1·4	2·7	2·1	+0·5	2	6	11	14	1	3	5	10	10	N. 8° E.	N. 3° W.	22	24	172*	149			Allahabad	
·397	·380	·356	·378	−·029	53	31	28	37	−2	1·7	4·8	3·3	+0·6	2	5	6	5	6	7	15	13	3	S. 49° W.	S. 80° W.	26	25	59	54			Dehra Dun	Upper Sub-Himalayas.
·403	·403	·341	·382	−·046	47	27	20	31	−4	1·3	2·3	1·8	+0·2	15	3	1		20	4	2	6	11	S. 2° W	S. 53° W.	13	11	99	90			Roorkee	
·405	·537	·418	·483	−·011	50	34	24	36	−4	4·9	4·2	4·6	+2·9	18	1	2	7	8	2	3	10	11	N. 86° W.	N. 51° W.	10	22	50†	64			Meerut	
·481	·484	·416	·472	+·031	53	34	24	37	+4	2·1	2·0	2·1	−0·1	8	10	3	11	2	16	1	7	4	S. 52° E.	N. 11° E.	8	17	64	79			Lahore	
·498	·460	·427	·462		57	30	23	37																							Lahore (New Shed).	
·477	·421	·369	·422	−·073	51	28	19	33	−8	2·9	3·3	3·1	+1·0	5	17	2	4	6	12		16		N. 72° W.	N. 61° W.	11	11	77*	58			Ludhiana	
·474	·503	·517	·498	+·075	65	40	37	47	+8	3·3	6·3	4·8	+1·9	29	15	3	2	2	1		7	3	N. 12° W.	N. 17° E.	27	29	44*	116			Peshawar	Indus Valley and N.-W. Rajputana.
·416	·602	·613	·544	+·096	41	32	24	32	+2	0·7	1·7	1·2	+0·1	14			9	10	14	6	5	4	S. 11° E.	S. 40° E.	37	10	137*	112			Jacobabad	
·869	·890	·932	·877	−·012	79	65	68	71	−2	1·4	0·7	1·1	−1·0							26	36		S. 72° W.	S. 66° W.	98	86	391*	407			Kurrachee	
·462	·493	·427	·461	+·025	49	33	23	35	+3	1·8	2·6	2·2	0	2	2	3	1		7	11	28	8	S. 82° W.	N. 66° W.	63	49	113	156			Jaipur	East Rajputana, Central India, and Gujarat.
·545	·606	·655	·602		57	40	38	45		0·3	1·5	0·9		5	3		1	4	3	13	21	7	S. 73° W.		58		115				Udaipur	
·551	·563	·382	·476	−·090	56	38	16	37	−3	0·5	0·9	0·7	−0·3		3				4	15	30	8	S. 83° W.	S. 60° W.	78	68	313	225			Deesa	
?	·710	·717	?		?	51	48	?		0·4	0·4	0·4		2					3	27	26	4	S. 68° W.		83		581*				Jamnagar	
·538	·458	·578	·541	−·054	87	37	43	55	−6	1·6	3·2	2·4	−1·2		6	2	2	1	1	12	20	10	N. 82° W.	S. 88° W.	59	60	?	124			Belgaum	Deccan.
·413	·382	·339	·384	−·087	47	23	16	28	−9	1·7	5·0	3·4	−0·7	3	7	4	2	4		4	5	33	N. 41° W.	N. 49° W.	58	55	217*	255			Sholapur	
·519	·384	·339	·423	−·085	72	26	18	39	−5	0·8	1·6	1·2	−1·8							6	44	12	N. 85° W.	N. 74° W.	92	78	432*	342			Poona	
·500	·413	·352	432	+·024	49	22	15	28	0	0·4	1·7	1·1	−1·3		13	1	1				14	33	N. 43° W	N. 50° W.	83	75	236*	224			Akola	
·352	403	·255	·337	−·088	37	27	13	26	−8	0·3	2·0	1·2	−1·3		8	1				2	23	28	N. 58° W.	N. 49° W.	83	69	331*	236	Nil	Nil	Buldana	
·335	400	·328	·381	−·085	32	28	15	25	−8	0·6	2·0	1·3	−0·8		4	5				2	24	27	N. 58° W.	N. 62° W.	77	72	266	241			Khandwa	
·313	·362	·302	·328	−·120	28	18	13	20	−9	2·7	6·1	4·4	+0·6	1	15	3	2	2	2	3	12	22	N. 42° W.	N. 46° W.	58	41	229	228			Nagpur	
·302	215	·305	·274		26	11	12	16		0·5	1·2	2·4				4		8		16		34	N. 70° W.		47		91*				Do. (Sanitary Commr.'s Office).	
·527	·492	·404	·474	−·087	49	29	21	33	−8	2·1	5·7	3·9	+1·0	18	12	4	2	5	1	2	7	11	N. 25° W.	N. 57° W.	29	50	129*	173			Hyderabad (Deccan).	
·786	·853	·869	·841	−·036	75	68	66	70	−4	1·9	1·5	1·7	−2·1		1				3	5	29	24	N. 77° W.	N. 83° W.	82	70	214	247			Bombay	West Coast.
·845	·809	·844	·833	−·020	82	64	65	70	−3	1·7	1·5	1·6	−1·6		1					7	16	38	N. 66° W.	N. 67° W.	84	82	176	128			Karwar	

§ Mean of 29 days. Observations of 30 days. * Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66

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 daily pressure.	Variation from normal.	Mean reduced to S. L., 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
South India.	Periyakulam		28·958	28·821	·137	28·890			98·7	73·4	25·3	103·9	69·1	34·8	87·4	93·3	84·7		70·7§	76·7	76·3	74·5
	Salem		·962	·814	·148	·900	+·025	29·753	102·4	78·6	23·8	108·1	73·6	34·5	91·1	97·8	88·0	+3·1	75·2	79·8	79·2	78·1
	Chitaldroog		27·522	27·386	·136	27·455	+·034	·717	97·6	73·0	24·6	100·8	67·9	32·9	86·1	95·7	84·8	+3·5	67·1	71·3	70·6	69·7
	Bangalore		26·944	26·819	·125	26·889	+·044	·720	95·4	71·6	23·8	100·1	63·3	36·8	85·5	92·3	82·7	+4·1	65·0	70·5	69·8	68·4
	Hassan		·893	·780	·113	·844	+·033	·760	92·1	67·7	24·4	96·2	63·8	32·4	83·9	87·3	78·7	+3·3	65·0	67·8	68·5	67·1
	Mysore		27·439	27·299	·140	27·369	+·027	·742	96·2	71·5	24·7	100·1	66·8	33·3	85·0	93·0	83·1	+4·0	68·4	71·9	71·1	70·5
	Madras		29·838	29·718	·127	29·788	+·056	·738	95·6	82·0	14·6	107·5	78·3	29·2	92·6	89·7	87·4	0		80·8	81·7	80·5
	Bellary		28·406	28·254	·152	28·331	+·041	·705	103·8	79·2	24·6	107·8	70·9	36·9	91·9	100·5	90·3	+1·7	68·0	70·9	72·6	70·5
	Waltair		29·610	29·496	·114	29·553		·718	91·9	80·7	11·2	101·5	72·5	29·0	88·4	87·1	85·1		74·7	79·9	81·1	78·6
Hill Station, Baluchistan.	Quetta		24·635	24·561	·074	24·589	+·042		82·7	51·9	30·8	88·5	41·2	47·3	75·1	76·9	65·9	−1·2	45·8	59·1	59·4	54·8
Hill Stations, Northern India.	Leh		19·778	19·696	·082	19·749	+·056		64·9	36·7	28·2	78·1	30·5	47·6	55·9	59·0	49·6	+1·2	32·0	41·2	43·2	38·8
	Srinagar		24·919	24·842	·077	24·873	+·069		73·3	51·5	21·8	82·3	46·2	36·1	63·8	70·6	61·7	−2·9	50·1	61·3	67·7	59·7
	Kailang	10,087	21·011	20·951	·060	20·993	P		62·4	37·5	24·9	71·3	32·0	39·3	52·6	56·4	48·1	−0·1	35·0	42·8	44·3	40·7
	Simla (Ridge)		23·154	23·105	·049	23·120	+·059		71·0	56·4	14·6	78·6	48·8	29·8	65·8	67·1	63·1	−2·0	48·7	53·5	53·7	51·9
	Chakrata		·356	·304	·052	·321	+·095		71·9	55·6	16·3	81·3	46·7	34·6	67·5	67·0	62·9	−1·9	48·7	53·9	54·0	52·2
	Ranikhet		24·124	24·053	·071	24·077	+·063		77·1	59·8	17·3	86·0	51·0	35·0	71·8	72·2	67·6	−0·6	51·5	57·2	57·4	55·4
	Muktesar		22·894	22·834	·060	22·864			72·6	53·4	19·2	82·0	46·0	36·0	66·2	66·2	61·4		47·6	55·3	54·7	52·5
	Katmandu	4,388	25·521	25·425	·096	25·469	P		84·4	58·7	25·7	91·2	51·6	39·6	74·8	77·7	69·9	−0·8	56·9	64·5	64·4	61·9
	Darjeeling		23·041	22·974	·067	23·003	+·081		64·0	49·9	14·1	68·0	45·0	23·0	59·2	61·8	56·4	+0·1	49·0	55·8	57·9	54·2
Hill Stations, Central India.	Mount Abu		26·044	25·964	·080	26·003	+·043		86·2	70·1	16·1	91·2	61·4	29·8	80·3	84·2	77·7	−1·3	55·8	61·8	63·5	60·4
	Pachmarhi		·437	26·333	·104	·384	+·055		95·9	76·1	19·8	99·7	68·2	31·5	88·5	94·2	85·7	+1·4	61·4	71·4	73·8	68·9
	Chikalda	3,642	·325	·227	·098	·275	+·055		94·7	74·7	20·0	98·4	68·1	30·3	86·3	93·6	84·5	+1·6	60·6	66·5	68·8	65·3
Hill Stations, S. India.	Wellington †		24·296	24·224	·072	24·260	+·055		79·4	58·2	21·2	82·6	55·0	27·6	74·4	72·6	67·1	+1·4	54·7	61·4	61·4	59·2
	Kodaikanal		22·891	22·824	·067	22·852			69·9	55·3	14·6	76·0	50·8	25·2	66·6	62·8	60·8		50·7	57·2	57·8	55·2
Extra India.	Aden		29·828	29·714	·114	29·768	+·051	·793	91·5	81·7	9·8	96·1	76·5	19·6	87·2	89·8	86·4	+0·3	75·9	78·9	78·3	77·7
	Perim		·684	·563	·121	·621	+·035	·752	91·3	82·2	9·1	94·6	77·7	16·9	88·1	88·8	86·1	−0·5	79·2	80·1	80·2	79·8
	Minicoy		·902	·819	·083	·859		·791	90·0			92·4			87·6	87·5				79·4	79·5	
	Zanzibar		30·030	·931‡	·099	·981	+·006	·981‡	84·1	76·4	7·7	87·5	72·6	14·9	80·0	83·2‡	80·0‡	+2·0	73·1	76·2	76·5‡	75·3
	Port Victoria (Seychelles).	15	29·986	·900	·086	·943	+·002	·882	85·2	76·1	9·1	87·7	72·9	14·8	83·7	84·7	80·5	−0·4	74·2	77·6	78·1	75·6
	Mauritius (Pamplemousses).	181				·890	−·017	30·019				87·6	57·7	29·9			73·8	+1·0				

† Observation of 30 days. ‡ Mean of 30 days. § Mean of 29 days.

II—*concluded.*

Stations in India, Burma, etc., for May, 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Number of winds from																		
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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		
																									%	%						
·746§	·733	·659	·722		85§	59	46	64		2·5	5·7	4·1		16	5	5	8	6	8	7	2	5	S. 48° E.		11		62*				Perizakulam	South India.
·832	·844	·761	·812	+·050	85	60	43	63	0	3·3	5·9	4·6	0	8	2	3	6	2	9	17	11	4	S. 47° W.	S. 47° W.	37	55	110*	98			Salem.	
·594	·583	·446	·541	−·026	73	47	27	49	−7	2·6	3·7	3·2	−1·0		5	4	4	1		6	21	21	N. 62° W.	N. 86° W.	60	75	186*	232			Chitaldroog.	
·545	·575	·470	·530	−·064	71	48	32	50	−12	2·7	4·6	3·7	−0·7	1	14	7	1	1	3	5	14	16	N. 44° W.	S. 78° W.	52	68	179*	143			Bangalore.	
·588	·500	·482	·523	−·087	86	44	39	56	−14	4·1	7·1	5·6	+0·2		7	10	5	1		8	14	17	N. 44° W.	N. 85° W.	43	72	84*	109			Hassan.	
·658	·623	·491	·591	−·014	85	52	33	57	−7	5·9	7·3	6·6	+1·2		8	6	2	1	2	9	17	17	N. 62° W.	S. 83° W.	52	64	233*	271			Mysore.	
	·898	·973	·920	+·043		59	70	72	+4	3·4	2·8	3·1	−0·7				3	16	29	9	5		S. 3° E.	S. 13° E.	76	65	221	219			Madras.	
·550	·497	·451	·499	−·078	56	33	23	37	−7	4·3	6·3	5·3	+0·4	8	10	1			1	1	11	30	N. 47° W.	N. 73° W.	71	55	207*	201			Bellary.	
·786	·911	·986	·894		75	68	76	73		3·9	5·7	4·8					1			59	1	1	S. 46° W.		95		172				Waltair.	
·251	·338	·328	·306	+·030	64	39	37	47	+6	2·5	5·0	3·8	+2·6	34			2	2	4	3	13	4	S. 72° W.	N. 68° W.	24	47	33*	91			Quetta.	Hill Station, Baluchistan.
·145	·135	·147	·142	+·014	65	30	29	41	+2	4·5	7·4	6·0	−0·3		4	8	7	5	10	13	10	5	S. 34° W.	S. 71° W.	19	31	75	73			Leh.	Hill Stations, Northern India.
·351	·522	·664	·512	+·081	91	86	86	88	+17	4·2	6·0	5·1	+1·6	19	8	4	1	8	4	1	3	14	N. 22° W.	S. 78° E.	18	11	97*	95			Srinagar.	
·186	·192	·188	·189	+·005	82	49	43	58	+2	4·7	7·2	6·0	+0·1		2	1	3	1	10	26	16	3	S. 53° W.	S. 58° W.	64	69	49	56	3·27	1·44	Kailang.	
·265	·280	·276	·274	−·005	60	46	43	50	+4	3·7	6·0	4·9	+1·1	3	31	8	2	2	5	5	2	3	N. 3° E.	N. 12° W.	47	33	142	143			Simla (Ridge).††	
·273	·278	·284	·278	+·002	63	43	46	51	+3	2·4	6·0	4·2	+0·7	7	1	2	1	18	26	5		2	S. 15° E.	S. 65° W.	64	33	260	164			Chakrata.	
·298	·319	·320	·312	−·022	59	43	43	48	−2	2·4	4·8	3·6	+0·2	6	3	5	3	2	4	11	18	10	N. 89° W.	S. 65° W.	40	43	99*	94			Ranikhet.	
·272	·327	·314	·304		68	52	51	57		3·9	6·3	5·1		8	4	4	6	14	6	6	3	11	S. 32° E.	¶	11		139*				Muktesar.	
·450	·496	·460	·469	−·027	90	58	50	66	−2	3·9	6·1	5·0	−0·4			1	17	7	1	16	18	2	S. 28° W.	S. 88° W.	27	49	43	43	3·79	1·25	Katmandu.	
·339	·411	·440	·397	−·011	93	82	80	85	−2	5·8§	7·4‖	6·6	−0·8	1		16	5	2	2	23	11	2	S. 58° W.	S. 74° W.	21	38	126*	170			Darjeeling.	
·285	·342	·350	·326	−·028	40	34	31	35	−2	0·7	1·6	1·2	−0·2		3			1	5	33	10	5	S. 56° W.	S. 67° W.	77	71	284*	247			Mount Abu.	Hill Stations, Central India.
·379	·576	·601	·519	+·170	42	43	38	41	+9	1·8	3·7	2·8	0	4	10	5				5	11	27	N. 46° W.	N. 66° W.	68	58	246*	170			Pachmarhi.	
·368	·424	·417	·403	+·030	43	34	26	35	0	1·3	3·0	2·2	−0·7	16	26	4					1	15	N. 12° W.	N. 36° W.	65	65	293*	259	0·02	0·02	Chikalda.	
·397	·413	·432	·414	−·025	81	49	55	62	−7	3·9	6·5	5·2	−0·6	4	19	9		16	7		1	3	N. 57° E.	N. 87° E.	28	19	84¶	71			Wellington††	Hill Stations, S. India.
·339	·379	·436	·385		76	59	75	70		4·8	7·5	6·2		3	4	8	10	17	1			18	N. 58° E.		29		146				Kodai kanal.	
·817	·876	·812	·835	−·011	76	68	58	67	−1	4·1‖	3·2	3·7	+2·1	1		13	24	6	5	11	1	1	S. 76° E.	S. 60° E.	47	40	310**	266			Aden.	Extra India.
·964	·929	·923	·939	+·064	87	69	68	75	+6	1·0	0·5	0·8	−0·8			1	24	24	12			1	S. 56° E.	S. 82° E.	79	32	377*	337			Perim.	
	·896	·902				65	69			3·4	4·5	4·0			17	1	1			1	9	33	N. 38° W.		83		153*				Minicoy.	
·775	·851	·826‡	·817	+·022	85	84	73‡	81	−1	5·9	5·8‡	5·9	+0·1	1	1			16	31	11	1		S. 3° E.	S. 5° E.	80	85	171*	194			Zanzibar.	
·825	·873	·878	·859	+·047	91	75	74	80	+4	4·5	4·4	4·5	−0·6	6	4	4	5	22	13	1	1	6	S. 44° E.	S. 44° E.	40	58	128	173	4·20	0·80	Port Victoria (Seychelles).	
			·638					77	+1																		233	245	1·36	0·21	Mauritius (Pamplemousses).	

* Corrected. ‖ Mean of 28 days. ¶ Mean of 29½ days. ** Mean of 28½ days. †† Wind variable 1.

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Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure [illegible] indicate the barometric [illegible] in inches and are drawn for differences of pressure of ·05 inch. [illegible] observations, and by comparison with the ordinary or normal distribution of [illegible] by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of [illegible] Meteorological Department. [illegible] they have not the same validity as the isobars in the land area of [illegible] they deviate very little [illegible] 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 [illegible] formula applied to the winds as given in Table I of the 8 a.m. observations. The mean wind directions for the hill stations [illegible] broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during [illegible] 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 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.

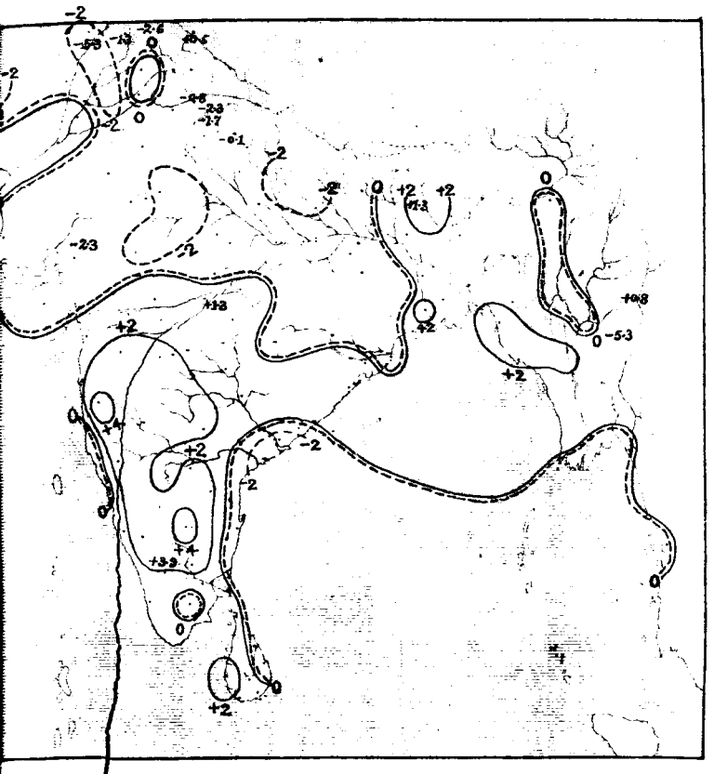
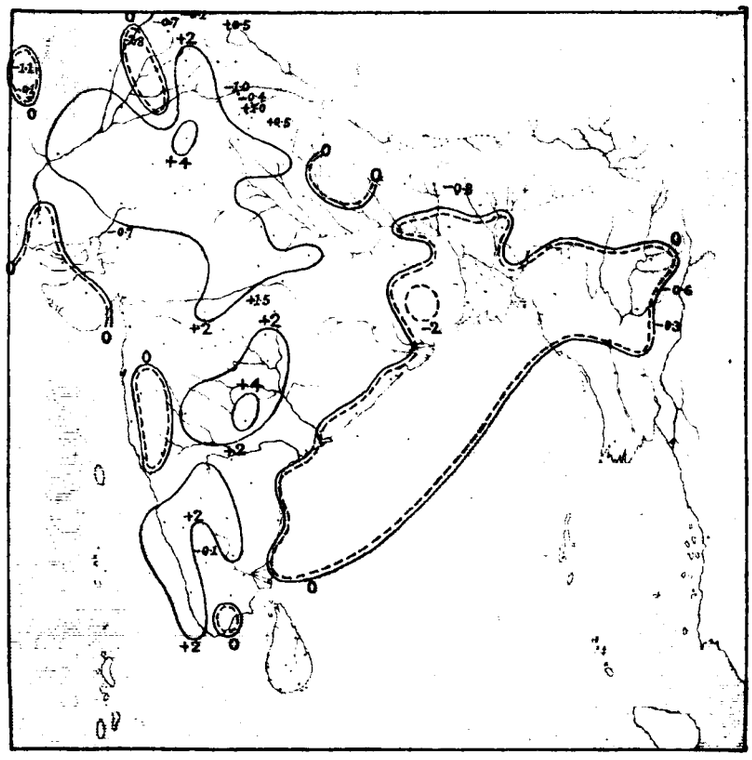


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



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 the 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 the 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.

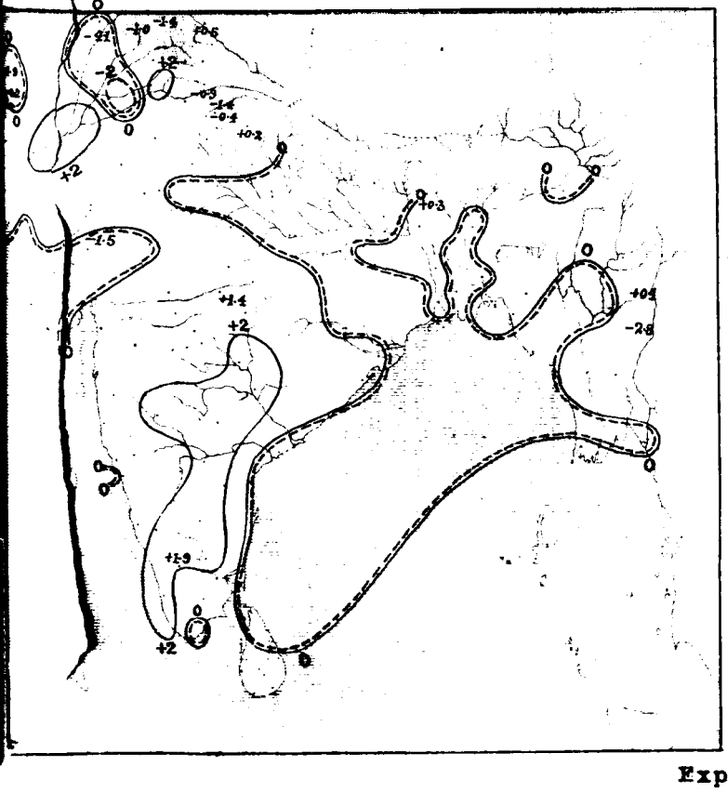
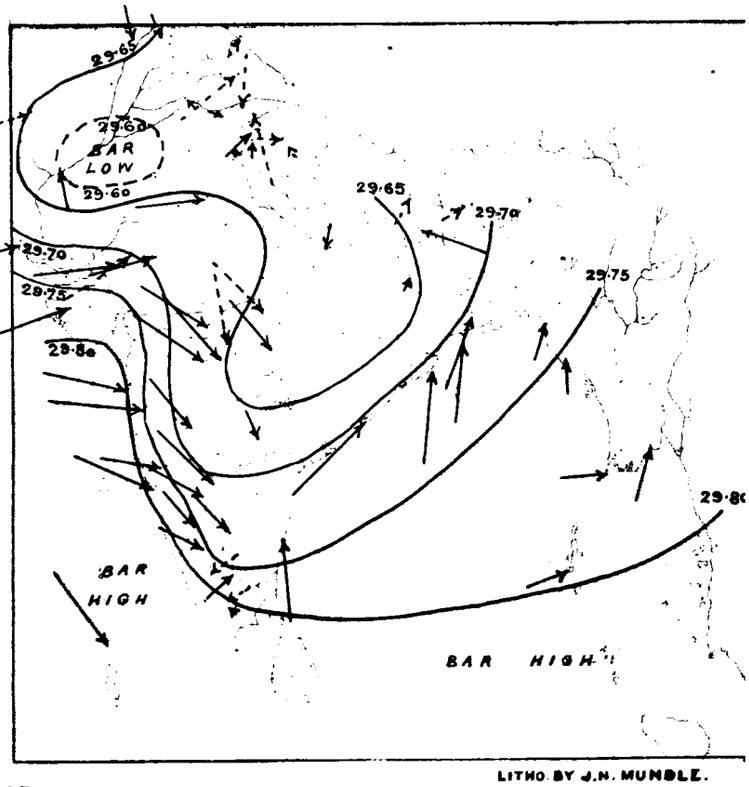


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF MAY 1900



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 the 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 have hitherto appeared in the Annual Report, 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 8th of an inch being equal to 100 per cent.

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 (182 in number), except those at the Hill Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those 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 variations of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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. North Western Provinces, East
19. South Oudh
20. North do.
21. North Western 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. North Punjab
32. West do.
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
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. East Coast, North
52(a). Do. do. (a)
53. Hyderabad, South
54. Madras, Central
55. East Coast, Central
56. East Coast, South
57. Madras, South

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JUNE 1900.

INTRODUCTION.

THIS review of the weather in India during the month of June 1900 is based on observations taken daily at 8 A.M. at 219 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 weekly rainfall telegrams received during the month from District Officers throughout India, 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 June, 1900.

The following is a brief sketch of the chief features of the meteorology of the month.

The principal abnormal features of the weather were the delay in the setting in of the monsoon along the West Coast; the weakness of the Arabian Sea monsoon—a condition which prevented the extension of the current to the northward of Bombay, and finally what was directly connected with this condition of the monsoon, the unusual course of the cyclonic storms of the Bay whereby the rainfall of the Bay monsoon current was determined to North-East India.

At the commencement of the month pressure was low over the west of the Bay and the east of the Peninsula, so that southerly and south-easterly winds were determined to Burma, North-East India and the Gangetic Plain. These winds were accompanied with numerous thundershowers which, though not heavy except in parts of Assam and Bengal, were sufficient to considerably reduce temperature over the regions in which they occurred. At the same time a small depression or storm was shown over the north-west of the Punjab and this storm had occasioned rain over the North-West Himalayas and part of the Punjab. This rainfall was succeeded by a wave of low temperature which advanced from west to east across Northern India. Under the operation of these two actions the mean temperature of a large part of Northern India was reduced to below the normal. The following gives temperature variation data for the different

divisions of Northern India from the 1st to the 6th in illustration :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	1st June.	2nd June.	3rd June.	4th June.	5th June.	6th June.
	°	°	°	°	°	°
Punjab	+3·9	−0·5	−2·0	−0·9	−0·1	+1·0
Rajputana	+1·3	+1·9	+0·4	+2·0	+2·6	+2·7
Central India	+3·3	+1·4	+1·4	+1·0	+2·1	+3·5
N.-W.P. and Oudh	+6·1	+2·2	−4·8	−7·2	−3·7	−1·7
Chota Nagpur	+5·0	+4·2	−4·3	−3·8	−1·0	+0·8
Orissa	+1·1	+3·6	−3·6	−1·2	+0·2	+1·3
Bengal	−0·1	−3·3	−4·6	+0·7	+2·4	+2·3
Bihar	−0·5	−4·1	−4·1	−1·6	+2·8	+3·3

During the same time the presence of a low pressure area over the west of the Bay drew the wind into north-west over the Peninsula, so that dry, hot weather was reported in the Peninsular divisions. The following gives temperature variation data for this period :—

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

On the 7th the low pressures were established in Northern India and the winds had returned to westerly directions over the Peninsula. From the 7th to the 11th there was general rain in Burma and some thunder-showers along the West Coast, but in general the weather was fine and the heat was excessive practically throughout the whole Indian area. The following gives the average temperature variation data of the whole country for the five days from the 7th to the 11th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	7th June.	8th June.	9th June.	10th June.	11th June.
	°	°	°	°	°
Burma	+1·6	+0·6	+0·2	+0·9	+0·3
Assam	+1·8	+0·4	+1·6	+3·1	+4·7
Bengal	+1·9	+3·0	+2·4	+3·1	+4·0
Orissa	+1·3	+2·3	+3·2	+1·9	+1·3
Bihar	+4·9	+3·6	+2·9	+4·3	+6·5
Chota Nagpur	+2·0	+1·5	+1·0	+2·3	+3·5
North-Western Provinces and Oudh.	+2·0	+3·9	+4·1	+1·8	+5·0
Punjab	+3·5	+3·3	+1·5	+3·3	+4·1
Sind	+4·2	+3·5	+2·8	+3·6	+7·0
Rajputana	+3·7	+3·8	+1·8	+4·1	+6·3
Gujarat	+1·6	+0·6	+1·0	+1·9	+3·7
Central India	+3·8	+4·8	+3·0	+4·1	+6·6
Central Provinces	+5·7	+5·0	+4·4	+5·2	+5·3
Berar	+1·5	+1·5	+1·3	+7·1	+3·1
West Coast	+4·1	+4·2	+2·9	+2·2	+2·0
Bombay Deccan	+5·2	+5·3	+1·9	+1·3	+2·8
Mysore	+2·3	+3·4	+3·8	+3·1	+3·1
Madras Coast	+2·1	+2·5	+2·2	+1·9	+3·1
Madras Deccan	+5·7	+3·9	+3·3	+3·0	+3·7
South India	+2·3	+3·9	+4·1	+3·0	+2·6

The maximum temperatures of the month in the Peninsula were recorded during the first eleven days of the month. The following gives some of the more noteworthy temperatures recorded in the south during this period :—

Station.	Highest maximum temperature recorded in June 1900.	Date on which recorded.
	°	
Nellore	114·8	3rd
Chanda	114·7	1st
Nagpur	112·7	4th
Akola	112·6	6th
Hoshangabad	112·0	6th
Raipur	112·0	1st
Hanamconda	111·7	4th
Indur	111·4	1st

STATION.	Highest maximum temperature recorded in June 1900.	Date on which recorded.
	°	
Cuddapah	111·3	3rd and 4th
Kurnool	111·3	4th
Sambalpur	111·1	3rd
Amraoti	110·9	6th
Secunderabad	110·8	1st
Khandwa	110·7	6th
Vellore	110·3	4th
Masulipatam	110·2	3rd
Madras	110·0	4th

On the 11th a change commenced on both sides of India. The wind shifted to the southward along the West Coast and the first advance of the monsoon commenced in Malabar on the following days. This advance was not very strong, but the rainfall became fairly heavy on the Konkan Coast between the 16th and the 20th. The following gives average rainfall data for the coast districts of Malabar, South Canara, North Kanara, and Ratnagiri for each day from the 12th to the 20th, showing the advance of the monsoon up the coast:—

DISTRICT.	AVERAGE ACTUAL RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF									Total of period 12th to 20th June.
	12th June.	13th June.	14th June.	15th June.	16th June.	17th June.	18th June.	19th June.	20th June.	
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Malabar	1·46	1·73	1·23	0·98	2·65	3·19	3·16	0·74	1·25	16·39
South Canara	3·28	1·49	0·53	1·94	3·12	3·20	5·52	3·10	1·01	23·19
North Kanara	1·00	1·30	0·91	1·88	2·15	2·26	2·01	2·42	2·34	16·27
Ratnagiri	0·01	1·05	1·07	1·17	0·75	0·85	0·54	0·29	0·12	5·85

On the opposite side of India the changes were larger and more important. A cyclonic storm formed over the Bay on the 10th and 11th. The centre crossed the coast in Orissa and travelled along a curved path which led it through the eastern districts of the Central Provinces and Chota Nagpur into Central Bengal where it filled up on the 16th. It gave a heavy burst of rain to the districts through which it passed, more especially to North and Central Bengal. The following are the principal large amounts in 24 hours which were recorded during this burst:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
ORISSA TRIBUTARY MAHALS.	Bispara	12th June	7·00
PURI	Satpara	" "	6·20
24-PARGANAS	Saugor Island	" "	5·73
BALASORE	Chandbali	" "	5·55
PURI	Nayagarh	" "	5·28
BALASORE	Soro	" "	5·15
PURI	Bhanpur	" "	5·08
ORISSA TRIBUTARY MAHALS.	Kunjabangarh	13th "	5·54
DARJEELING	Mungpoo	" "	5·53
PATNA	Hilsa	" "	5·50
SAMBALPUR	Sambalpur	" "	3·80
RAIPUR	Dhamtari	" "	3·80
DARJEELING	Darjeeling	14th "	7·20
DO.	Mungpoo	" "	6·61
DARBHANGA	Rosera	" "	6·40
SONTHAL PARGANAS	Sahibganj	" "	6·08
PATNA	Hilsa	" "	5·50
DO.	Barli	" "	5·20
DO.	Bihar	" "	5·10
NOAKHALI	Noakhali	" "	5·06
RAIPUR	Raipur	" "	3·50
SAMBALPUR	Sambalpur	" "	2·90
BHAGALPUR	Bongaon	15th "	6·40
DARJEELING	Darjeeling	" "	6·33
SONTHAL PARGANAS	Godda	" "	6·30
BHAGALPUR	Bhagalpur	" "	6·23
MONGHYR	Gogri	" "	6·20
CHITTAGONG	Codala	" "	5·89
MONGHYR	Jamalpur	" "	5·88
DO.	Begusarai	" "	5·84
FARIDPUR	Faridpur	" "	5·54
RANGPUR	Ulipur	" "	5·48
GAYA	Pakri Barawan	" "	5·30
NOAKHALI	Noakhali	" "	5·18
DARBHANGA	Madhobani	" "	5·11
BHAGALPUR	Supaul	" "	5·11
MYMENSINGH	Atia	" "	5·07
DARBHANGA	Darbhanga	" "	5·07
DO.	Bahera	" "	5·00
HAZARIBAGH	Karagdeha	" "	5·00

This rainfall naturally occasioned a large reduction of temperature over North-Eastern India. The following gives temperature variation data for the Madras Coast, Orissa and the Bengal districts from the 11th to the 19th and exhibits the extension of the low temperatures with the extension of rainfall :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of								
	11th June.	12th June.	13th June.	14th June.	15th June.	16th June.	17th June.	18th June.	19th June.
	°	°	°	°	°	°	°	°	°
Madras Coast	+3·1	—1·9	—0·4	+1·5	— 4·1	+4·2	+2·4	+2·6	+3·4
Orissa	+1·3	—3·8	—4·4	—2·9	— 0·1	+2·4	+4·8	+5·8	+5·7
Bengal	+4·0	+2·0	—1·4	—2·9	— 3·5	—4·7	—0·1	+0·1	—1·0
Bihar	+6·5	+5·5	+0·4	—8·4	—10·7	—5·4	—0·9	+0·1	+1·0
Chota Nagpur	+3·5	+0·5	—8·2	—9·1	—10·3	—1·0	+4·7	+4·7	+4·6

This rainfall did not affect North-West India and only slightly affected the central parts of the country. In consequence the heat remained generally excessive over those two regions. The following gives temperature variation data for North-Western and Central India from the 12th to the 19th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	12th June.	13th June.	14th June.	15th June.	16th June.	17th June.	18th June.	19th June.
	°	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	+5·6	+3·6	— 3·2	—0·5	+4·1	+4·3	+3·3	+3·6
Punjab	+5·2	+7·2	+ 2·7	+1·5	+4·3	+1·5	—0·3	+2·1
Central Provinces	+4·2	+2·3	+ 1·3	+5·6	+6·7	+5·8	+7·0	+7·5
Berar	+4·2	+4·9	+ 5·9	+7·3	+8·2	+7·3	+8·1	+7·4
Central India	+7·3	+5.9	+ 4·0	+4·9	+6·3	+5·2	+5·2	+4·0
Rajputana	+9·0	+9·6	+10·1	+5·9	+5·4	+5·2	+5·2	+5·3
Gujarat	+4·9	+6·7	+ 5·1	+3·5	+1·8	+3·4	+3·5	+4·7
Sind	+5·1	+5·3	+ 6·4	+5·3	+4·2	+4·6	+4·6	+3·9

On the 19th the effects of the rainfall were rapidly disappearing from the north-east, while the rainfall was diminishing quickly along the West Coast, so that on the 20th, 21st, and 22nd the mean temperature was again excessive practically throughout the whole country. This is shown below :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	20th June.	21st June.	22nd June.
	°	°	°
Burma	+1·9	+0·8	+0·3
Assam	+1·0	+2·9	+3·4
Bengal	+1·4	+2·3	+1·6
Orissa	+0·8	+2·5	+0·2
Bihar	+0·7	+1·9	+0·9
Chota Nagpur	+5·3	+3·7	+2·7
North-Western Provinces and Oudh	+4·9	+6·2	+2·3
Punjab	+6·0	+8·7	+8·5
Sind	+3·6	+2·9	+1·2
Rajputana	+5·0	+6·4	+5·4
Gujarat	+4·5	+4·2	+3·8
Central India	+5·9	+8·3	+7·4
Central Provinces	+8·8	+6·8	+5·7
Berar	+5·8	+4·2	+2·5
West Coast	0	—0·1	+0·2
Bombay Deccan	+3·6	+2·9	+2·6
Mysore	+3·0	+3·6	+1·5
Madras Coast	+4·5	+2·8	+0·7
Madras Deccan	+2·5	+2·0	—1·7
South India	+1·0	+1·6	+0·2

The excess was very large in the Punjab and the highest temperatures of the month in North-West India and in parts of Central India were recorded at this time. The following gives the highest readings (exceeding 112°) :—

Station	Highest maximum temperature recorded in June 1900.	Date on which recorded.
	°	
Lahore	118·6	21st
Khushab	118·4	22nd
Sialkot	117·5	21st and 22nd
Dera Ismail Khan	117·2	20th, 21st and 22nd
Rawalpindi	116·5	21st
Peshawar	115·5	22nd
Ludhiana	114·4	13th and 22nd

On the 23rd or 24th the monsoon strengthened along the West Coast and another burst of rainfall occurred in

Malabar and extended northward as far as Bombay, though it never passed that port in any appreciable quantity. The following gives the average rainfall, day by day, for the coast districts from Malabar to Thana for the period June 24th to 30th :—

DISTRICT.	AVERAGE ACTUAL RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF						
	24th June.	25th June.	26th June.	27th June.	28th June.	29th June.	30th June.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Malabar .	4·72	3·10	1·43	1·38	1·28	1·44	1·20
South Canara .	1·33	3·51	1·78	2·85	3·88	1·19	1·74
North Kanara .	1·35	1·62	1·63	1·81	3·72	2·62	2·88
Savantvadi .	2·83	5·50	1·36	2·06	3·52	2·04	2·23
Ratnagiri .	1·31	2·41	2·30	1·85	5·69	1·99	1·69
Kolaba . .	0·84	1·78	1·36	1·39	2·20	0·86	0·40
Thana . .	0·29	1·77	1·92	0·25	2·12	0·93	0·02

This rainfall also extended into the interior of the Peninsula. Mysore, the Deccan, and the Central Provinces consequently received light to moderate rain, and the mean temperature was reduced to below the normal in some divisions. The following gives temperature variation data for the Peninsular divisions from the 24th to the 30th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	24th June.	25th June	26th June.	27th June.	28th June.	29th June.	30th June.
	°	°	°	°	°	°	°
Central Provinces . . .	+1·3	+2·3	+1·0	+2·4	+4·6	+6·5	+8·3
Berar	+2·3	+0·8	+0·5	+1·1	+2·8	+4·1	+6·2
West Coast	—0·9	—3·1	—2·4	—1·2	—1·3	—0·8	—0·2
Bombay Deccan . . .	+3·3	+1·0	—2·0	—0·2	—0·2	—0·9	+1·6
Mysore	+0·2	—1·7	—0·5	—2·0	—1·5	—2·4	—1·1
Madras Coast . . .	—1·4	—2·3	—0·1	+1·8	+1·4	+0·3	+1·2
Madras Deccan . . .	—0·1	—2·5	—1·8	+0·7	+0·4	—0·3	+0·5
South India	—0·1	—4·0	—2·2	—0·7	+0·5	+1·1	+0·5

Fine, dry weather prevailed over North-East India from the 20th to the 23rd, but on the latter date a small depression was developing over the north-west angle of the Bay. This storm passed northward into Bengal and gave heavy rain—in South Bengal till the 27th, and in East and North Bengal till the end of the month. The falls in 24 hours were heavy to very heavy in East and North Bengal on the last days of the month, as will be seen below :—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JALPAIGURI . .	Alipore Duar . .	25th June .	5·49
DINAJPUR . .	Setabganj . .	26th ,, .	9·50
MYMENSINGH . .	Netrokona . .	,, ,, .	6·75
NOAKHALI . .	Harishpur . .	,, ,, .	6·33
MYMENSINGH . .	Durgapur . .	,, ,, .	6·20
DACCA . . .	Kishorganj . .	,, ,, .	5·99
NOAKHALI . .	Ramganj . .	,, ,, .	5·60
BACKERGUNGE .	Doulatkhan . .	,, ,, .	5·17
,, .	Bauphal . .	,, ,, .	5·10
RANGPUR . .	Peerganj . .	27th ,, .	8·07
DINAJPUR . .	Ramganj . .	,, ,, .	8·02
,, . .	Nowabganj . .	,, ,, .	7·80
,, . .	Dinajpur . .	,, ,, .	7·80
BOGRA . . .	Sherpur . .	,, ,, .	6·82
CHITTAGONG . .	Kutubdia . .	,, ,, .	5·13
,, . .	Fenoa . . .	28th ,, .	8·58
MYMENSINGH .	Diwanganj . .	,, ,, .	6·50
DINAJPUR . .	Raiganj . .	,, ,, .	5·47
NOAKHALI . .	Chhagalnaya . .	,, ,, .	5·24
CHITTAGONG . .	Chittagong . .	,, ,, .	5·08
,, . .	Mirsarai . .	29th ,, .	15·18
NOAKHALI . .	Chhagalnaya . .	,, ,, .	5·44
,, . .	Noakhali . .	,, ,, .	5·28
,, . .	Fenny . . .	,, ,, .	5·15
MYMENSINGH .	Netrokona . .	30th ,, .	13·90
,, .	Mymensingh . .	,, ,, .	9·05
,, .	Durgapur . .	,, ,, .	6·30

The rainfall reduced temperature to below the normal all over North-East India, but when the rainfall ceased, in Orissa and South Bengal on the 27th, there occurred a marked increase of temperature in those areas. The following shows the temperature variation data from the 24th to the 30th for the Bengal divisions :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	24th June.	25th June.	26th June.	27th June.	28th June.	29th June.	30th June.
	°	°	°	°	°	°	°
Orissa	—1·9	—2·5	—2·6	—1·3	—0·1	+4·2	+5·0
Bengal	+0·2	—0·6	—2·4	—2·5	—1·1	—0·3	+0·3
Chota Nagpur . . .	—1·5	—2·7	—2·0	—0·4	—0·9	+1·3	+3·2
Bihar	—1·3	—0·3	—1·3	—2·0	—2·7	—2·0	—0·7

Quiet weather prevailed over North-West and Central India during the last week of the month. The mean temperature was unsteady in the Punjab, but was steadily excessive elsewhere. The following gives temperature variation data from the 24th to the 30th for the north-western and central divisions :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	24th June.	25th June.	26th June.	27th June.	28th June.	29th June.	30th June.
	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	−2·8	+0·7	+2·3	+1·5	+3·6	+ 6·8	+ 8·2
Punjab	−1·3	+0·5	+0·9	+0·2	+4·2	+ 5·8	+ 8·4
Rajputana	+4·6	+4·6	+3·4	+5·1	+5·9	+ 7·5	+ 8·5
Gujarat	+3·3	+3·9	+2·9	+4·2	+4·9	+ 3·4	+ 3·1
Sind	+1·5	+1·2	+2·3	+1·1	+1·6	+ 1·1	+ 1·4
Central Provinces	+1·3	+2·3	+1·0	+2·4	+4·6	+ 6·5	+ 8·3
Central India	+5·6	+5·8	+4·6	+5·5	+8·5	+10·2	+11·2
Berar	+2·3	+0·8	+0·5	+1·1	+2·8	+ 4·1	+ 6·2

Pressure.—The mean pressure of the Indian land area for the month of June was exactly normal. There was a slight excess of pressure along the foot of the hills as well as over North Bombay, the Central Provinces and the western half of the Peninsula. There was slight defect over the Western Desert, the south of the Gangetic Plain, the eastern half of the Peninsula and the greater part of North-East India and Burma. The deficiency was greatest and about 0·02″ in South Bengal and Orissa. The vertical pressure anomalies were positive, except at Mount Abu and Wellington, where they were negative, but slight. Pressure was higher than usual in the south-east trades region as well as at the Arabian and Persian stations.

The following gives the mean pressure variations and anomalies of the eleven meteorological provinces :—

Meteorological Province.	Variation from normal of mean 8 A.M. pressure of June 1900.
	″
Burma Coast and Bay Islands	−·014
Burma Inland	+·005
Assam	−·011
Bengal and Orissa	−·014
Gangetic Plain and Chota Nagpur	+·003
Upper Sub-Himalayas	+·001
Indus Valley and North-West Rajputana	+·002
East Rajputana, Central India, and Gujarat	+·007
Deccan	+·004
West Coast	+·013
South India	0

Temperature.—The rainfall during the month had been heavier than usual in parts of North-East India, and had kept the weather cool. It had been about the normal over the west of the Peninsula where the heat was consequently about the average. Elsewhere the rainfall had been scanty and the temperature higher than usual.

The mean maximum temperature of the month was lower than usual over the greater part of Bengal and at a few stations in Assam, Burma, the south of the Peninsula, the east of Ceylon and the west of the Peninsula. The deficiency was small, except at Purnea (−2°·2), Patna (−2°·1) and Burdwan (−2°·1). Over the whole of the remainder of India the maximum temperature was in excess, the variation having been large over the central parts of the country and North Sind. The excess was over 8° at Seoni (+8°·3), Hoshangabad (+8°·2) and Jubbulpore (+8°·1), and over 7° at Indore (+7°·3), Nagpur (+7°·8), Sutna (+7°·2), Bhavnagar Para (+7°·6), and Ahmedabad (+7°·4).

Very hot and dry periods occurred over North-Western and Central India on the 13th and 14th and between the 20th and 23rd when the maxima were between 10° and 15° above the normal.

The mean night or minimum temperatures were about normal over Upper Burma, North-East India and the south of the Peninsula, but were considerably to largely above the normal over Central and North-West India. The excess was 5° or more at Sutna (+5°·5), Saugor (+5°·0), Jhansi (+5°·3), Ajmer (+5°·3), Jaipur (+5°·1), Bikaner (+6°·7), Mooltan (+6°·4), and Sialkot (+5°·6).

The mean temperature of the month was slightly below the normal in parts of Bengal, Burdwan reporting a deficiency of 1°·2 and Purnea of 1°·0. The mean temperature was about normal over the greater part of Burma and North-East India and of the west of the Peninsula. It was in excess of the normal over the remainder of India. The excess was greatest at Jubbulpore (+6°·4), Amraoti (+6°·6), and Sutna (+6°·4). In Baluchistan and Kashmir the temperature, on the mean of the month, was less than usual but at the remaining hill stations it was more or less above the average.

The following table gives temperature variation data for the month for the eleven meteorological provinces of India :—

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, June 1900.	Mean minimum temperature, June 1900.	Mean daily temperature, June 1900.
	°	°	°
Burma Coast and Bay Islands	+0·5	+1·3	+0·9
Burma Inland	+0·5	+0·6	+0·5
Assam	+0·7	+0·3	+0·5
Bengal and Orissa	—0·1	+0·4	+0·1
Gangetic Plain and Chota Nagpur.	+0·7	+1·1	+0·9
Upper Sub-Himalayas	+2·7	+3·0	+2·9
Indus Valley and North-West Rajputana.	+3·4	+2·7	+3·1
East Rajputana, Central India and Gujarat	+4·6	+3·1	+3·8
Deccan	+5·6	+2·4	+4·0
West Coast	+1·2	+1·0	+1·1
South India	+1·9	+1·1	+1·6

Winds.—The winds were very strong at the Bay Islands and were slightly stronger than usual on the Burma Coast. They were, on the contrary, lighter and more unsteady than usual in Bengal, where the directions varied irregularly from the normal. In North-West India the wind was generally steadier than usual, but the velocity was normal or below the normal except in Rajputana. Over the Peninsula the winds were generally stronger and steadier than usual, but along the West Coast the velocity was relatively low. The wind direction was nearly normal, but was somewhat more westerly than the average in the Bombay Deccan, the West Coast, and the Madras Coast.

Humidity.—The humidity on the mean of the month was about normal over the greater part of Burma, on the coasts of the Peninsula and in North-East India, but owing to the anomalous features of the rainfall distribution the mean humidity was in moderate to considerable defect over the remainder of India. The deficiency was greatest and more than 10°/₀ in the East Punjab (Ludhiana —12°/₀), the east of Rajputana (Jaipur —13°/₀) and the Central Provinces (Nagpur —11°/₀, Khandwa —11°/₀, and Buldana —14°/₀).

The following table gives variation data of the mean aqueous vapour pressure and mean humidity for nine meteorological provinces for the month of June 1900 :—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, June 1900.	Variation of actual from normal, June 1900.	Average actual, June 1900.	Variation of actual from normal, June 1900.
	"	"	%	
Burma Coast and Bay Islands.	·930	+·028	86	—1
Bengal and Orissa	·972	+·024	83	—1
Gangetic Plain and Chota Nagpur.	·783	—·008	62	—4
Upper Sub-Himalayas	·598	—·056	43	—8
Indus Valley and North-West Rajputana.	·728	+·015	47	—4
East Rajputana, Central India and Gujarat.	·638	—·062	42	—10
Deccan	·647	—·038	57	—8
West Coast	·878	—·009	79	—4
South India	·665	—·008	66	—4

Cloud.—The sky was more covered with cloud than usual over the Bay Islands, Burma, the greater part of Bengal, and a considerable part of Madras. Within this large area of increased cloudiness the variations were generally small, but were +1·0 or more at Bellary (+1·0), Chittagong (+1·3), Hazaribagh (+1·3), and Mysore (+1·6). Cloud was in defect of the normal over the remainder of India. The mean cloud amount of the month was more than 1·0 below the normal over the whole of North-West India, except the Indus Valley, and was more than 2·0 below the normal at Lahore (—2·7), Ludhiana (—2·3), Kurrachee (—2·4), Jaipur (—2·8), and Deesa (—3·4). At all the hill stations, except Wellington, the cloud amount was below the normal. The mean cloud amount of the month was less than 1·0 at Lahore, Ludhiana, and Jacobabad.

The following table gives variation data of the mean cloud amount of nine meteorological provinces for the month of June 1900 :—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, June 1900.	Variation of actual from normal, June 1900.
Burma Coast and Bay Islands	8·6	+0·6
Bengal and Orissa	7·6	+0·2
Gangetic Plain and Chota Nagpur	5·5	—0·1
Upper Sub-Himalayas	2·7	—0·7
Indus Valley and North-West Rajputana	1·4	—1·1
East Rajputana, Central India, and Gujarat.	1·7	—3·1
Deccan	6·0	—0·8
West Coast	7·0	—0·5
South India	7·7	+0·4

Rainfall.—The chief features connected with the rainfall distribution of the month were (1) the delay in the establishment of the Arabian Sea monsoon and the general weakness of this current whereby it never extended into North Bombay and North-West India, (2) the early and strong advance of the monsoon current over the Bay, and (3) the unusual tracks of the cyclonic storms which formed over the Bay and which advanced through north and north-east into Bengal. Rain commenced on the Malabar Coast on the 12th. The fall was heavy from the 16th to the 20th, but afterwards decreased and was light till the 23rd. On the 24th it recommenced and spread northward as far as Bombay, the fall continuing till the end of the month. Neither during this nor during the previous advance did any rainfall extend into Gujarat, Kathiawar, Central India, West Rajputana or the South Punjab, and the month's rainfall was practically *nil* over the whole of this large area. On the other hand during both advances of the monsoon the rainfall extended more or less into the interior of the Peninsula and into the Central Provinces.

Over the Bay area and North-East India the rainfall conditions were more satisfactory. A strong advance of monsoon winds accompanying the development of a cyclonic storm occurred over the Bay on the 10th and 11th, and a heavy burst of rain commenced over Orissa on the 12th. The storm passed from Orissa through the eastern districts of the Central Provinces and Chota Nagpur into Bengal, where it filled up on the 16th and heavy rain obtained over North-East India from the 12th to the 16th. A week of fine weather followed, but on the 23rd accompanying another storm rain recommenced on the Bengal Coasts. This rainfall extended, and continued in South Bengal till the 27th and in other parts of Bengal till the end of the month. In North-West India the weather became feebly unsettled at times and scattered showers fell during thunder and dust-storms in different parts of that area, but in general over the north of the Central Provinces, Central India, the North-West Provinces, Rajputana, the Punjab and Sind the month's rainfall was insignificant and no advance of monsoon winds was recorded right up to the close of the month.

The rainfall of the month was above the normal in six of the rainfall divisions, *viz.*, Lower Burma, Central Burma, Eastern Bengal, South Bihar, North Bihar and Mysore; it was normal in twelve divisions, *viz.*, Tenasserim, the Assam Hills, the Brahmaputra Valley, Deltaic Bengal, Central Bengal, North Bengal, Chota Nagpur, South-Central Madras, the Bombay Deccan, the north of the East Coast, Central Madras, and South Madras and was less than the normal in all the remaining divisions. The deficiency was greatest and very large over North Bombay, Central India, Rajputana, and part of the Punjab. The total rainfall of the month was less than 1 inch in amount in the western and central districts of the North-Western Provinces, the Submontane, South, North, Central and West Punjab, Rajputana, Central India West, North Bombay, and South Madras.

The following table gives rainfall data of the month for the eleven meteorological provinces:—

Meteorological Province.	Rainfall.			
	Mean actual for June 1900.	Mean normal for June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	27·95	27·32	+2·57*	+19
Burma Inland	9·13	8·35	+0·78	+9
Assam	18·11	19·65	−1·54	−8
Bengal and Orissa	14·11	13·65	+0·46	+3
Gangetic Plain and Chota Nagpur	6·07	6·58	−0·47*	−7
Upper Sub-Himalayas	1·43	3·65	−2·25*	−62
Indus Valley and North-West Rajputana	0·23	0·76	−0·53	−70
East Rajputana, Central India and Gujarat	0·40	4·49	−4·04*	−90
Deccan	4·76	6·46	−2·04*	−32
West Coast	32·59	27·73	+4·85	+17
South India	2·01	2·81	−0·76*	−27

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

Atmospheric Pressure.

The mean pressure of the Indian land area was exactly normal for the month of June.

The barometric variations were generally small. There was a slight excess of pressure along the foot of the hills as well as over North Bombay, the Central Provinces, and the western half of the Peninsula. The excess was more

than 0·02″ only at the stations for which comparative data are given below :—

STATION.	Variation from normal of mean 8 A.M. pressure of June 1900.
	″
Veraval	+·028
Bombay	+·021
Indore	+·021

Pressure was in slight defect of the normal over the Western Desert, the south of the Gangetic Plain, the eastern half of the Peninsula and the greater part of North-East India and of Burma. The deficiency was less than 0·02″, except at the following stations :—

STATION.		Variation from normal of mean 8 A.M. pressure of June 1900.
		″
BENGAL	Jessore	—·024
	False Point	—·023
	Cuttack	—·023
	Mymensingh	—·021
	Saugor Island	—·020
BURMA	Tavoy	—·021

The general distribution of pressure on the mean of the month was approximately normal. Pressure was lowest over the Punjab and the Western Desert, relatively low within a broad band running from the Punjab south-eastward to the head of the Bay and was highest in Malabar, Ceylon and Tenasserim.

Pressure was about normal at the hill stations of Mount Abu and Wellington, but was slightly above the normal at the central hill station of Pachmarhi and moderately above the normal at the hill stations in the Himalayas and Baluchistan. The vertical pressure anomalies were hence positive, except at the two stations, Mount Abu and Wellington, where they were negative but slight. These conditions are shown in the following table giving data for ten pairs of stations :—

HILL STATION.	Variation of actual from normal pressure, June 1900.	PLAIN STATION.	Variation of actual from normal pressure, June 1900.	Vertical pressure anomaly (Hill-Plain).
	″		″	″
Quetta	+·040	Jacobabad	—·005	+·045
Murree	+·051	Rawalpindi	+·007	+·044
Leh	+·048	Sialkot	+·001	+·047
Simla	+·035	Ludhiana	—·019	+·054
Chakrata	+·066	Roorkee	+·009	+·057
Ranikhet	+·037	Bareilly	+·012	+·025
Darjeeling	+·038	Dhubri	—·012	+·050
Pachmarhi	+·023	Seoni	+·008	+·015
Mount Abu	+·001	Deesa	+·015	—·014
Wellington	+·002	Coimbatore	+·009	—·007

The pressure on the mean of the month was higher than usual at Aden, Perim, Zanzibar and the Seychelles, the excess having been greatest and considerable in Southern Arabia. Pressure was also higher than usual at most of the Persian stations.

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

(1) Pressure was generally above the normal over Western India as well as on, and along the foot of, the Himalayas.

(2) Pressure was generally below the normal over Burma, North-East India, the east of the Peninsula as well as within a narrow band running from West Bengal north-westward to the Indus.

(3) The variations were generally small, but exceeded 0·20″ at the head of the Bay (False Point —0·023″) and on the North Bombay coast (Veraval +0·028″).

(4) The vertical pressure anomalies were positive over the Himalayan and Baluchistan areas.

Barometric depressions and cyclonic storms of the month.

At the commencement of the month pressure was increasing everywhere and was in considerable excess on the Bombay Coast, though it was in defect over the Gangetic Plain and West and South-West Bengal. South-

west winds were increasing in Ceylon with light rain. The conditions were consequently unfavourable for the early establishment of the monsoon along the West Coast, but were, on the other hand, favourable for an advance over the south of the Bay.

June 2nd.—On the 2nd a further increase in the force of wind occurred in Ceylon at the same time that the barometer commenced to fall over that Island and the south of the Peninsula. Over the north of the Peninsula and the whole of Northern India pressure was increasing slightly to rapidly. The winds varied between south and south-west over the Bay, but were falling lighter and were about normal in force. The following gives marine data for the 2nd over the Bay :—

Name of Vessel.	8 A.M. Position.		Barometer as corrected by the Calcutta Office.	Wind.		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S. S. *Chindwara*	9 10	81 10	29·690	SSW	6	
S. S. *Baron Cawdor*	10 49	84 41	...	SW	4	
S. S. *Sirsa*	13 22	84 40	29·628	SW	4	Cloudy, moderate following sea.
S. S. *Gaekwar*	13 43	85 22	...	SSW	6	Cloudy, head sea.
S. S. *Umballa*	15 18	94 17	29·770	WNW	4	Showery.
S. S. *Maharani*	15 47	94 24	·779	var.	1	Fine and clear.
S. S. *Java*	15 50	93 44	·716	ENE	2	Cloudy.
S. S. *Deepdale*	16 12	83 42	·629	SE	4	4 P.M. hazy
S. S. *Loch Lintrathen*	16 21	93 40*	...	Var.	2	Noon, cloudy.
S. S. *Workman*	17 17	86 40	...	S	4	8 P.M. rainy.
S. S. *Kangra*	18 26	86 44	·672	S	4	Moderate sea and cloudy.
S. S. *Bancoora*	18 34	90 41	·729	NE	2	Slight swell, fine.
S. S. *Clan Farquhar*	18 43	85 01	·657	SW	4	Cloudy, noon hazy.
S. S. *Sheikh*	18 45	87 00	·656	Var.	2	Slight sea, cloudy.
S. S. *Shahzada*	19 25	90 01	·618	Var.	4	Heavy sea, 4 A.M. heavy rain squalls.
S. S. *Sui Sang*	19 53	89 04	·755	SE	5	Moderate sea and fine; midnight, rainy.
S. S. *Foreland*	20 06	87 43*	·685	S	4	Noon, overcast.
S. S. *Nevasa*	20 08	88 59	·672	S	4	Moderate sea and fine.
S. S. *Kasara*	Akyab		·692	...	...	

* Noon position.

The above shows light to moderate south (south-west to south-east) winds throughout the Bay with fair weather, except in the east, where there were some showers and squalls.

The following gives 8 A.M. data for the coast stations around the Bay :—

Station.	Pressure.			Wind.				Remarks.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	″	″	″				Inches	
Port Blair	29·821	+·064	+·064	WNW	11	9	1·48	Drizzling.
Cocos Island	·831	+·039	...	SSW	...	10	0·17	
Diamond Island.	·750	+·010	+·026	E	2	3	...	
Bassein	·751	+·017	+·025	SE	2	3	1·10	
Akyab	·763	+·067	+·078	ENE	2	5	...	
Chittagong	·748	+·097	+·084	NE	7	10	0·50	
Calcutta	·694	+·125	+·107	ESE	11	10	0·13	Nor'-wester with rain.
Saugor Island.	·657	+·067	+·067	S	22	10	0·10	Distant lightning.
Balasore	·652	+·078	+·079	SSW	10	9	0·05	
False Point	·684	+·091	+·091	SE	16	10	...	Dust-haze.
Cuttack	·656	+·082	+·073	S	6	9	...	
Gopalpur	·613	+·025	—·010?	SW	24	0	...	Strong wind.
Waltair	·623	—·005	+·012	SW	14	5	...	Sea smooth.
Cocanada	·634	—·008	+·001	SW	7	1	...	
Masulipatam	·650	+·005	+·014	SSW	8	5	...	
Nellore	·653	—·008	—·020	WNW	8	5	...	
Madras	·673	—·020	—·027	WSW	10	0	...	Slight sea.
Cuddalore	·698	—·029	—·090	SSW	4	4	...	

The only important features in the above observations were the considerable excess of pressure in the north and the slight deficiency over the south-west of the Bay. As mentioned above, the barometer was rising in the north and falling in the south, so that the current changes tended to emphasize these abnormal features.

June 3rd.—Pressure was increasing everywhere, but while the change had been brisk to rapid over the whole of Northern India and the north of the Bay, it had been slight over the Peninsula and the south of the Bay. As a consequence of these changes a slight, shallow depression had been developed over and near the Coromandel

coast. The following gives the marine observations on this day :—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	Long. E.	Barometer as corrected by the Calcutta Office.	WIND. Direction.	Force.	WEATHER.
	° ′	° ′	″			
S. S. *Baron Cawdor*	8 11	83 12	...	S W	4	
S. S. *Obra*	9 39	87 12	29·712	S	4	4 A.M. lightning.
S. S. *Gaekwar*	10 17	83 46	...	S S W	6	Head sea.
S. S. *Loch Lintrathen*	14 37	92 14	...	S W	5	Heavy rain.
S. S. *Rajpootana*	Masulipatam		·690	S	4	
S. S. *Sirsa*	16 12	86 07	·749	E S E	5	Dull sea ; light rain.
S. S. *Umballa*	16 30	91 44	·743	W	1	Overcast ; 4 A.M. rain squalls.
S. S. *Sui Sang*	17 01	91 17	·805	Var.	2	Hazy.
S. S. *Shahzada*	17 04	92 50	818	S S W	2	Slight rain.
S. S. *Bancoora*	17 08	87 57	·701	S W	2	High N. swell, Overcast.
S. S. *Kangra*	17 13	89 27	·709	S	4	Moderate sea ; fine ; 4 A.M. heavy rain.
S. S. *Nevasa*	17 21	92 01	·733	S	2	Cloudy.
S. S. *Foreland*	17 33	86 28	·665	S E	4	Confused sea cloudy.
S. S. *Java*	18 25	90 51	·727	S	2	Fine.
S. S. *Deepdale*	18 26	85 40	·689	E S E	5	Confused sea ; cloudy.
S. S. *Rajah*	19 11	85 49	·685	S S W	2	
S. S. *Husara*	19 27	90 09*	·774	S W	2	S. W. swell.
S. S. *Kasara*	Akyab		·737	...	...	
S. S. *Workman*	21 20	87 48	...	E S E	2	Fine.

* Noon position.

The only important change disclosed by these observations was the shift of wind to the eastward (south-east and north-east) over the north and north-west of the Bay, due to the presence of the shallow depression off the Coromandel coast. The force of the wind had fallen and averaged only 3·0, which was 1·0 below the normal.

The following gives the 8 A. M. observations recorded at the coast stations around the Bay :—

STATION.	PRESSURE. 8 A. M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A. M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	″	″	″				Inches	
Diamond Island.	29·795	+·045	+·076	NNE	3	8	0·22	Showery.
Akyab	·808	+·045	+·130	E	2	2	...	
Chittagong.	·797	+·049	+·143	S E	5	4	...	
Calcutta	·773	+·079	+·194	E	7	0	1·32	Nor'-wester with rain.
Saugor Island	·753	+·096	+·171	ENE	14	1	0·96	Smooth sea.
Balasore	·778	+·126	+·211	Calm	7	7	1·88	
False Point.	29·752	+·068	+·163	ENE	13	6	0·10	Nor'-wester with rain.
Cuttack	·759	+·103	+·179	Calm	4	5	...	
Gopalpur	·723	+·110	+·100?	ENE	14	0	0·41	Dust storm with rain.
Waltair	·739	+·116	+·131	S	14	3	...	Smooth sea.
Cocanada	·742	+·108	+·118	NE	12	8	...	Slight sea.
Masulipatam	·727	+·077	+·092	SSE	8	1	...	
Nellore	·660	+·007	—·009	WNW	7	10	...	
Madras	·699	+·026	0	SSW	7	3	...	Sea smooth.
Cuddalore	·728	+·030	+·050	SSW	4	7	...	
Negapatam.	·755	+·037	+·028	SW	12	4	...	
Port Blair	·823	+·002	+·069	WNW	6	4	0·07	Cloudy.
Cocos Island*	·844	—·013	...	N	...	10	1·15	Cloudy.

* 10 A.M. observations.

The preceding observations show normal pressures on the Coromandel coast and more or less excessive pressures elsewhere. The depression over the south-west of the Bay was of very little consequence, and there was no rainfall in the neighbourhood of the disturbance.

June 4th.—The barometer had risen over the Bay area. The change had been brisk to rapid on the Coromandel coast, but very slight elsewhere, and as a consequence the depression over the south-west of the Bay had almost disappeared.

The following gives the marine data for this day :—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	Long. E.	Barometer as corrected by the Calcutta Office	WIND. Direction.	Force.	WEATHER.
	° ′	° ′	″			
S. S. *Loch Lintrathen*	12 43	89 24	...	SW	4	
S. S. *Rajpootana*	14 08	80 29*	29·732	SSE	2	
S. S. *Foreland*	14 09	84 55	·765	S	3	
S. S. *Sui Sang*	14 20	93 26	·855	WSW	4	Passing showers.
S. S. *Bancoora*	15 46	85 05	·774	S	2	Fine.
S. S. *Kangra*	16 02	92 11	·788	Var.	1	
S. S. *Husara*	17 09	88 44	·761	SW	2	Heavy swell.
S. S. *Rajah*	Vizagapatam		·775	W	2	
S. S. *Tokio*	18 16	86 50*	...	SSW	3	
S. S. *Baron Fairlie*	18 55	87 02*	·785	SSE	2	
S. S. *Kistna*	19 11	90 20	·778	SE	2	Overcast ; noon squally.
S. S. *Umballa*	19 44	89 07	·758	Calm	0	Noon cloudy.
S. S. *Deepdale*	20 18	87 12	...	NNE	2	Hazy.
S. S. *Karasolu*	21 35	90 53	·769	NE	2	Fine.
S. S. *Java*	21 36	88 32	·734	Calm	0	Fine.

* Noon position.

Moderate to fresh south-westerly to westerly winds prevailed over Ceylon and across the south and south-east of the Bay, but in the centre and north the pressure had become uniform and light southerly or variable winds were reported. The force of the wind had diminished and averaged only 2·8 for the whole Bay.

The following table gives the 8 A.M. observations for the coast stations of the Bay :—

Station.	Pressure.			Wind.				Remarks.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"				Inches	
Port Blair	29·829	+·006	+·079	WNW	6	5	0·13	Cloudy.
Cocos Island*	·834	—·010	...	W	...	10	0·71	
Diamond Island	·814	+·019	+·099	NW	3	8	0·10	Rainy.
Akyab	·810	+·002	+·140	E	2	10	...	
Chittagong	·790	—·007	+·142	ENE	3	3	...	
Barisal	·797	+·026	+·196	WNW	2	3	...	
Calcutta	·803	+·030	+·231	Calm	3	0	...	
Saugor Island	·787	+·034	+·210	S	5	7	...	Dust haze.
Balsore	·781	+·003	+·220	Calm	3	2	...	
False Point	·775	+·023	+·190	E	6	7	...	Wind variable.
Cuttack	·777	+·018	+·205	ENE	2	2	...	
Gopalpur	·779	+·056	+·159?	E	7	1	...	
Waltair	·776	+·037	+·175	W	13	10	1·48	Sea slight.
Cocanada	·773	+·031	+·157	NNW	11	10	0·04	Sea smooth.
Masulipatam	·780	+·053	+·146	SSE	11	10	0·01	Distant lightning.
Nellore	·769	+·109	+·101	WNW	9	8	...	
Madras	·750	+·051	+·053	S	8	3	...	Sea slight.
Cuddalore	·764	+·036	+·055	S	3	6	...	
Negapatam	·799	+·044	+·074	SW	5	6	...	
Trincomalee	·778	—·004	+·037	SW	18	3	...	

* 10 A.M. observations.

The above shows the same general characteristics as the observations of the 3rd, but on the Coromandel coast the pressure exhibited a moderate excess and the shallow depression had disappeared.

June 5th.—The observations of this day showed that pressure continued to increase on the Coromandel coast while it was steady elsewhere. Hence pressure had become still more uniform and the weather was very quiet with light southerly winds.

A shallow low pressure area was developing over the Western Desert on the 2nd drawing the winds into cyclonic directions over the Punjab, Rajputana and Sind. The winds were strong and squally and duststorms were reported, but there was no rain of any importance. The following gives 8 A.M. data for this area :—

Station.	Pressure.			Wind.				Remarks.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"					
Jacobabad	29·562	+·049	+·054	ESE	4	0	...	Hot wind.
Bikaner	·585	+·057	—·008?	SW	15	0	...	Dust storm.
Sirsa	?	?	?	SE	12	0	...	Dust haze.
Ludhiana	·582	+·156	+·051	S	4	3	...	
Sialkot	·599	+·199	+·072	ESE	6	0	...	
Lahore	·588	+·138	+·069	SSW	3	0	...	
Montgomery	·577	+·124	+·073	N	8	0	...	Dust haze.
Mooltan	·589	+·077	+·074	NW	1	0	...	Do.
D. I. Khan	·606	+·094	+·077	Calm.	3	3	...	
Khushab	·612	+·120	+·081	ENE	9	0	...	Gale.

June 3rd.—Pressure had risen all over the country including North-West India, but the depression was still shown over the Western Desert. The following gives 8 A.M. data for this day :—

Station.	Pressure.			Wind.				Remarks.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours	Cloud.	Rainfall.	
	"	"	"				Inch	
Ajmer	29·735	+·118	+·137	SW	13	0	...	
Sambhar	·734	+·122	+·161	Calm.	14	0	...	Duststorm.
Jodhpur	·748	+·099	...	WSW	11	0	...	Hot wind.
Jaipur	·756	+·123	+·154	SE	9	0	...	Duststorm.
Bikaner	·703	+·118	+·111?	SSE	16	0	...	Do.
Delhi	·762	+·137	+·216	SE	7	0	0·26	Thunder storm.
Sirsa	·698	...	+·163	SE	7	1	0·34	
Ludhiana	·738	+·156	+·194	S	3	0	0·24	Showery.
Rawalpindi	·726	+·098	+·162	Calm.	2	0	...	
Sialkot	·735	+·136	+·209	E	5	0	...	Dust haze.
Lahore	·720	+·132	+·199	SE	2	0	...	Do.
Montgomery	·684	+·107	+·182	WSW	7	0	...	Do.
Khushab	·701	+·089	+·171	ENE	6	0	...	
D. I. Khan	·694	+·088	+·169	Calm.	2	0	...	
Mooltan	·696	+·107	+·186	Calm.	1	0	...	Dust haze.
Jacobabad	·652	+·090	+·151	SE	3	0	...	Hot wind.
Hyderabad (Sind)	·696	+·063	+·168	SW	14	1	...	
Kurrachee	·789	+·080	+·195	W	15	0	...	

Irregularly cyclonic winds prevailed around the depression and the south-east winds in the north-east quadrant had given general light showers to the North-Western Provinces and the East Punjab.

June 4th.—A brisk barometric fall had occurred at the stations of Montgomery, Mooltan and Bikaner, and the depression was better defined than on the preceding day. The following gives the 8 A.M. data for the storm area :—

STATION.	PRESSURE.			WIND.				REMARKS.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	"	"	"				Inch	
Jodhpur .	29·706	—·042	?	SSW	10	0	...	Hot wind.
Ajmer .	·696	—·039	+·111	W	8	0	...	
Jaipur .	·745	—·011	+·153	E	4	0	0·32	Duststorm with rain.
Bikaner .	·628	—·075	? +·047	Calm.	7	0	...	
Sirsa . .	·666	—·032	+·147	SE	4	1		Dust haze.
Ludhiana .	·737	—·001	+·208	S	5	8	...	
Lahore .	·712	—·008	+·199	SSE	2	0	...	Dust haze.
Sialkot .	·748	+·013	+·226	ESE	5	0	...	Dust haze.
Khushab	·681	—·020	+·155	ENE	6	0	...	
D. I. Khan .	·649	—·045	+·133	NE	1	0	...	Dust haze.
Montgomery	·632	—·052	+·144	ESE	6	0	...	Dust haze.
Mooltan .	·628	—·068	+·129	SE	2	0	..	Dust haze.
Jacobabad .	·604	—·048	+·112	E	3	0	...	Hot wind.
Hyderabad (Sind)	·653	—·043	+·136	SW	14	0	...	
Kurrachee .	·747	—·042	+·160	W	18	3	...	

Pressure was decreasing all over North-West India, but was in excess of the average all over the depression area. The winds were cyclonic, but the rainfall had practically ceased.

The slight advance of monsoon winds ceased on the 6th, and very quiet weather with high temperatures prevailed generally over the Indian area. On the 7th an area of abnormally low pressure commenced to appear in the extreme south and barometric gradients steepened over the south of the Bay. There was not much change on the 8th, but on the 9th pressure was in considerable defect all over the south and centre of the Bay, and on the 10th a well-marked advance of monsoon winds occurred both along the Malabar coast and over the south of the Bay.

June 10th.—Pressure was decreasing practically everywhere. The change had been brisk over the north and east of the Bay and pressure was in large defect over the centre of the Bay in about Lat. 17°N.

The following table gives the marine data for the Bay area for this day :—

NAME OF VESSEL.	8 A.M. POSITION.				Barometer as corrected by the Calcutta office.	WIND.		WEATHER.
	Lat. N.		Long. E.			Direction.	Force.	
	°	′	°	′	″			
S.S. *Okhla* .	8	32	85	28	29·629	SW	6	High head sea.
S.S. *Bancoora* .	8	56	82	02	·590	W by S	9	8 P.M. drizzling.
S.S. *Booldana* .	9	46	83	42	·770	SW	6	High sea, fine.
S.S. *Itinda* .	12	05	80	46	·553	SW	5	Moderate sea; fine.
S.S. *Statesman* .	12	23	84	33	...	SW	6	Rough sea; 4 P.M. heavy rain squalls.
S.S. *Itaura* .	12	35	84	31	·595	SW	6	Following sea; overcast.
S.S. *Clan Stuart*	12	40	84	15	...	WSW	4	Slight sea; overcast; midnight frequent rain squalls.
S.S. *Adelna Patti.*	13	06	84	43	...	SW	6	Heavy head sea.
S.S. *Nevasa* .	14	15	96	40	·568	SSE	5	Moderate sea; frequent sharp rain squalls.
S.S. *Clivemoor* .	14	30	81	57	...	SW	4	Steady wind with rain.
S.S. *Cyres* .	15	31	86	19	...	SW	5	Heavy rain.
S.S. *Karagola* .	16	10	96	12	·480	S	6	High sea, squally.
S.S. *Ethiopia* .	16	31	93	15	·491	Var.	3	Moderate confused swell, showery.
S.S. *Kangra* .	Rangoon.				·619	...	...	4 P.M. frequent rain squalls.
S.S. *Trold* .	16	53	86	20	·550	W	4	4 P.M. squally with rain.
S.S. *Tannenfels*	18	37	86	05	·516	NW	3 to 4	
S.S. *Africa* .	19	01	90	12	·473	NE	4	Slight sea, overcast. Noon, squally.
S.S. *City of Perth*	19	17	87	28	·542	NNE	3	Smooth sea, fine 8 P.M. squally with rain.
S.S. *Nerbudda* .	Gopalpur.				·476	...	...	4 A.M. fine.
S.S. *Ceylon* .	20	12	87	53	·499	NNE	2	Noon, passing rain squalls.
S.S. *Saint Kilda*	20	12	86	56	·297	NE by E	5	Rough sea; noon, heavy squalls.

The above data show a fairly complete cyclonic indraught of the winds towards a centre in about Lat. 17°N. and Long. 91°E. where pressure was about 0·20″ below the normal. The north-east winds on the north

side of the storm varied in force between 3 and 5 and the westerly winds in the western quadrants were also light to fresh, but the south wind on board the *Karagola* in the Gulf of Martaban was strong, while the south-west winds over the south-west of the Bay were strong to a gale. The *Bancoora* in Lat. 8° 56′N. and Long. 82° 2′E. reported a west-by-south gale of force 9.

The following gives the 8 A.M. observations at the coast stations around the centre and north of the Bay and at Port Blair

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Remarks.
	8 A.M. reduced to sea-level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Port Blair	29·599	—·073	—·130	WSW	16	7	0·76	
Cocos Island	·593	—·060	...	SW	...	8	0·82	
Moulmein	·622	—·073	—·112	...	5	2	0·23	
Diamond Island	·537	—·084	—·158	SSW	14	10	1·39	Sea rough and squally.
Bassein	·550	—·075	—·144	SE	8	9	0·11	
Akyab	·541	—·071	—·100	NE	1	6	0·43	Showery.
Chittagong	·554	—·076	—·062	NE	4	8	...	Distant lightning.
Calcutta	·553	—·056	+·007	E	3	7	...	
Saugor Island	·523	—·076	—·023	ENE	8	6	...	Sea smooth.
Balasore	·540	—·052	+·011	NNE	3	2	...	
False Point	·514	—·068	—·045	NE	8	6	...	
Cuttack	·507	—·066	—·033	Calm	1	2	...	
Gopalpur	·503	—·059	?—·080	N	8	1	...	
Waltair	·512	—·030	—·049	SW	7	10	0·51	Sea slight.
Cocanada	·526	—·022	—·059	W	9	9	0·04	Sea slight.
Masulipatam	·541	—·033	—·074	WSW	7	10	...	

The above shows a general barometric fall around the Bay together with an irregular cyclonic circulation of the winds. The strongest wind was reported from Port Blair. At the Ceylon stations the wind was increasing and blowing strongly from south-west, showing that a strong monsoon current was feeding into the depression.

June 11th.—Pressure was rising briskly to rapidly over Burma and falling on the Orissa and Circars Coasts, while it had been steady over the south of the Bay.

The following gives the marine observations recorded over the Bay on this day:—

Name of vessel.	8 A.M. Position.		Barometer as corrected by the Calcutta Office.	Wind.		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	"			
S.S. *Adelina Patti.*	11 20	83 57	...	SW	8	Very heavy sea.
S.S. *Shahjehan*	Madras		29·653	...	...	8 P.M. cloudy.
S.S. *Booldana*	13 07	85 08	·716	SW	5	High sea; fine.
S.S. *Trold*	14 31	85 20	·510	SW	5	Squally with rain.
S.S. *Clan Stuart*	15 14	85 04	...	SW	4	High sea; overcast; noon rainy.
S.S. *Itaura*	15 34	85 31	·498	SW	9	High following sea; heavy squalls.
S.S. *Kangra*	15 40	95 30	·634	SW	4	Moderate sea; squally.
S.S. *Cyres*	18 54	87 13	...	SW	4	Incessant rain.
S.S. *Ethiopia*	16 06	96 00	...	SW	4	Cloudy.
S.S. *Statesman*	18 41	86 31	...	WSW		High sea; increasing gale; violent squalls with thick rain.
S.S. *Kistna*	Rangoon		·663	...	...	
S.S. *Java*	19 58	86 42*	·371	NNE	4	Cloudy; midnight, heavy rain.
S.S. *Nerbudda*	20 21	87 33	·326	NE	6	Squally; 4 P.M. heavy rain squalls.
S.S. *Arratoon Apcar.*	21 00	88 12	·367	...	...	8 P.M. heavy squalls.
S.S. *Kasara*	21 40	90 44	·460	ESE	6	Head sea; dull cloudy.
S.S. *Africa*	Hooghly river		·480	NE	5	Cloudy.
S.S. *Madura*	Near Calcutta		·478	...	...	

* Noon position.

The above observations show that the cyclonic storm had advanced north-westward, and that it was central apparently in about Lat. 19°10′N. and Long. 88°E. The ships at the head of the Bay experienced north-east winds of forces 5 and 6 with heavy squalls and rain, while the *Cyres*, the vessel nearest to the centre, reported a moderate south-west wind and incessant rain. The strongest winds were reported from the south-west quadrant of the storm and at some distance from the centre. Thus the *Adelina Patti* had a south-west fresh gale and the *Itaura* a south-west strong gale. This arrangement of

the wind forces around the storms of the monsoon period is common to most storms.

The following gives the 8 A.M. observations at the stations around the north of the Bay and at Port Blair :—

STATION.	PRESSURE.			WIND.				REMARKS.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfa.	
	"	"	"				Inches	
Port Blair .	29·680	+·081	—·050	WSW	14	9	0·62	
Cocos Island	·708	+·115	...	SW	...	10	0·71	
Diamond Island.	·644	+·107	—·050	SSE	19	10	1·05	Sea rough.
Bassein .	·666	+·116	—·027	SE	5	10	0·34	Raining.
Akyab .	·559	+·018	—·079	SE	3	10	...	
Chittagong.	·574	+·020	—·035	NE	3	10	0·92	Distant lightning.
Barisal .	·555	+·001	—·018	NE	2	10	0·90	
Calcutta .	·550	—·003	+·013	NE	3	10	0·19	
Shortt's Island.	·457	—·077	...	N	9	10	0·60	Showery.
Saugor Island.	·493	—·030	—·042	NE	8	10	...	Sea slight.
Puri . .	·458	—·049	...	N	8	9	0·16	
Balasore .	·511	—·029	—·008	NNE	3	6	...	Distant lightning.
False Point.	·448	—·066	—·104	N	8	10	0·54	
Cuttack .	·491	—·016	—·044	NE	3	10	0·17	Drizzling.
Gopalpur .	·462	—·041	—·113	N	10	7	0·03	
Waltair .	·471	—·041	—·088	W	8	10	0·05	Sea slight.
Cocanada .	·486	—·040	—·100	WSW	7	10	0·04	
Masulipatam	·530	—·011	—·082	WNW	11	10	...	

The barometer had risen rapidly at Diamond Island, where the wind had shifted from south-south-west to south-south-east. At the head of the Bay pressure was giving way, and at Saugor Island the force of the wind at 8 A.M. was 26 miles per hour and at False Point 22 miles. The weather was overcast with rain.

June 12th.—The storm had advanced along a west-north-west track at an average rate of about 6 miles per hour, and was crossing the Orissa Coast about Puri. The barometer had continued to rise over Burma, and to fall in Bengal, Orissa and Ganjam. The following gives the marine observations on this day :—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer as corrected by the Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	°	"			
S.S. *Trold* .	12 35	84 33	29·550	SW	5	Rough sea ; 4 A.M. squally with rain.
S.S. *Shahjehan*	12 45	83 36	·623	SW	6	Overcast.
S.S. *Clan Monroe.*	15 05	82 12	·528	SSW	4	Moderate sea ; overcast.
S.S. *Kistna* .	15 46	94 00	·658	SW	4	Considerable beam sea; cloudy; noon heavy rain-squalls.
S.S. *Booldana* .	16 11	86 46	·621	SW	6	High sea ; fine.
S.S. *Kangra* .	16 27	93 24	·696	S	5	High sea ; overcast ; 4 A.M. frequent squalls.
S.S. *Clan Stuart*	16 37	85 57	...	WSW	6	Overcast ; 4 P.M. strong squalls.
S.S. *Itaura* .	18 06	86 59	·343	SW	9	Confused sea ; fierce squalls ; 4 A.M. heavy rain.
S.S. *Arratoon Apcar.*	18 37	89 53	·467	S	9	High sea ; 4 A.M. heavy rain.
S.S. *Java* .	19 20	85 24	·295	W by S	8	High sea ; heavy rain.
S.S. *Cyres* .	20 18	87 33	...	S	8	Rainy.
S.S. *Statesman.*	20 22	88 07	...	SSE	8	High sea ; heavy rains qualls.
S.S. *Madura* .	Saugor Island		·355	...	...	
S.S. *Nerbudda.*	Hooghly river		·398	SE	4	Squally with rain.
S.S. *Purulia* .	Calcutta		·114	...	...	4 P.M. heavy passing rain squalls.

With the passage of the storm across the coast all the north-easterly winds had disappeared, and the wind drew from south-west in the south through south in the centre to south-east in the north of the Bay. The force of the wind had increased and averaged 5·8 for the whole Bay, which was 1·8 above the normal. Rainy, squally weather prevailed throughout the whole Bay, and fresh to strong gales were reported by several ships. The *Statesman* in the extreme north reported south-south-east winds of force 8 ; the *Cyres* in Lat. 20° 18′N. and Long. 87° 33′E. southerly winds of force 8 ; and the *Itaura*, the *Java* and the *Adelina Patti* in the centre and south of the Bay south-west winds of forces 8 to 9.

The following gives the coast observations for 8 A.M. of this date :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inches	
Diamond Island.	29·726	+·082	+·031	SSW	13	10	0·40	Sea slight.
Akyab	·619	+·060	—·013	S	5	8	0·27	
Chittagong	·628	+·054	+·029	SE	4	10	0·26	
Barisal	·558	+·003	—·004	ENE	6	10	0·11	
Calcutta	·456	—·094	—·067	NE	11	10	0·67	Showery.
Saugor Island.	·398	—·095	—·123	ESE	17	10	5·73	
Balasore	·345	—·166	—·161	ENE	11	10	2·91	
Shortt's Island.	·290	—·167	...	ESE	27	10	3·45	Strong wind.
False Point.	·258	—·190	—·281	SE	20	10	1·99	
Cuttack	·160	—·331	—·366	NE	9	10	1·67	Showery.
Puri	·040	—·418	..	WNW	19	10	3·20	Raining.
Gopalpur	·294	—·168	—·270	WSW	13	10	3·42	Showery.
Waltair	·445	—·026	—·112	SW	10	10	0·72	Sea rising.
Cocanada	·495	+·009	—·089	WSW	5	10	0·50	Sea rough.
Masulipatam	·560	+·030	?—·052	WNW	9	10	...	

The barometer had fallen over 0·40″ at Puri, 0·30″ at Cuttack and over 0·10″ at Balasore and False Point. The centre of the storm lay a short distance to the south-west of Puri at 8 A.M., where pressure was apparently nearly five-tenths of an inch below the normal. The storm had hence intensified considerably, and at the centre pressure was probably between 0·5″ and 0·6″ below the normal. Very strong cyclonic winds prevailed in the storm area in Orissa, South Bengal and the north of the Bay where also heavy rain had fallen.

June 13th.—The storm had advanced slowly (about 170 miles) during the previous 24 hours in a north-westerly direction, and the centre lay a little to the north of Sambalpur. Pressure at that station was 0·33″ below the normal, so that the storm was still of considerable intensity. Over the Bay strong southerly winds continued to prevail, and the average force of the wind there was 5·7, which was only 0·1 less than on the preceding day and was 1·7 above the normal. The *Statesman* in the north of the Bay reported a south-west gale of force 9 and the *Itaura* in the centre of the Bay a south-by-west gale also of force 9. The following gives the 8 A.M. observations in the storm area :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inches	
Waltair	29·402	—·043	—·146	SW	19	10	0·20	Sea rising.
Gopalpur	·331	+·037	—·221	SW	37	8	1·25	Sea very rough.
Puri	·317	+·277	...	SW	42	7	0·74	Gale.
Cuttack	·292	+·132	—·224	SSW	11	10	0·24	Showery.
False Point	·326	+·068	—·202	S	30	10	0·85	
Shortt's Island	·292	+·002	...	SSW	21	8	1·89	Strong wind
Balasore	·323	—·022	—·168	SSE	15	9	0·84	Showery.
Saugor Island	·380	—·018	—·126	SSW	29	10	0·54	Squally.
Calcutta	·392	—·064	—·122	SE	10	10	1·27	Showery.
Burdwan	·396	—·091	—·113	E	9	10	1·13	Thunderstorm.
Midnapore	·337	—·092	...	SE	7	10	1·80	Raining.
Chaibassa	·237	—·159	—·295	ESE	11	9	1·07	Showery.
Ranchi	·283	—·195	—·217	E	2	10	1·79	
Bankura	·309	—·134	...	E	20	10	1·93	Raining.
Raniganj	·348	—·129	...	ESE	9	10	0·70	Gloomy.
Berhampore	·449	—·091	—·071	E	12	10	0·31	Showery.
Naya Dumka	·400	—·116	...	SSE	7	10	1·49	Raining.
Gaya	·348	—·148	—·136	NE	23	10	0·14	Duststorm with rain.
Hazaribagh	·321	—·178	—·184	E	22	10	0·68	
Benares	·390	—·110	—·077	E	4	10	0·05	
Allahabad	·398	—·081	—·077	ENE	18	10	...	Strong wind
Nowgong	·399	—·046	—·093	E	7	6	...	
Sutna	·374	—·091	—·103	NE	14	6	...	Gale.
Saugor	·400	—·030	—·116	NE	9	2	...	
Hoshangabad	·401	—·061	—·150	SW	4	0	...	
Seoni	·370	—·077	—·157	WNW	5	8	...	
Jubbulpore	·348	—·076	—·161	NW	7	4	...	
Raipur	·335	—·107	—·203	SW	11	10	2·50	Raining.
Sambalpur	·188	—·189	—·331	WSW	13	10	3·80	Do.

The storm, as mentioned above, lay close to Sambalpur where the greatest deficiency of pressure was reported. Strong cyclonic winds prevailed in the storm area, and

even at Saugor Island the velocity of the wind at 8 A.M. was 46 miles per hour. Heavy rain had fallen in the neighbourhood of the storm.

June 14th.—The storm which lay over the eastern districts of the Central Provinces on the 13th, had advanced along a curved path through north to north-north-east, and lay at 8 A.M. near Hazaribagh. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
		"					Inches	
Puri	29·348	+·031	...	SW	32	5	...	Strong wind.
Cuttack	·318	+·026	—·193	SW	10	7	0·14	
False Point	·321	—·005	—·200	SW	28	9	...	Dust haze.
Shortt's Island	·262	—·030	...	SSW	20	8	...	
Balasore	·274	—·049	—·212	SW	15	8	0·12	
Saugor Island	·278	—·102	—·223	SSW	37	10	0·70	Squally.
Midnapore	·208	—·129	...	S	12	10	0·21	
Chaibassa	·168	—·069	—·353	W	10	9	1·32	Continuous rain.
Calcutta	·254	—·138	—·245	SSW	10	10	1·47	Showery.
Burdwan	·217	—·179	—·280	SW	7	10	0·83	
Krishnagar	·251	—·185	...	S	10	8	0·46	
Faridpur	·344	—·175	...	SE	7	8	0·58	
Rampur Boalia	·252	—·191	...	SE	9	10	1·34	Strong wind
Raniganj	·133	—·215	...	SE	7	10	0·51	Drizzling.
Berhampore	·252	—·197	—·257	E	8	10	1·95	Showery.
Hazaribagh	·169	—·152	—·321	NNW	12	10	3·09	Raining.
Daltonganj	·249	—·046	...	W	14	10	2·50	Drizzling.
Naya Dumka	·181	—·219	...	ESE	25	10	1·43	
Gaya	·190	—·158	—·285	NE	14	10	3·35	Continuous rain.
Dehri	·239	—·130	...	N	20	10	2·70	Raining.
Benares	·368	—·022	—·105	NNW	3	10	0·36	Showery.
Arrah	·269	—·124	...	NE	13	10	2·68	Drizzling.
Patna	·261	—·146	—·281	ENE	15	10	3·74	Continuous rain.
Buxar	·311	—·073	...	N	15	10	1·20	Raining.
Darbhanga	·291	—·166	—·270	ENE	14	10	2·73	Drizzling.
Purnea	·300	—·220	—·219	ENE	9	10	4·22	Continuous rain.
Dinajpur	·339	—·191	—·197	NE	15	10	0·76	Showery.
Bogra	·337	—·188	—·229	...	...	10	0·47	Gale.

Pressure was 0·35″ at Chaibassa and 0·32″ at Hazaribagh below the normal, so that the intensity of the storm had not changed much. Strong cyclonic winds continued all over North-East India and at Saugor Island the velocity of the wind at 8 A. M. was 48 miles per hour. General rain had fallen over the whole of Burma and North-East India—heavy in the storm area.

There had been no decrease in the strength of the wind over the Bay, where the average force had, on the contrary, risen to 6·1, which was 2·1 above the normal. The following vessels in the north of the Bay reported gales :—the *Statesman* and the *Kistna*, force 9, from south-south-west ; the *Itaura* and *Purulia*, force 8, from south-west and the *Hillcrag*, force 8, from south-south-east.

June 15th.—The storm had moved nearly east-north-eastward, and was central near Bogra. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inches	
Calcutta	29·362	+·108	—·148	Calm	13	10	0·40	Showery.
Burdwan	·344	+·127	—·155	W	15	10	0·79	Gale.
Krishnagar	·345	+·094	...	W	9	10	0·92	
Raniganj	·338	+·205	...	WNW	6	10	1·98	Do.
Berhampore	·284	+·032	—·223	W	16	10	1·33	Nor' wester.
Faridpur	·360	+·016	...	SW	9	10	5·45	
Bogra	·196	—·141	—·355	...	...	10	2·04	Showery.
Rampur Boalia.	·186	—·066	...	W	9	10	1·49	Gale.
Serajganj	·220	—·108	...	SW	8	10	2·84	
Mymensingh	·279	—·126	—·275	SW	2	10	2·98	Showery.
Naya Dumka	·349	+·168	...	NW	24	10	2·97	
Malda	·226	—·021	...	WNW	6	10	1·35	Drizzling.
Dinajpur	·223	—·116	—·309	NE	18	10	1·37	
Rangpur	·222	—·159	...	ENE	17	10	1·86	Raining.
Purnea	·329	+·029	—·186	NNE	5	10	2·79	Continuous rain.
Darbhanga	·396	+·105	—·111	ENE	8	10	5·07	
Jalpaiguri	·286	—·142	—·271	ESE	7	4	1·45	Duststorm.
Dhubri	·269	—·153	—·272	E	24	10	1·31	Gale.

The above shows that the barometric depression at the centre of the storm was nearly 0·40″, so that there had

been no great change in the storm's intensity since the preceding day. Strong cyclonic winds prevailed over the interior of Bengal, but at Saugor Island the force of the wind was decreasing. General rain had again fallen over Burma, Assam and Bengal, and heavy rain in Bihar and North Bengal.

June 16th.—The following gives the 8 A. M. data for Bengal :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inches	
Cuttack	29·452	+ ·070	—·064	W	5	6	...	
False Point	·452	+ ·062	—·069	SW	16	10	...	Dust haze.
Short t's Island.	·448	+ ·106	...	SW	15	4	...	
Balasore	·419	+ ·060	—·068	WSW	3	2	...	
Saugor Island.	·415	+ ·057	—·089	SSW	10	9	...	Dust haze.
Barisal	·415	+ ·025	—·124	WSW	5	10	0·90	
Jessore	·417	+ ·053	—·108	NNW	4	7	0·03	
Calcutta	·414	+ ·052	—·089	Calm	4	10	0·17	
Burdwan	·417	+ ·073	—·083	Calm	3	10	0·11	
Krishnagar	·416	+ ·071	...	WNW	6	2	0·01	
Raniganj	·418	+ ·080	...	Calm	1	9	0·01	
Berhampore	·428	+ ·144	—·082	Calm	8	8	0·08	
Faridpur	·440	+ ·080	...	Calm	5	8	0·50	
Narayanganj.	·411	+ ·058	—·137	NW	10	9	0·45	
Chittagong	·420	—·040	—·174	NNE	9	10	3·98	
Sirajganj	·423	+ ·203	...	NNW	6	6	0·59	
Mymensingh	·430	+ ·151	—·130	Calm	0	10	0·99	Showery.
Rampur Boalia.	·394	+ ·208	...	Calm	4	6	0·32	
Bogra	·420	+ ·224	—·116	...	...	10	0·17	
Dinajpur	·434	+ ·211	—·097	NNE	5	2	0·58	
Rangpur	·427	+ ·205	...	NNW	5	10	0·15	
Jalpaiguri	·446	+ ·160	—·111	Calm	3	2	0·61	

The above shows that pressure had increased briskly to rapidly in Bengal, and that the storm had filled up. The winds had consequently fallen off in strength in Bengal, where also only light to moderate rain had been received.

The following data give the position, rate of advance, and course of the centre from the 10th to the 15th:—

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 during interval.	Course of the storm centre during previous 24 hours.
	° ′	° ′	Miles.	Miles.	°
10th June	17 0	91 0	...	...	...
11th "	19 10	88 0	250	10	N 52 W
12th "	20 10	86 0	155	6	N 63 W
13th "	22 0	84 0	170	7	N 48 W
14th "	24 0	86 10	190	8	N 43 E
15th "	25 15	89 20	210	9	N 65 E

On June 12th the mean temperature was very excessive over Rajputana and the adjacent districts. This is shown below :—

Station.	Mean Temperature. Actual, 12th June 1900.	Mean Temperature. Normal, 12th June.	Mean Temperature. Variation of actual from normal, 12th June 1900.
	°	°	°
Jaipur	102·2	92·5	+9·7
Bikaner	105·0	95·4	+9·6
Ajmer	101·0	91·4	+9·6
Indore	93·7	85·1	+8·6
Sambhar	101·2	93·0	+8·2
Deesa	100·1	92·0	+8·1
Sutna	99·8	91·9	+7·9
Saugor	97·8	90·0	+7·8
Jubbulpore	96·8	89·4	+7·4
Cawnpore	98·8	91·4	+7·4
Neemuch	96·6	89·3	+7·3
Ahmedabad	98·5	91·2	+7·3
Mainpuri	99·4	92·2	+7·2
Hyderabad (Sind)	99·9	92·8	+7·1
Mooltan	101·3	94·9	+6·4
Jacobabad	104·8	98·5	+6·3
Jhansi	101·3	95·0	+6·3
Sirsa	101·7	95·5	+6·2

Within this area of excessive temperature a shallow

depression was formed. The following gives 8 A.M. data for this day for the depression area in North-West India:—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"					
Pachpadra .	29·462	—·055	...	NW	6	0	...	Strong wind.
Jodhpur .	·436	—·112	...	WNW	5	0	...	Hot wind.
Ajmer .	·457	—·077	—·059	NE	4	0	...	
Jaipur .	·487	—·021	—·013	E	3	0	...	Dust haze.
Bikaner .	·437	—·040	—·088	Calm	4	0	...	Do.
Sirsa . .	·427	—·025	—·035	SE	5	1	...	
Delhi . .	·495	+·018	+·024	SE	3	0	...	Hot wind.
Ludhiana .	·474	—·009	0	S	2	0	...	Dust haze.
Lahore .	·484	—·034	+·030	N	1	0	...	Do.
Montgomery	·467	—·018	+·045	NNE	5	0	...	Do.
D. I. Khan.	·471	—·034	+·005	NNE	1	0	...	Do.
Mooltan .	·477	—·026	+·028	Calm	1	0	...	Do.
Jacobabad .	·485	—·018	+·038	S	1	0	..	Hot wind.

The winds were cyclonic around the depression area, but the force was low and there was no rain.

June 13th.—Pressure was giving way all over North-West India, particularly in the South Punjab, and the depression had moved northward and was central between Sirsa and Montgomery. 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.	Variation from normal.	WIND Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"					
Pachpadra .	29·341	—·121	...	WNW	7	10	...	Strong wind.
Jodhpur .	·337	—·099	...	WSW	5	0	...	Hot wind.
Ajmer .	·365	—·092	—·132	S	3	4	...	Duststorm.
Jaipur .	·377	—·110	—·108	Calm	3	0	...	
Bikaner .	·323	—·114	—·188	NNW	4	0	...	Dust haze.
Delhi .	·405	—·090	—·057	SE	6	0	...	Hot wind.
Sirsa .	·261	—·166	—·190	E	8	0	...	
Ludhiana .	29·365	—·099	—·087	SE	4	0	...	
Lahore .	·323	—·161	—·119	SE	5	0	...	
Sialkot .	·341	—·136	—·094	SE	2	0	...	Hot wind.
Khushab .	·317	—·161	—·148	NE	12	0	...	Duststorm.
Montgomery	·256	—·211	—·157	ESE	7	0	...	Wind variable.
D. I. Khan.	·363	—·108	—·088	W	4	0	...	Dust haze.
Mooltan .	·306	—·171	—·133	Calm	3	0	...	Do.
Jacobabad .	·323	—·162	—·113	Calm	2	0	...	

Pressure was largely below the normal in the storm area, and the south-east winds were increasing over the Punjab and the west of the North-Western Provinces.

June 14th.—The storm was still shown over the South Punjab, and the pressure at Sirsa and Bikaner was 0·20″ below the normal. The following gives 8 A.M. data for the storm area for this day:—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"					
Ajmer .	29·340	—·025	—·179	W	11	0	...	Hot wind.
Sambhar .	·299	—·066	—·186	WNW	10	0	...	Hot wind and duststorm.
Jaipur .	·294	—·083	—·197	WSW	5	0	...	Duststorm.
Bikaner .	·278	—·045	—.242	WSW	8	0	...	Do.
Sirsa . .	·236	—·025	—·213	SE	4	0	...	Dust haze.
Jacobabad .	·298	—·025	—·130	NE	2	0	...	Hot wind.
Mooltan .	·312	+·006	—·121	NW	2	0	...	Duststorm.
Montgomery	·295	+·039	—·128	NNE	15	0	...	Dust haze.
Lahore .	·313	—·010	—·127	NE	6	0	...	Duststorm.
Ludhiana .	·300	—·065	—·145	N	20	0	...	Gale.
Umballa .	·297	—·108	—·219	ESE	10	0	...	Dust haze.
Delhi .	·326	—·079	—·137	E	6	0	...	Hot wind.
Agra . .	·294	—·112	—·176	SE	12	0	...	
Jhansi .	·306	—·110	—·179	SSW	7	0	...	Dust haze.

Well marked and strong cyclonic winds prevailed around the storm and duststorms had occurred at several places in the Punjab, though the rainfall, except on the North-West Himalayas and at some submontane stations, had been light and scattered.

June 15th.—Conditions were practically unchanged. The following gives 8 A.M. data 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"					
Mooltan	29·307	—·005	—·127	S	2	0	...	Dust haze.
D. I. Khan	·300	—·041	—·150	Calm	2	0	...	Do.
Khushab	·318	—·023	—·161	E	6	0	...	
Lahore	·326	+·013	—·109	Calm	2	0	...	
Montgomery	·278	—·017	—·137	E	6	0	...	Dust haze.
Ludhiana	·292	—·008	—·152	S	3	0	...	Do.
Sirsa	·226	—·010	—·220	SW	13	1	...	
Bikaner	·326	+·048	—·181	SSW	11	0	...	Dust-storm.
Delhi	·307	—·019	—·144	SE	7	0	...	Dust haze.
Agra	·293	—·001	—·173	NW	8	0	...	Do.
Mainpuri	·297	—·049	—·195	S	3	10	...	

Pressure remained very low over North-West India, but particularly at Sirsa, and the depression continued to be well-defined. Steep barometric gradients obtained in Rajputana, and strong south-westerly and westerly winds were blowing there, though in the Punjab the south-east winds had decreased in force. There had been no rain.

June 16th.—On this day the barometer was rising briskly to rapidly over North-West India and the depression had practically filled up.

The period from the 16th to the 21st was marked by feeble monsoon conditions when little rain fell, and the weather was abnormally hot and dry. On the 21st, though the barometer was rising steadily over the Bay, the wind drew into east and north-east at the head of the Bay, and on the 22nd the barometer began to fall over the north of the Bay and the winds to draw into cyclonic directions at the coast stations.

June 21st.—The barometer was rising all over the Bay but the winds gave evidence of unsettled conditions. The following are the marine data forthis day :—

Name of Vessel.	8 A.M. Position. Lat. N.	8 A.M. Position. Long. E.	Barometer as corrected by the Calcutta Office.	Wind. Direction.	Wind. Force.	Weather.
	° ′	° ′	"			
S.S. *Ellora*	12 16	85 35	29·678	SW by S	5	High head sea; overcast.
S.S. *Patna*	12 17	80 13	·550	W by N	2	Fine.
S.S. *Afghan*	12 25	84 20	·706	SW	4	Moderate sea; cloudy.
S.S. *Manora*	Madras		·698	...	...	8 P.M. fine.
S.S. *Pentakota*	Do.		·620	...	...	Do.
S.S. *Onda*	13 20	90 50	·654	WSW	4	Overcast; 4 A.M. continuous rain.
S.S. *Saint Irene*	13 39	82 35	...	SW	5	Cloudy.
S.S. *Yanariva*	13 56	82 51	·580	SSW	7	Heavy sea.
S.S. *Nurani*	14 41	81 21*	...	W by N	4	
S.S. *Deepdale*	15 21	89 53	...	SW	5	Head sea; 8 P.M. heavy rain squalls.
S.S. *Kasara*	Rangoon*		·704	...	...	4 A.M. light rain.
S.S. *Camorta*	17 25	91 59	·578	SW	2	Moderate sea; cloudy; 4 A.M. showery.
S.S. *Warora*	18 02	91 20	·625	SSW	4	Slight sea; fine.
S.S. *Adana*	19 02	87 14	·604	S	2	Considerable swell; fine.
S.S. *Foreric*	19 44	87 20	·605	WNW	2	Cloudy.
S.S. *Kapurthala*	20 32	92 06	·631	SE	6	Frequent heavy rain squalls.
S.S. *Bezwada*	21 40	87 48	·559	Var.	2	Smooth sea; fine.
S.S. *Kum Sang*	Hooghly river.		·789	ENE	4	Overcast.

* Noon position.

The winds were south-westerly and westerly all over the southern half of the Bay, but over the northern half there was a light but well-defined cyclonic circulation, apparently around a centre in about Lat. 19° N. and Long. 89° E. Fresh to strong winds and frequent heavy rain squalls were reported on board the *Kapurthala* off the Arakan Coast, but the general force of the wind over the Bay was 4·5, which was 0·5 above the normal.

The following gives the 8 A.M. observations at the coast stations around the north of the Bay for this day:—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inch.	
Diamond Island.	29·699	+·048	—·047	SW	8	10	0·76	
Akyab	·646	+·045	—·038	SE	2	4	...	
Chittagong	·663	+·034	+·013	NE	4	2	0·18	
Barisal	·632	+·030	+·033	ENE	3	10	...	
Calcutta	·618	+·039	+·055	E	3	8	...	
Saugor Island.	·610	+·037	+·046	ENE	9	8	...	Sea smooth.
Balasore	·609	+·035	+·062	Calm	4	7	...	
Shortt's Island.	·609	+·035	...	SSE	9	5	...	
False Point	·592	+·036	+·022	S	11	10	...	
Cuttack	·598	+·047	+·030	Calm	2	8	...	
Puri	·591	+·041	...	Calm	5	7	...	Gloomy.
Gopalpur	·604	+·059	?+·078	NW	9	8	...	
Waltair	·607	+·053	+·008	SW	10	10	...	Sea smooth.
Cocanada	·616	+·065	—·006	W	8	8	0·04	
Masulipatam	·661	+·063	+·012	WNW	9	10	0·01	Dust storm with rain.

The barometer was rising everywhere and the weather was generally fine, and, except for the shift of winds to east and north-east, gave no indication of the shallow storm over the north of the Bay.

June 22nd.—Pressure was decreasing slowly over the north of the Bay and pressure was in moderate defect over the east of the Bay. The following gives the marine data for this day:—

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	Long. E.	Barometer as corrected by the Calcutta Office.	WIND. Direction.	Force.	WEATHER.
	° ′	° ′	"			
S.S. *Peshawur*	10 25	81 13	29·651	WSW	5	
S.S. *Nawab*	10 28	80 04	·697	WSW	4	Cloudy.
S.S. *Ellora*	10 31	84 33	·716	SW by S	4	
S.S. *Yanariva*	11 11	82 57	·630	SW	7	Heavy sea.
S.S. *Alnwick*	12 13	84 14	...	SW	2	Fine.
S.S. *Onda*	12 25	88 24	·713	SW	6	Heavy head sea. 4 A.M. squally.
S.S. *Deepdale*	12 34	90 51	29·696	SW	5	High sea and overcast.
S.S. *Hensada*	Madras		·686	...	...	4 A.M. cloudy.
S.S. *Patna*	Madras		·587	...	...	8 P.M. fine.
S.S. *Pentakota*	13 28	82 47	·590	WSW	4	South swell and fine.
S.S. *Shahjehan*	13 57	93 06	·783	SW	4	Cloudy. 8 P.M. occasional showers.
S.S. *Craftsman*	15 05	85 50	...	SW	4	Fine. 4 P.M. light rain.
S.S. *Manora*	15 14	82 22	·736	WSW	4	Light sea and rainy.
S.S. *Afghan*	15 37	85 31	·686	SW	5	Overcast.
S.S. *Warora*	15 40	94 32	·686	S	4	Moderate sea and cloudy.
S.S. *Olivemoor*	15 41	82 52	...	SW	3	Less rain.
S.S. *Adana*	16 31	85 57	·604	SWby S	6	Heavy head sea and squally.
S.S. *Maharani*	Rangoon		·757	...	...	4 P.M. fine.
S.S. *Malda*	Rangoon		·731	...	...	Midnight occasional rain squalls.
S.S. *Saint Irene*	16 58	83 06	...	SW	4	Showery.
S.S. *Vortigern*	19 29	86 46	·573	W	4	Drizzling.
S.S. *Camorta*	19 40	89 49	·578	SW	4	Considerable swell and cloudy.

Moderate to strong south-west winds continued over the south and centre of the Bay, but for the north there was practically no information to show the development of the disturbance.

The following are the coast observations for 8 A.M. for the same date:—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	REMARKS.
	"	"	"				Inches	
Diamond Island.	29·715	+·016	—·036	SW	9	8	0·86	Showery.
Bassein	·714	+·027	—·033	Calm	5	7	0·19	
Rangoon	·738	+·039	—·023	SW	5	9	0·25	Showery.
Akyab	·634	—·012	—·057	SE	2	9	1·10	Showery.
Chittagong	·628	—·035	—·028	SE	5	2	0·21	
Barisal	·604	—·028	—·002	SSE	3	7	1·25	
Calcutta	·586	—·032	+·017	E	4	7	...	

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inch.	
Saugor Island.	29·563	—·047	—·007	NE	57	7	0·05	Showery.
Balasore .	·576	—·033	+·023	ENE	2	5	...	
Shortt's Island	·561	—·048	...	SW	6	5	...	
False Point	·565	—·027	—·011	W	5	10	0·08	North-wester with rain.
Cuttack .	·567	—·031	—·008	WSW	2	10	0·47	
Puri . .	·574	—·017	...	WNW	6	7	0·27	Gloomy.
Gopalpur .	·558	—·046	?+·028	NW	9	10	0·10	Sea smooth.
Waltair .	·601	—·006	—·007	SW	11	10	0·48	Sea smooth.
Cocanada .	·613	—·003	—·015	WSW	8	9	...	
Masulipatam	·649	—·012	—·006	WNW	12	9	0·11	
Nellore .	·686	+·020	+·016	WNW	10	10	...	Gale.
Madras .	·697	+·028	—·018	SW	6	3	0·09	Sea smooth.

As mentioned above there had been a slight barometric fall around the north of the Bay, but the general conditions were generally similar to those reported on the previous day.

June 23rd.—The depression over the north of the Bay had developed somewhat and a small central storm area was shown close to the Sandheads. 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 the Calcutta Office.	Wind. Direction.	Wind. Force.	Weather.
	° ′	° ′	"			
S.S. *Onda* .	11 28	86 20	29·759	SW	6	High head sea.
S.S. *Foreland* .	13 38	84 46	·671	SW	6	Moderate sea and fine. 4 P.M. squally.
S.S. *Pentakota*.	13 59	87 21	·596	SSW	5	Moderate sea and cloudy.
S.S. *Adana*	14 01	85 04	·709	SW	6	High head sea.
S.S. *Alnwick* .	14 55	85 35	...	SW	5	Fine.
S.S. *Patna* .	15 05	81 26	·570	WNW	4	Moderate sea and overcast.
S.S. *Hensada* .	15 15	81 03	·634	W	5	Moderate sea and overcast.
S.S. *Maharani*.	16 36	97 22	·668	SE	4	Heavy rain squalls.
S.S. *Malda* .	16 37	92 50	·670	WSW	5	Moderate sea and rainy.
S.S. *Kasara* .	Rangoon		·734	...	...	Noon fine.
S.S. *Shahjehan*	17 18	90 57	·703	SW	6	Fine and clear. Noon, heavy rain squalls.
S.S. *Vortigern* .	17 40	84 24	·633	SW	6	High sea and heavy rain.
S.S. *Olivemoor*.	18 28	85 38	...	W	5	Overcast.
S.S. *Manora* .	18 43	85 31	29·564	WSW	4	Light sea and overcast. Noon light rain.
S.S. *Afghan* .	18 59	86 11	·586	SW	2	South-west swell and overcast.
S.S. *Saint Irene*	19 24	85 52	...	Var.	2	Cloudy.
S.S. *Craftsman*.	19 32	87 50	...	WSW	5	Heavy rain.
S.S. *Kapurthala*	19 46	92 50	·625	S	6	Frequent heavy rain squalls.
S.S. *Sirsa* .	20 04	89 27	·482	SW	6	Moderate sea and thick rain.
S.S. *Shahzada* .	Hooghly river		·415	...	...	Squally. Midnight rain squalls.

South-westerly winds prevailed throughout the whole Bay blowing with an average force of 4·8. The weather was unsettled, with frequent heavy rain, over the Bay, but the winds were not very strong.

The following gives the coast observations for 8 A.M. of this day:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Remarks.
	"	"	"				Inches	
Diamond Island.	29·768	+·053	+·017	SW	12	10	0·19	
Akyab .	·671	+·037	—·022	SE	2	4	0·59	
Chittagong .	·641	+·013	—·016	SE	11	9	...	
Jessore .	·546	—·051	—·047	ESE	3	9	0·35	
Barisal .	·570	—·034	—·036	SSE	4	6	0·82	
Calcutta .	·534	—·052	—·036	E	6	8	0·07	
Saugor Island.	·498	—·065	—·073	SSE	10	10	0·70	Showery.
Shortt's Island.	·470	—·091	...	SW	15	10	1·70	Rainy.
Balasore .	·491	—·085	—·064	N	5	8	...	
False Point.	·527	—·038	—·049	W	10	10	1·70	Thunderstorm.
Puri . .	·524	—·040	...	NNW	10	10	1·39	
Cuttack .	·539	—·028	—·038	NW	4	10	0·32	Showery.
Gopalpur .	·533	—·025	?—·001	N	10	6	1·54	
Waltair .	·580	—·021	—·032	SW	11	10	0·50	Sea smooth.
Cocanada .	·610	—·003	—·024	WNW	8	10	0·09	
Masulipatam	·660	+·011	—·001	NNW	8	10	0·31	Distant lightning.

Pressure had decreased briskly over Deltaic Bengal and a small storm, within which pressure was between 0·06″ and 0·07″ below the normal, was crossing the coast between Saugor Island and Balasore. The winds were cyclonic, though not strong, and rain was increasing over Bengal.

June 24th.—The storm was advancing in a north-easterly direction through Bengal. The wind was fresh in force over the Bay, averaging 5·3, but the weather was generally quiet and only slightly affected by the storm. The following gives the 8 A.M. land observations in 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.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Cuttack	29·506	—·033	—·069	WSW	4	9	0·02	
False Point	·496	—·031	—·076	W	15	10	0·03	Distant lightning.
Shortt's Island	·469	—·001	...	SW	24	9	2·30	
Balasore	·482	—·009	—·059	Calm	3	8	0·12	
Saugor Island	·453	—·045	—·114	WNW	13	9	0·27	Sea slight.
Midnapore	·452	—·084	...	NW	3	10	0·28	
Calcutta	·414	—·120	—·151	NW	5	10	1·53	Showery.
Barisal	·485	—·085	—·115	SE	6	7	1·20	
Jessore	·432	—·114	—·155	SE	5	10	0·18	
Burdwan	·453	—·097	—·109	N	3	10	0·41	Showery.
Krishnagar	·440	—·117	...	E	5	10	0·07	Overcast with rain.
Faridpur	·495	—·101	...	SE	3	8	0·14	
Rampur Boalia	·443	—·098	...	ENE	2	10	0·12	
Raniganj	·459	—·080	...	NNE	2	6	...	
Berhampore	·467	—·098	—·102	E	1	8	0·27	Showery.
Naya Dumka	·486	—·078	...	ENE	3	9	...	
Purnea	·519	—·096	?—·046	NNE	3	10	...	
Patna	·501	—·059	—·046	ENE	4	6	...	
Arrah	·488	—·066	...	NE	3	5	0·05	
Gaya	·533	—·018	?—·004	SE	6	5	0·10	Duststorm. with rain.
Hazaribagh	·530	—·046	—·040	NE	6	10	0·09	Showery.
Ranchi	·510	—·072	—·038	NW	2	10	0·70	Duststorm with rain.
Chaibassa	·471	—·062	?—·025	WNW	2	8	0·34	Showery.
Bankura	·457	—·069	...	N	3	9	0·02	

Pressure was giving way briskly to rapidly over Bengal and the shallow storm had advanced north-eastward and was central a little to the east of Calcutta. The storm was of feeble intensity, but had given light to moderate rain to North-East India

June 25th.—Pressure had again decreased over Bengal. The following gives 8 A.M. data for this day :—

Station.	Pressure.			Wind		Cloud.	Rainfall.	Remarks.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Saugor Island	29·433	—·020	—·128	W	16	10	0·01	Distant lightning.
Midnapore	·442	—·010	...	SW	1	4	...	
Calcutta	·433	+·019	—·127	W	5	10	0·50	Showery.
Barisal	·451	—·034	—·144	SSE	6	10	0·52	Raining.
Jessore	·429	—·003	—·153	Calm	4	10	2·14	Continuous rain.
Burdwan	·423	—·030	—·135	W	2	10	0·03	Showery.
Krishnagar	·426	—·014	...	W	4	10	0·04	Overcast with rain.
Faridpur	·458	—·037	...	SE	3	9	0·10	
Rampur Boalia	·367	—·076	...	ENE	3	10	1·08	Gloomy.
Bogra	·446	—·061	?—·073	...	...	10	0·74	Drizzling.
Dinajpur	·457	—·050	—·127	E	11	10	4·40	Continuous rain.
Malda	·423	—·068	...	ENE	3	10	0·28	Overcast.
Naya Dumka	·434	—·052	...	NNW	2	10	...	Gloomy.
Berhampore	·406	—·061	—·159	Calm	1	10	0·93	Showery.
Ranigang	·416	—·043	...	WNW	1	9	0·65	Gloomy.
Bankura	·397	—·060	...	W	2	8	0·32	
Chaibassa	·434	—·037	—·060	WSW	3	8	...	

The storm had grown somewhat larger, but was unchanged in intensity. It had continued to give light to moderate rain to Bengal and the winds were feebly cyclonic over the province.

During the 26th and 27th the storm gradually filled up, at the same time moving very slowly in a northerly direction. The most important feature about the storm during the last days of its existence was the heavy rainfall which accompanied it in North Bengal. The following are the principal amounts reported on the 26th and 27th :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DINAJPUR	Setabganj	26th June	9·50
PABNA	Pabna	,, ,,	4·64
RANGPUR	Sunderganj	,, ,,	3·73
,,	Ulipur	,, ,,	2·[illegible]
JALPAIGURI	Alipore Duar	,, ,,	2·90

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Cooch Behar	Matabhanga	26th June	2·77
Rangpur	Rangpur	" "	2·68
Cooch Behar	Dinhatta	" "	2·65
Rangpur	Peerganj	27th "	8·07
Dinajpur	Ramganj	" "	8·02
"	Nawabganj	" "	7·80
"	Dinajpur	" "	7·80
Bogra	Sherpur	" "	6·82
Rangpur	Rangpur	" "	4·67
"	Bagdogra	" "	4·56
"	Gobindganj	" "	4·19
"	Bhawaniganj	" "	3·88
Dinajpur	Thakurgaon	" "	3·88
Bogra	Nowkhilla	" "	3·70
Dinajpur	Raiganj	" "	3·43
Bogra	Panchbibi	" "	3·31
Dinajpur	Balughat	" "	3·27
Bogra	Bogra	" "	2·87
Jalpaiguri	Debiganj	" "	2·64
Cooch Behar	Dinhatta	" "	2·61
"	Mickliganj	" "	2·61

The following data give the position, rate of advance, and course of the centre from the 21st to the 25th :—

Date.	Position of Centre at 8 A.M.		Distance travelled during interval.	Average hourly rate of motion during interval.	Course of the storm centre during 24 hours.
	Lat. N.	Long. E.			
	° ′	° ′	Miles.	Miles.	°
21st June	19 0	89 10	...	...	...
22nd "	21 0	88 0	155	6	N 28 W
23rd "	22 0	87 40	72	3	N 19 W
24th "	22 40	89 10	100	4	N 59 E
25th "	23 50	89 10	75	3	N 1 W

During the last four days of the month there was no barometric depression or storm of any importance, but the usual hot weather low pressure area in the north-west was persistently further north than is usual at this time of year.

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

In June 1898 there was no general snow in any part of the North-West Himalayas or on the Afghan mountains, but last year in June there was light snow over the higher mountains in Kashmir and the North-West Himalayas and this has been repeated during June 1900. The following are the records of snow in June so far as they have been received.

I.—Afghan Mountain Districts.

Chitral.

The Civil Surgeon, Chitral, has furnished the following information respecting the weather and snowfall in Chitral during the month of June :—

"During the first week in June snow fell on and about the higher passes in this district and also on the high hills to the west of the Yarkhun valley.

"On the 16th June I marched into Vedinhar to 11,500 feet, 10 miles south-west of the Boraghil pass in a snow-storm. The snow that fell did not lie. I crossed the Boraghil pass on the 17th June. There was no snow actually on the pass, but there were many large patches of still unmelted snow (height 12,460 feet).

"From the 18th June to the end of month the weather was fine and warm and the snow melting rapidly.

"On the 21st June I crossed the Shahjanali pass (height 14,600 feet). There was frozen snow on the pass varying from 5 feet to 50 feet in depth, some of which was quite fresh. This is most unusual, as the pass is usually clear early in June."

II.—Kashmir and Punjab Himalayas.

(1) Kashmir.

The following report has been received from Dr. A. Mitra, Meteorological Reporter, Kashmir State :—

"There was no snowfall on the hills in and round the valley of Kashmir in June.

"It also appears that there was no snow on the higher ranges near Minimarg, as the Tragbal, Burzil and other passes on the Gilgit road received no snow during that period.

"The Gulmarg observer reports that on the higher ranges of the Pir Panjal two feet of snow fell on the 2nd June, a total of about one foot on the 22nd and 25th June.

"The Dras observer reports that about two feet of snow fell in June on the higher ranges of the Zoji-la.

"The Skardu observer reports that light snow fell on the higher ranges of Baltistan on the 13th, 25th, and 26th June.

"The Kargil observer reports a slight fall of snow on the 13th June on the neighbouring mountains.

"From all reports it appears that there has not been any heavy snowfall on the higher mountains bordering the Kashmir valley in June. The Pir Panjal, between Kashmir and the Punjab plains, received a certain amount of snow during this period."

(2) CHAMBA.

The following account has been received from the Forest Ranger, Pangi Range, Chamba Forest Division.

"On the 14th of June snow fell on the higher hills of the Pangi Range. It was reported by travellers that the snowfall was 9 inches deep on the Sach pass which is 14,000 feet high. Heavy rain fell everywhere on the middle and lower elevations of the Pangi Range (including Chamba and Lahoul) on that date.

"On the 23rd June slight rain, accompanied by a high wind, fell over the whole district, including Chamba and Lahoul. Only traces of fresh snow were seen on the high hills.

"The weather was unusually cool during June.

"Villagers of the Pangi valley say that the snowfall on the higher hills in the Pangi Range during the past month was small in amount and not more than usual."

(3) SIMLA HILL DISTRICTS.

"Snow fell on the 1st, 5th, and 14th June on the higher ranges down to about 10,000 feet. The total fall averaged from 1 to 1½ feet. The falls were general over the higher ranges of Kanawar.

"There was at the end of June a large snow accumulation on the higher passes, and the villagers state that there is a larger accumulation of snow on their alpine fields, about 9,000 feet in elevation, than is usual at the end of June."

III. NORTH-WESTERN PROVINCES HIMALAYAS.

(1) GARHWAL.

No snow fell in June on the higher ranges in this district.

(2) ALMORA DISTRICT.

According to the report for the period 1st to 30th June received from the Commissioner of the Kumaun division, about 1½ feet of snow fell on the higher passes of Malla Johar during the period. No snow is reported to have been received in Malla Danpur, Malla Byans, Chandans, and Darma. The weather during the period was warmer and more cloudy than usual, and the snowfall less than in the corresponding period of the previous year.

Summary of snowfall information.—The information given in previous reviews showed that the snowfall of the preceding winter was nowhere excessive in the Western Himalayas and over the greater part of the area was normal in amount or in defect. It commenced later than usual, and continued somewhat later than usual. So far as can be judged from the data, the snowfall was generally in slight to moderate excess in the Simla hills and in some parts of Kashmir. The snow accumulation at the end of May was probably about normal in Kashmir, Kumaun and Garhwal and also in Baluchistan, in moderate excess in Bushahr and in moderate to considerable defect in Afghanistan, Chitral and the greater part of the Punjab Himalayas.

The snowfall reports for June are few in number and indicate that there has been even less snow than usual in the Western Himalayas.

As no report has been received from officers in the North-West Frontier, it is almost certain no snow has fallen on the higher ranges of North Afghanistan.

No information has been received from Assam and Sikkim.

Summary of special Storm Reports.

A number of local disturbances occurred during the month, of which reports have been received from various observing stations and the principal facts with reference to them are detailed below. Most of these local disturbances were duststorms and thunderstorms such as almost invariably accompany the advance and establishment of the south-west monsoon over the country.

1st.—Duststorm with thunder at Allahabad. The storm commenced about 8-15 P.M. and lasted about one hour. It came up from west.

A thunderstorm at Gulmarg between 8 A.M. and 3-30 P.M. Hail occurred during part of the storm and the wind was very high.

Thunderstorm at Srinagar between 10 A.M. and 1-50 P.M. Rain fell in the valley and snow on the highest hills.

2nd.—A duststorm passed over Jaipur between 9-10 P.M. and 11 P.M.

Thunderstorm at Gulmarg between 8 A.M. and 2-30 P.M. with hail and rain.

Duststorm with rain at Mainpuri between 6-25 P.M. and 6-40 P.M.

Duststorm at Pachmarhi at 2-30 A.M. lasting three minutes.

A severe duststorm with thunder passed over Cawnpore between 7 P.M. and 11-30 P.M.

3rd.—A duststorm at Jaipur between 4-35 P.M. and 4-45 P.M.

A severe thunderstorm passed over Agra at 4 P.M. lasting 6 hours.

Duststorm with some rain at Khandwa at 6 P.M.

Severe duststorm at Hoshangabad at 3 P.M. It abated in about 20 minutes.

Violent duststorm with rain at Raipur at 5 P.M. The storm lasted 10 minutes, was accompanied with rain and did much damage.

4th.— A duststorm appeared in south-west and passed over Ajmer at 4 P.M. The storm lasted 45 minutes.

Duststorm at Pachmarhi at 4-35 P.M. lasted 5 minutes.

A violent duststorm with thunder and a little rain occurred at Udaipur about midnight.

Thunderstorm with light rain and high winds passed over Saugor between 2-35 P.M. and 2-58 P.M.

Very heavy duststorm at Hoshangabad began at 2 P.M. and lasted 25 minutes.

5th.—A thunderstorm with strong winds passed over Belgaum.

Very heavy duststorm at Hoshangabad lasting about half-an-hour.

6th.—A heavy duststorm was experienced at Hoshangabad at 4 P.M. The storm abated in 25 minutes.

Severe thunderstorm at Udaipur at 2-48 P.M. travelling from west-north-west and lasting 25 minutes.

A duststorm visited Ajmer at 4-45 P.M. The storm only lasted about 15 minutes.

A duststorm with lightning and rain at Khandwa at 6-30 P.M.

A duststorm visited Jodhpur at 6-12 P.M. The storm lasted about 15 minutes.

7th.—Thunderstorm with some rain at Khandwa at 6-30 P.M.

Thunderstorm at Srinagar, noon to 3 P.M.

Very heavy storm at Hoshangabad. The storm passed from south-west to north-east at 3-10 P.M. and lasted about half-an-hour.

Severe thunderstorm at Gulmarg with rain from 10 A.M. to 4-30 P.M.

8th.—Thunderstorm at Jaipur from 10 P.M to 10-50 P.M.

Duststorm at Jaipur from 5-30 P.M. to 6-40 P.M.

Thunderstorm at Gulmarg from 10-30 A.M. to 2-30 P.M. No rain fell.

Duststorm at Pachmarhi at 2-20 P.M. The storm lasted 10 minutes.

Duststorm with thunder, lightning, and rain at Khandwa at 6 P.M.

Violent thunderstorm with much lightning and heavy showers of rain at Neemuch between 2-3 P.M. and 2-30 P.M.

A very heavy storm with rain passed over Hoshangabad at 3-20 P.M. Half-an-inch of rain fell and the storm lasted about half-an-hour.

9th.—Severe thunderstorm with gales of wind and hail and rain at Gulmarg between 9-30 A.M. and 4-30 P.M.

A heavy storm passed over Hoshangabad from west to east. The storm abated in about 25 minutes.

10th.—Severe thunderstorm with heavy rain at Aurangabad from 6-15 P.M. to 7-10 P.M.

Duststorm with thunder at 5-30 P.M. at Khandwa.

11th.—Thunderstorm at Waltair between 4 P.M. and 6 P.M.

Very heavy storm at Hoshangabad at 3-30 P.M. It lasted half-an-hour.

12th.—Thunderstorm at Khandwa at 6-30 P.M.

A very heavy duststorm passed over Hoshangabad at 1-30 P.M. No rain fell.

A duststorm at Ajmer at 2 P.M. The storm only lasted 5 minutes.

13th.—Duststorm with rain at Pachmarhi at 6-30 P.M. The storm lasted 10 minutes.

Duststorm with rain at Khandwa at 8 P.M.

A severe duststorm passed over Lahore at 6 P.M. and lasted half-an-hour.

A violent dust and thunderstorm at Srinagar,

The storm began at 10 A.M. and lasted all day.

A severe thunderstorm at Gulmarg between 10 A.M. and 7-30 P.M.

A heavy duststorm at Hoshangabad at 2 P.M. The storm passed from west to east and only lasted 15 minutes. Later at 5 P.M. a very heavy duststorm passed over lasting about 20 minutes.

14th.—Duststorm at Jaipur from 4-30 P.M. to 6 P.M.

Thunderstorm at Burdwan between 12-30 P.M. and 6-15 P.M.

Severe duststorm at Hoshangabad at 3 P.M. passing from north to south; it abated in 10 minutes.

Duststorm at Roorkee began about 2 P.M. It was followed by a furious hailstorm, the hailstones weighing about 2 chhatacks. This lasted for 10 minutes, the storm passing on towards the west.

15th.—Dust and thunderstorm at Allahabad. The storm came up from west at 7-20 P.M. and lasted till 8 P.M.

Thunderstorm at Srinagar from 4 P.M. to 9 P.M. Light rain fell.

Thunderstorm at Gulmarg from noon to 4 P.M. Fresh snow fell on the Affervatta peak.

Very severe duststorm at Hoshangabad at 4-10 P.M. lasting 15 minutes. No rain fell.

16th.—Severe duststorm at Hoshangabad at 2 P.M. lasting ten minutes. No rain fell.

17th.—Duststorm at Mainpuri about 4 P.M.

A duststorm occurred at Allahabad between 4-40 P.M. and 11 P.M.

Severe duststorm at Saugor between 4-40 P.M. and 5-15 P.M.

18th.—A violent duststorm passed over Agra at 3 P.M. uprooting and breaking numerous trees.

Thunderstorm at Jaipur between 4-55 P.M. and 5.15 P.M.

A severe duststorm at Hoshangabad at 1-30 P.M. The storm lasted 10 minutes.

19th.—A duststorm at Ajmer at 4 P.M. The storm lasted 15 minutes.

Thunderstorm at Jaipur between 2-35 P.M. and 2-45 P.M. and another between 4-45 P.M. and 5-20 P.M.

Very heavy duststorm at Hoshangabad at 2 P.M. lasting half-an-hour. The storm came up from north-east, another storm followed at 5-10 P.M. and lasted 45 minutes. A few drops of rain accompanied the storm.

20th.—Duststorm at Jaipur between 3-55 P.M. and 4-35 P.M.

Very heavy duststorm at Hoshangabad at 1-2 P.M. lasting 45 minutes.

At 7-10 P.M. another heavy duststorm passed over Hoshangabad when rain fell.

21st.—Thunderstorm at Srinagar between 3 P.M. and 8 P.M. Slight rain fell.

Dust and thunderstorm at Allahabad between 2-30 P.M. and 4-30 P.M.

Very severe duststorm at Hoshangabad at 3-20 P.M. abating in about 25 minutes. The storm passed from north-east to south-west.

Severe duststorm at Jubbulpore at 2-34 P.M. lasting 15 minutes. Light rain fell.

Thunderstorm with hail and rain occurred at Gulmarg between 11-50 A.M. and 7 P.M.

22nd.—Thunderstorm at Srinagar between 4 P.M. and 7 P.M.

Thunderstorm at Gulmarg between 3 P.M. and 9 P.M.

24th.—Severe duststorm at Lahore at night lasting about 2 hours.

Very severe thunderstorm at Hoshangabad at 1-30 P.M. lasting about 20 minutes.

25th.—Thunderstorm at Gulmarg between 11 A.M. and 9-30 P.M. Hail and rain fell.

Duststorm at Srinagar between 5-30 P.M. and 8 P.M. Snow fell on the adjacent mountains.

Duststorm at Mainpuri at about 5 P.M.

Very heavy duststorm at Hoshangabad at 2-10 P.M. and 5-6 P.M. lasting 25 minutes each. A little rain fell.

26th.—Duststorm at Sialkot between 9-50 P.M. and 11-25 P.M. The storm was followed by a little rain.

Severe duststorm from west at Lahore lasting half-an-hour.

27th.—Severe thunderstorm at Mainpuri at about 4 P.M.

28th.—Thunderstorm at Khandwa at 7 P.M.

Heavy duststorm at Hoshangabad at 2 P.M. lasting 15 minutes.

29th.—Very heavy duststorm at Hoshangabad at 3-10 P.M. lasting 20 minutes.

Duststorm with rain at Pachmarhi at 4-12 P.M. lasting 10 minutes.

Thunderstorm at Gulmarg between 2 P.M. and 4-30 P.M.

30th.—A very heavy duststorm passed over Hoshangabad at 2-40 P.M. The storm lasted 20 minutes.

Thunderstorm at Salem at 3-30 P.M. lasting till 4-50 P.M.

A series of duststorms occurred in Bombay during the first week of the month culminating in a severe thunderstorm on the 7th. The duststorm at Lahore on the

evening of the 13th was one of the worst storms experienced in Lahore for many years. The storm came up from west and the strong winds did considerable damage. This duststorm was also felt in all its intensity at Ferozepore and at Nahan where it was accompanied with hail, the hailstones weighing about 5 tolas. At about midnight on the same day a very severe storm was felt at Dehra Dun where much damage was done and at Mussooree a terrific storm ranged from 1 A.M. to 3 A.M. on the 14th.

Hailstorms.—The hailstorm which passed over Agra at 6 P.M. on the 2nd was very severe, the stones having been as large as pigeons' eggs. This storm was also felt at Aligarh. A violent hailstorm passed over Kulu on the night of the 21st to 22nd, the hailstones weighing one chattack each.

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

Arabian Sea.—During the first nine days of the month pressure was very uniform over the Arabian Sea and the air motion over that area was hence light in force and irregular in direction, except in the extreme south and along the Indian Coast where winds from between west and north-west generally obtained. The mean strength of the winds ranged between 2·5 and 3·8 and was on the mean of the whole period 1·3 below the normal of the month. Weather was fine with passing clouds throughout the period except in the south, south-west and south-east, where it was feebly disturbed with occasional rain squalls. Winds intensified considerably during the next two days and averaged 5·0 on the morning of the 11th as compared with 4·5, their normal intensity in June. Weather remained fine over the whole area except the south and south-east where it had become more unsettled and was now squally with much rain and lightning. No important change occurred during the next two days except that winds fell off slightly in strength and were irregular in direction in the south-east with a slight tendency to the initiation of a cyclonic circulation. On the 13th moderate to strong winds from between west and south prevailed generally over the Arabian Sea and were giving very squally weather and a rough sea over the south and south-east. Winds increased slightly in strength during the day and averaged 4·8 in force from the 14th to the 16th. Strong winds obtained over the whole area during the next two days, averaging 5·3 in force or 0·8 above the normal. They were strongest on these two dates in the centre and west where they ranged between 6 and 9. Weather was showery and squally in the south and south-east and cloudy over the rest of the sea. Gradients decreased rapidly during the 18th and winds at the same time fell off considerably in strength. The mean force, as derived from the data of 23 vessels, averaged 4·3 on the 19th and 4·0 on the 20th. No important change took place during the next five days, the current remaining below its normal strength. The pressure changes during the next two days were such as tended to give increased gradients and the winds increased again in force and were slightly stronger than usual during the period from the 27th to 30th. On the mean of the whole month the air movement over the Arabian Sea was 0·4 below the normal.

It may be noted that the meteorology of the month in the Arabian Sea was characterized by several abnormal features of which the following were the most noteworthy:—

(1) There was a delay of about a week in the advance of the monsoon current over the south and south-east of the sea.

(2) The advance was carried out much more quietly than usual.

(3) The failure of the current to extend rapidly northwards up the east of the sea.

(4) The current was unsteady, varying considerably in intensity from day to day.

(5) So far as can be judged from the available data winds were more westerly than usual in the southern half of the Arabian Sea and were hence directed to the Malabar and South Konkan Coasts.

(6) The prevalence of finer weather than usual throughout nearly the whole month over the centre and west of the sea.

Bay of Bengal.—At the beginning of the month light unsteady winds prevailed along the Arakan Coast and moderate to strong south-west winds over the remainder of the Bay. Weather was generally fine with a moderate to high sea. The mean intensity of the air movement, as derived from the data of 13 vessels, was 4·2 or 0·2 above the normal of the month. The pressure changes during the next two days were such as tended to diminish the barometric gradient. Winds at the same time fell off and averaged only 2·9 in force from the 3rd to the 5th. There was a feeble tendency to the generation of a depression in the south-west of the Bay on the 3rd, but it failed to develop. Very variable airs and calms prevailed over the north, centre and east of the Bay on the 4th and the 5th and light to fresh winds from between south and west over the south, south-west, and south-east. Conditions changed largely during the next four days more especially over the south of the Bay where gradients increased considerably in intensity. The winds rose rapidly in strength and were of average force, 4·5, on the 7th, 5·1,

on the 8th and 4·6 on the 9th. They were on the 9th strongest in the extreme south-west of the Bay where they ranged in force between 4 and 6 and lightest near the Pegu Coast where they were of forces 2 to 3. Weather was unsettled with squalls in the neighbourhood of Ceylon and the disturbed conditions were extending north-eastwards up the centre of the Bay. Winds increased rapidly during the day and on the morning of the 10th were 1·0 stronger than usual. The disturbed weather had advanced as far as Lat. 16° or 17°N. over the centre and east of the Bay. To the north of the parallel of 17°N. weather was overcast with occasional squalls. A high to rough sea was running generally. As is frequently the case, a storm was generated in front of the advancing monsoon winds and disturbed squally weather prevailed off the South Arakan Coast on the 10th. These unsettled conditions intensified rapidly and advancing north-westwards passed inland across the Orissa Coast on the morning of the 12th. The storm was of considerable intensity and occasioned very heavy weather in the northern half of the Bay, several vessels reporting winds of forces 8 to 9 with "fierce squalls," "incessant rain," and a "high cross sea." The air movement was 33 per cent. stronger than usual on the 11th and 45 per cent. stronger on the 12th. An unusually strong monsoon obtained generally over the Bay during the next seven days.

The strongest winds during the period were of force 9 and the mean wind force for the Bay varied between 6·1 on the 14th and 4·5 on the 19th. Important changes occurred from the 19th to the 21st in the northern half of the Bay where pressure became uniform and winds took off in intensity. A feeble storm was generated over this area of feeble winds during the 21st and 22nd. It advanced inland across the West Bengal Coast as a feeble disturbance on the morning of the 23rd at 8 A.M. of which date the average strength of the air motion, as deduced from the data of 28 vessels, was 4·8 or 0·8 above the normal. No significant change took place during the remainder of the month, but the monsoon current remained nearly 20 per cent. above its normal intensity.

The monsoon current in the Bay was on the mean of the month 0·6 stronger than usual.

From the preceding summary of the weather in the Bay it will be seen that the monsoon current was not only timely in its advance but also at least 15 per cent. stronger than usual in June over this area.

Equatorial Belt.—There are no data available for the eastern half of this region. In the western half of this area the south-east trades were very feeble from the 1st to the 7th or 8th and again from the 18th to the 24th. There was a considerable increase in their strength towards the end of the month, the vessels passing through the belt on the 29th and 30th experiencing winds of force 5 to 8. The data for the Seychelles and Zanzibar indicate that the winds were not only lighter than usual at these two stations but contained a strong easterly element, thus showing that there was an abnormal set of the south-east trades current to East Africa.

Temperature of the Air.

The mean temperature conditions of the month of June 1900 were very largely determined by the large and important delay in the setting in of the monsoon currents along the West Coast and the consequent deficiency in the rainfall over the Peninsula, the central parts of the country and North-Western India.

The mean maximum temperature of the month was above the normal over the whole Indian area except Bengal, and parts of Assam, Burma, the extreme south of the Peninsula, the east of Ceylon, and the West coast of India. The deficiency was generally small and unimportant, but exceeded 2° at some central and western stations in Bengal. This is shown in the following table:—

Station.	Mean maximum temperature.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°	°
Purnea	90·1	92·3	—2·2
Patna	94·5	96·6	—2·1
Burdwan	92·0	94·1	—2·1

The excess was large in the interior of Northern India and the Deccan and was absolutely greatest over Upper

Sind, Central India, the Central Provinces, Berar, and the adjacent parts of Bombay. The excess was more than 6° in amount at the stations for which comparative data are given below :—

Province.	Station.	Mean maximum temperature. Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
		°	°	°
Upper Sind	Jacobabad	118·0	111·9	+6·1
Central India	Indore	101·5	94·2	+7·3
	Sutna	106·0	98·8	+7·2
Central Provinces.	Seoni	101·9	93·6	+8·3
	Hoshangabad	106·2	98·0	+8·2
	Jubbulpore	104·8	96·7	+8·1
	Nagpur	105·6	97·8	+7·8
	Chanda	104·5	97·7	+6·8
	Khandwa	103·7	97·3	+6·4
Berar	Akola	104·1	97·5	+6·6
	Amraoti	103·2	96·7	+6·5
North Bombay.	Bhavnagar Para	105·8	98·2	+7·6
	Ahmedabad	107·0	99·6	+7·4
	Malegaon	101·0	94·5	+6·5

Very hot and dry periods occurred over Central and North-West India on the 13th and 14th and again between the 20th and 23rd, when the highest maxima were generally recorded, and the day temperatures were between 10° and 15° above the normal. The following gives the actual maximum temperature recorded at the hottest stations during the month :—

Station.	Highest maximum temperature recorded in June 1900.	Date on which recorded.
	°	
Mainpuri	113·2	1st.
Jhansi	112·9	30th.
Roorkee	112·7	1st.
Allahabad	112·6	18th.
Lucknow	112·3	1st.
Montgomery	119·0	28th.
Lahore	118·6	21st.
Khushab	118·4	22nd.
Sialkot	117·5	17th and 22nd.
Mooltan	117·4	13th.
Sirsa	117·3	13th and 14th.
Dera Ismail Khan	117·2	20th, 21st and 22nd.
Rawalpindi	116·5	21st.
Jacobabad	124·5	14th.
Hyderabad (Sind)	122·2	14th.
Pachpadra	121·8	14th.
Jodhpur	118·8	14th.
Bikaner	118·3	14th.
Deesa	118·1	13th.
Chanda	114·7	1st.
Ahmedabad	113·7	13th.
Nagpur	112·7	4th.
Akola	112·6	6th.
Raipur	112·0	4th.
Nellore	114·8	3rd.
Cuddapah	111·3	3rd and 4th.
Kurnool	111·3	4th.

The hottest period in Burma, Bengal, the Central Provinces and the Peninsula occurred generally during the first week of the month, and in Assam, the North-Western Provinces, the Punjab and Rajputana generally in the second or third weeks of the month. The following gives the highest maximum temperatures recorded in the different provinces or divisions with the dates on which they occurred :—

Province or Division.	Station.	Highest maximum temperature recorded in June 1900.	Date on which recorded.
		°	
Burma	Minbu	103·6	2nd.
Assam	Silchar	99·6	12th.
Bengal	Naya Dumka	102·5	1st.
Orissa	Cuttack	105·4	2nd, 6th, 8th, 9th and 19th.
Bihar	Gaya	111·3	1st.
Chota Nagpur	Daltonganj	111·1	1st and 2nd.
North-Western Provinces.	Mainpuri	113·2	1st.
Punjab	Montgomery	119·0	28th.
Sind	Jacobabad	124·5	14th.
Rajputana	Pachpadra	121·3	14th.
Gujarat	Ahmedabad	113·3	13th.

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in June 1900.	Date on which recorded.
		°	
CENTRAL INDIA	Nowgong	111·0	9th, 12th and 22nd.
CENTRAL PROVINCES	Chanda	114·7	1st.
BERAR	Akola	112·6	6th.
WEST COAST	Ratnagiri	93·9	3rd.
BOMBAY DECCAN	Sholapur	109·2	4th.
MYSORE	Chitaldroog	99·2	4th.
MADRAS COAST	Nellore	114·8	3rd.
MADRAS DECCAN	Hanamconda	111·7	4th.
SOUTH INDIA	Tinnevelly	105·5	4th.

The mean minimum temperature of the month exhibited the same general characteristics as the maximum temperature. The mean minimum temperatures were normal or in trifling defect over Burma, North-East India and parts of the coasts of the Peninsula, but were excessive elsewhere, more particularly over the central districts of India and the interior of North-West India. The excess was more than 4° at the stations for which comparative data are given below :—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°	°
Bikaner	89·2	82·5	+6·7
Mooltan	88·7	82·3	+6·4
Sialkot	85·7	80·1	+5·6
Sutna	86·5	81·0	+5·5
Jhansi	89·2	83·9	+5·3
Ajmer	85·3	80·0	+5·3
Jaipur	85·2	80·1	+5·1
Saugor	82·1	77·1	+5·0
Sambhar	86·4	81·6	+4·8
Ludhiana	84·8	80·1	+4·7
Jubbulpore	82·8	78·2	+4·6
Nowgong	87·3	82·7	+4·6
Sirsa	87·3	82·9	+4·4

The mean temperature of the month was below the normal by small amounts in parts of Bengal, East Ceylon and locally at a few places in Assam, Burma, and on the West Coast. The deficiency was greatest at Burdwan (—1°·2) and at Purnea (—1°·0.) Over the whole of the remainder of India the mean temperature of the month was in excess. The excess was more than 2° in amount over nearly the whole of North-Western and Central India, the interior of the Peninsula and part of the Madras Coast, and was more than 4° in amount at the numerous stations for which comparative data are given in the following table :—

STATION.	MEAN DAILY TEMPERATURE.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°	°
Jubbulpore	93·8	87·4	+6·4
Sutna	96·3	89·9	+6·4
Nagpur	93·6	87·9	+5·7
Seoni	90·1	84·5	+5·6
Bikaner	99·9	94·3	+5·6
Ajmer	95·6	90·1	+5·5
Indore	90·0	84·6	+5·4
Sambhar	96·9	91·6	+5·3
Ahmedabad	95·4	90·1	+5·3
Jhansi	98·8	93·5	+5·3
Saugor	93·1	87·8	+5·3
Hoshangabad	93·8	88·5	+5·3
Mooltan	99·7	94·5	+5·2
Khandwa	92·6	87·7	+4·9
Amraoti	91·0	86·4	+4·6
Jaipur	96·2	91·4	+4·8
Sialkot	97·6	92·9	+4·7
Nowgong	97·2	92·6	+4·6
Chanda	93·1	88·5	+4·6
Neemuch	92·2	87·8	+4·4
Jacobabad	102·0	97·7	+4·3
Malegaon	88·9	84·6	+4·3
Akola	91·5	87·4	+4·1
Lahore	96·8	92·7	+4·1

The mean temperature of the month was more than 95°

in nine of the 57 meteorological divisions of the Empire. Comparative data are given below for these nine divisions :—

Division.	Mean daily temperature.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°	°
North-Western Provinces, Central	95·8	92·0	+3·8
" West	95·1	93·0	+2·1
South Punjab	96·3	93·0	+3·3
Central "	96·8	92·7	+4·1
Punjab Submontane	96·1	92·8	+3·3
West Punjab	97·3	94·3	+3·0
Sind	96·0	92·9	+3·1
Rajputana East, and Central India West	95·8	91·1	+4·7
West Rajputana	97·1	91·5	+5·6

At the hill stations both the day and night temperatures were generally more or less above the normal, except at those in Kashmir and Baluchistan where both were in considerable defect. The following gives data for the stations in these two areas :—

Province or Division.	Station.	Variation from Normal of		
		Mean maximum temperature, June 1900.	Mean minimum temperature, June 1900.	Mean daily temperature, June 1900.
		°	°	°
Kashmir	Srinagar	—4·3	—2·8	—3·6
	Leh	—3·5	—2·7	—3·1
Baluchistan	Chaman	—1·3	—2·4	—1·9
	Quetta	+0·5	—3·8	—1·7

The following is a brief summary of the more important variations of the mean temperature conditions of the month from the normal :—

(1) The day temperature was below the normal and the night temperature normal in Bengal, so that the mean temperature was slightly below the average.

(2) Both the day and night temperatures and hence also the mean temperature were about normal in Burma.

(3) Both the day and night temperatures and hence also the mean temperature were in trifling defect over the Mid-West Coast.

(4) The day and night temperatures and hence also the mean temperature of the month were above the normal over the remainder of India.

(5) Both in the day and the night temperatures and hence also in the mean temperature the excess was considerable to large over the central districts of India and the interior of North-West India.

(6) Both the day and night temperatures and hence also the mean temperature of the month were below the normal in Baluchistan and Kashmir.

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

Province.	Division.	Actual temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	85·7	75·7	80·7	10·0	17·9	+0·9	+1·9	—1·0
	Lower Burma (Deltaic)	85·6	77·9	81·8	7·7	16·2	—0·4	+1·1	—1·5
	Central do.	90·2	76·4	83·3	13·8	26·3	+0·5	+0·6	—0·1
	Upper do.	92·7	76·9	84·8	15·8	28·4	+0·6	+0·5	+0·1
Bengal and Assam	Eastern Bengal	88·4	77·1	82·8	11·3	24·8	+0·4	+0·3	+0·1
	Assam (Surma)	90·8	76·6	83·7	14·2	29·3	+2·1	+0·5	+1·6
	Do. (Brahmaputra)	87·7	76·8	82·3	11·0	26·1	+0·1	+0·3	—0·2
	Deltaic Bengal	91·4	79·3	85·4	12·0	26·7	—0·1	+0·2	—0·3
	Central do.	91·6	78·6	85·1	13·1	29·5	—1·2	+0·1	—1·3
	North do.	88·7	76·4	82·6	12·3	29·0	+0·6	+0·2	+0·4
	Bengal Hills	70·7	54·0	62·4	16·7	30·1			
	Orissa	92·5	81·2	86·9	11·2	27·0	+0·5	+1·0	—0·5
	Chota Nagpur	95·4	78·4	87·0	17·0	36·7	—0·2	+0·8	—1·0
	Bihar (South)	97·2	81·1	89·2	16·1	36·1	—1·9	+1·0	—2·9
	Do. (North)	92·7	78·7	85·8	14·0	32·2	—1·2	+0·4	—1·6

Province.	Division.	Actual temperature. Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Variation from normal of month of Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	North-Western Provinces (East)	103·1	83·6	93·4	19·5	40·0	+1·4	+1·0	+0·4
	Oudh (South)	102·6	82·9	92·8	19·7	39·0	...	...	...
	Do. (North)	100·3	80·6	90·5	19·7	35·1	+3·1	+1·5	+1·6
	North-Western Provinces (Central)	106·0	85·6	95·8	20·5	38·8	+4·3	+3·2	+1·1
	Do. do. (West)	105·4	84·7	95·1	20·7	37·3	+2·3	+1·9	+0·4
	Do. do. (Submontane, East).	97·2	79·7	88·5	17·5	35·0	−0·5	−0·1	−0·4
	Do. do. (Submontane, West).	99·8	79·3	89·6	20·6	45·1	+1·3	+1·5	−0·2
	Do. do. (Hills)	76·9	60·4	68·7	16·5	33·9	+0·9	+0·3	+0·6
Punjab	Punjab (South-East)	104·0	85·7	94·9	18·3	38·1			
	Do. (South)	107·1	85·4	96·3	21·7	43·9	+2·1	+4·4	−2·3
	Do. (Central)	109·8	83·8	96·8	26·0	42·7	+4·2	+4·0	+0·2
	Do. (Submontane)	107·5	84·5	96·1	23·0	40·5	+3·1	+3·4	−0·3
	Do. (Hills)	81·1	57·3	69·2	23·8	42·3	−0·8	−0·3	−0·5
	Do. (North)	106·9	77·0	92·0	29·9	46·5	+2·8	+1·4	+1·4
	Do. (West)	109·5	85·0	97·3	24·5	42·2	+2·5	+3·4	−0·9
Bombay and Malabar Coast Districts (Madras).	Malabar	85·8	76·0	80·9	9·7	19·5	+2·1	+1·4	+0·7
	Madras (South Central)	94·4	74·8	84·6	19·7	30·5	+2·4	+2·3	+0·1
	Coorg	72·6	64·5	68·5	8·1	23·3	+0·5	+1·3	−0·8
	Mysore	85·8	68·0	77·2	17·2	21·4	+2·3	+1·2	+1·1
	Konkan	86·8	78·3	82·6	8·6	20·9	+0·7	+0·7	0
	Bombay Deccan	92·7	72·5	82·7	20·2	37·6	+4·2	+1·2	+3·0
	Hyderabad (North)	100·6	77·5	89·1	23·1	41·2	...	...	...
	Khandesh	98·5	74·8	86·7	23·7	38·6	+6·0	+1·4	+4·6
Central Provinces and Berar.	Berar	103·7	78·9	91·3	24·8	38·8	+6·6	+2·1	+4·5
	Central Provinces (West)	105·2	81·5	93·3	23·7	37·5	+7·5	+3·1	+4·4
	Do. (Central)	103·8	81·2	92·5	22·6	37·7	+7·2	+3·7	+3·5
	Do. (East)	100·1	81·2	90·7	19·0	39·4	+3·1	+1·7	+1·4
Bombay (North)	Gujarat	101·5	82·9	92·2	18·6	26·9	+4·8	+3·1	+1·7
	Kathiawar and Cutch	99·2	80·7	89·9	18·5	29·8	+3·8	+0·9	+2·9
	Sind	107·9	84·1	96·0	23·8	39·1	+4·6	+1·6	+3·0
	Baluchistan Hills	95·8	59·4	77·6	36·3	50·7	−0·4	−3·1	+2·7
Rajputana and Central India.	Central India (East)	104·6	83·2	93·9	21·5	36·6	+6·2	+4·2	+2·0
	Rajputana (East), Central India (West)	106·5	85·1	95·8	21·5	36·2	+5·1	+4·3	+0·8
	Do. (West)	108·5	85·7	97·1	22·8	41·7	+4·5	+6·7	−2·2
Madras	East Coast (North)	93·2	80·7	87·0	12·4	27·3	+1·5	−0·1	+1·6
	Hyderabad (South)	97·7	76·7	87·2	21·0	39·2	+3·6	+2·1	+1·5
	Madras (Central)	99·6	79·2	89·4	20·4	35·8	+3·3	+2·0	+1·3
	East Coast (Central)	101·0	81·5	91·3	19·5	37·7	+1·4	+0·4	+1·0
	Do. (South)	100·5	81·5	91·0	19·1	31·7	+2·3	+1·6	+0·7
	Madras (South)	94·8	78·0	86·4	16·8	27·4	−0·5	+0·7	−1·2

The temperature conditions of the month may be divided into the following periods, the main temperature characteristics of which were the same. From the 1st to the 6th the temperature was low in parts of Northern India and high elsewhere; from the 7th to the 11th the mean temperature was excessive practically everywhere; from the 12th to the 19th it was lower than usual in parts of the east of the Peninsula and in North-East India, due to the rainfall from a storm from the Bay; from the 20th to the 22nd it was again excessive practically everywhere and from the 23rd to the end of the month it was higher than usual over the north-western and central parts of the country and low for the time of year elsewhere.

On the 31st May there had been showers in North-East India and the mean temperature was low on the 1st June over Assam and Bengal. There was also a small area of lower temperature than usual over Gujarat. Elsewhere the temperature was excessive owing to the

dry weather of the last few days of May. The following gives variation data for the 1st for all the divisions of India and shows the temperature conditions existing on that day :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st June.	Mean minimum temperature, 1st June.	Mean daily temperature, 1st June.
	°	°	°
Burma	+4·2	+1·5	+2·9
Assam	—4·6	—4·7	—4·7
Bengal	+0·6	—0·8	—0·1
Orissa	—0·6	+2·7	+1·1
Bihar	+0·9	—1·9	—0·5
Chota Nagpur	+2·9	+7·1	+5·0
North-Western Provinces and Oudh	+3·7	+8·4	+6·1
Punjab	+3·5	+4·2	+3·9
Sind	+1·0	+1·1	+1·1
Rajputana	—0·4	+3·0	+1·3
Gujarat	—1·5	—0·9	—1·2
Central India	+2·3	+4·2	+3·3
Central Provinces	+4·6	+4·7	+4·7
Berar	+5·4	+0·5	+3·0
West Coast	+2·2	+2·6	+2·4
Bombay Deccan	+7·6	+0·1	+3·9
Mysore	+4·9	+1·3	+3·1
Madras Coast	+2·6	+0·3	+1·5
Madras Deccan	+7·5	+5·8	+6·7
South India	+2·1	+0·7	+1·4

Duststorm and thunderstorms gave rain to the Upper India hills on the 1st, and this was accompanied with a brisk fall of temperature in Baluchistan and on the North-West Himalayas. This fall extended over the West Punjab and thence spread eastward down the Gangetic Plain. As a consequence the mean temperature was reduced to below the normal all over Northern India by the 3rd. The following table gives variation data for Baluchistan and the different provinces of Northern India, and shows the extension of the low temperatures eastward :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	1st June.	2nd June.	3rd June.
	°	°	°
Baluchistan	—3·5	—5·3	—2·6
Punjab	+3·9	—0·5	—2·0
Rajputana	+1·3	+1·9	+0·4
Central India	+3·3	+1·4	+1·4
North-Western Provinces and Oudh	+6·1	+2·2	—4·8
Chota Nagpur	+5·0	+4·2	—4·3
Orissa	+1·1	+3·6	—3·6
Bengal	—0·1	—3·3	—4·6
Bihar	—0·5	—4·1	—4·1
Assam	—4·7	—6·6	—0·7

The hottest area during these three days was the Madras Deccan where the following variations from the normal were registered :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	1st June.	2nd June.	3rd June.
	°	°	°
Madras Deccan	+6·7	+6·0	+7·4

Comparatively little change occurred during the next three days except that the area of low temperature in Northern India gradually diminished both in extent and intensity, while the high temperature areas correspondingly increased. During the whole of this period the greatest excess of temperature was steadily reported from the interior divisions of the Peninsula. The following gives variation data for the North-West Provinces and for the Deccan districts from the 4th to the 6th and shows the main features of the temperature distribution relatively to the normal at this time :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	4th June.	5th June.	6th June.
	°	°	°
North-Western Provinces and Oudh	—7·2	—3·7	—1·7
Bombay Deccan	+7·6	+7·6	+6·3
Madras Deccan	+8·6	+5·5	+3·8

This was the hottest period during the month in the Deccan districts and the following gives comparative data of the maximum temperatures at those stations at which the excess was more than 10° between the 1st and the 6th :—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date	Variation of actual from normal of date.
		°	°	°
2nd June	Madras	100·5	99·3	+10·2
3rd ,,	Belgaum	97·3	84·9	+12·4
,, ,,	Kurnool	109·8	99·5	+10·3
4th ,,	Belgaum	99·3	84·0	+15·3
,, ,,	Poona	104·0	91·7	+12·3
,, ,,	Kurnool	111·3	99·1	+12·2
,, ,,	Sholapur	109·2	97·2	+12·0
,, ,,	Madras	110·0	99·0	+11·0
,, ,,	Hyderabad, Deccan	108·9	97·9	+11·0
,, ,,	Cuddapah	111·3	100·9	+10·4
5th ,,	Belgaum	97·3	83·3	+14·0
,, ,,	Sholapur	108·7	96·3	+12·4
,, ,,	Poona	103·5	91·2	+12·3
,, ,,	Bijapur	107·7	95·4	+12·3
,, ,,	Kurnool	110·3	98·3	+12·0
,, ,,	Malegaon	110·3	98·6	+11·7
,, ,,	Ahmednagar	105·9	94·7	+11·2
6th ,,	Malegaon	110·8	97·9	+12·9
,, ,,	Sholapur	108·7	96·0	+12·7
,, ,,	Poona	103·0	90·8	+12·2
,, ,,	Ahmednagar	105·9	94·3	+11·6
,, ,,	Bijapur	105·2	94·7	+10·5
,, ,,	Belgaum	92·8	82·4	+10·4

In one of the tables given above it will have been noticed that the area of relatively low temperature over the North-Western Provinces gradually decreased in extent and intensity between the 4th and the 6th. This change continued during the 24 hours after 8 A.M. on the 6th and by 8 A.M. on the 7th, this area of low temperature had wholly disappeared and the heat was excessive in all divisions of India. The following gives comparative data of the different Indian divisions and shows the extent and amount of the general excess :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 7th June.	Mean minimum temperature, 7th June.	Mean daily temperature, 7th June.
	°	°	°
Burma	+2·0	+1·2	+1·6
Assam	+2·4	+1·2	+1·8
Bengal	+2·4	+1·4	+1·9
Orissa	+1·0	+1·6	+1·3
Bihar	+4·8	+5·0	+4·9
Chota Nagpur	+2·0	+2·0	+2·0
North-Western Provinces and Oudh	+1·8	+2·1	+2·0
Punjab	+0·3	+6·6	+3·5
Sind	+5·0	+3·4	+4·2
Rajputana	+3·1	+4·2	+3·7
Gujarat	+1·8	+1·3	+1·6
Central India	+3·8	+3·7	+3·8
Central Provinces	+6·3	+5·0	+5·7
Berar	+7·4	—4·4	+1·5
West Coast	+4·1	+4·1	+4·1
Bombay Deccan	+8·6	+1·7	+5·2
Mysore	+2·4	+2·2	+2·3
Madras Coast	+2·7	+1·5	+2·1
Madras Deccan	+6·8	+4·5	+5·7
South India	+4·4	+0·1	+2·3

These conditions of generally excessive heat continued until the 11th, but there were some slight dust and thunderstorms around the north-western frontier on the 8th which reduced temperature to below the normal in that area on the 9th, while moderate rain in Burma and Assam kept temperature about normal or a little below the normal in those two areas. With these exceptions the mean temperature was steadily excessive over all the Indian divisions from the 7th to the 11th. The following gives comparative data :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	7th June.	8th June.	9th June.	10th June.	11th June.
	°	°	°	°	°
Burma	+1·6	+0·6	+0·2	+0·9	+0·3
Assam	+1·8	+0·4	+1·6	+3·1	+4·7
Bengal	+1·9	+3·0	+2·4	+3·1	+4·0
Orissa	+1·3	+2·3	+3·2	+1·9	+1·3
Bihar	+4·9	+3·6	+2·9	+4·3	+6·5
Chota Nagpur	+2·0	+1·5	+1·0	+2·3	+3·5
North-Western Provinces and Oudh	+2·0	+3·9	+4·1	+1·8	+5·0
Punjab	+3·5	+3·3	+1·5	+3·3	+4·1
Sind	+4·2	+3·5	+2·8	+3·0	+7·0

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	7th June.	8th June.	9th June.	10th June.	11th June.
	°	°	°	°	°
Rajputana	+3·7	+3·8	+1·8	+4·1	+6·3
Gujarat	+1·6	+0·6	+1·0	+1·9	+3·7
Central India	+3·8	+4·8	+3·0	+4·1	+6·6
Central Provinces	+5·7	+5·0	+4·4	+5·2	+5·3
Berar	+1·5	+1·5	+1·3	+7·1	+3·1
West Coast	+4·1	+4·2	+2·9	+2·2	+2·0
Bombay Deccan	+5·2	+5·3	+1·9	+1·3	+2·8
Mysore	+2·3	+3·4	+3·8	+3·1	+3·1
Madras Coast	+2·1	+2·5	+2·2	+1·9	+3·1
Madras Deccan	+5·7	+3·9	+3·3	+3·0	+3·7
South India	+2·3	+3·9	+4·1	+3·0	+2·6

The only important chang shown by the above figures is the movement of the area of greatest excess northward and north-westward from the Madras Deccan to Sind.

On the 12th temperature conditions began to change considerably, owing to the rainfall from a moderate cyclonic storm which passed along a curved path from the centre of the Bay through Orissa, the east of the Central Provinces, and West Bengal into Central Bengal. Cyclonic conditions appeared over the centre and north of the Bay on the 10th and rain began to fall on the Orissa Coasts on the 11th. This rainfall became heavy in South-West Bengal, Orissa, Ganjam, and the eastern districts of the Central Provinces on the 12th and extended to other parts of Bengal on the 13th. This rainfall continued until the storm broke up on the 16th. The first effect of this rainfall was to cause a sudden and large fall of temperature over Bengal, Orissa, Bihar, and Chota Nagpur on the 12th, reducing the mean temperature to below the normal over that area. This reduction of temperature continued and extended northward and eastward following the course of the storm until the 19th. The following gives comparative data for Orissa, Chota Nagpur, Bihar, Bengal, Assam, and Burma for these eight days:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	12th June.	13th June.	14th June.	15th June.	16th June.	17th June.	18th June.	19th June.
	°	°	°	°	°	°	°	°
Orissa	−3·8	−4·4	−2·9	− 0·1	+2·4	+4·8	+5·8	+5·7
Chota Nagpur	+0·5	−8·2	−9·1	−10·3	−1·0	+4·7	+4·7	+4·6
Bihar	+5·5	+0·4	−8·4	−10·7	−5·4	−0·9	+0·1	+1·0
Bengal	+2·0	−1·4	−2·9	− 3·5	−4·7	−0·1	+0·1	−1·0
Assam	+4·1	+2·0	−0·9	− 1·7	−1·4	−2·1	−1·3	0
Burma	+0·3	+0·5	+0·5	− 0·1	−1·3	−2·5	−1·7	+0·5

As is usually the case when rain occurs during the hot weather the consequent reduction of temperature was more marked in the day than in the night temperatures, and very low maxima were recorded during this burst of rain in several parts of North-East India. The following gives comparative data of the stations at which the deficiency in the maximum temperature was greatest between the 12th and the 19th:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
12th June	Cuttack	85·4	97·0	−11·6
,, ,,	False Point	84·4	91·6	− 7·2
13th ,,	Ranchi	77·1	93·0	−15·9
,, ,,	Chaibassa	83·1	98·2	−15·1
,, ,,	Hazaribagh	82·2	93·8	−11·6
,, ,,	Burdwan	83·3	94·8	−11·5
,, ,,	Cuttack	85·4	96·6	−11·2
14th ,,	Gaya	83·4	100·9	−17·5
,, ,,	Ranchi	76·6	92·7	−16·1
,, ,,	Patna	82·0	97·4	−15·4
,, ,,	Chaibassa	83·1	98·1	−15·0
,, ,,	Hazaribagh	78·2	92·9	−14·7
15th ,,	Gaya	79·4	99·7	−20·3
,, ,,	Patna	78·0	96·3	−18·3
,, ,,	Hazaribagh	75·2	92·2	−17·0
,, ,,	Chaibassa	81·6	97·4	−15·8
,, ,,	Darbhanga	78·2	92·5	−14·3
16th ,,	Berhampore	80·2	91·6	−11·4
,, ,,	Gaya	88·9	99·0	−10·1
17th ,,	Narayanganj	78·1	88·4	−10·3
,, ,,	Silchar	79·4	87·9	− 8·5
18th ,,	Minbu	83·1	91·3	− 8·2
,, ,,	Yamethin	84·9	93·1	− 8·2
19th ,,	Bogra	83·7	89·2	− 5·5
,, ,,	Narayanganj	85·1	88·9	− 3·8

While these conditions prevailed in the north-east, the heat was steadily excessive over North-Western and Central India. The following gives comparative data for

the different divisions of North-West and Central India for the eight days from the 12th to the 19th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF							
	12th June.	13th June.	14th June.	15th June.	16th June	17th June.	18th June.	19th June.
	°	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	+5·6	+3·6	—3·2	—0·5	+4·1	+4·3	+3·3	+3·6
Punjab . . .	+5·2	+7·2	+2·7	+1·5	+4·3	+1·5	—0·3	+2·1
Sind	+5·1	+5·3	+6·4	+5·3	+4·2	+4·6	+4·6	+3·9
Rajputana . . .	+9·0	+9·6	+10·1	+5·9	+5·4	+5·2	+5·2	+5·3
Gujarat . . .	+4·9	+6·7	+5·1	+3·5	+1·8	+3·4	+3·5	+4·7
Central India . .	+7·3	+5·9	+4·0	+4·9	+6·3	+5·2	+5·2	+4·0
Central Provinces .	+4·2	+2·3	+1·3	+5·6	+6·7	+5·8	+7·0	+7·5
Berar . . .	+4·2	+4·9	+5·9	+7·3	+8·2	+7·3	+8·1	+7·4

The greatest excess was at first reported from the Western Desert, but, on the 16th and 17th, the weather became slightly unsettled in the extreme north-west, resulting in some reduction of temperature in that area, and the transference of the region of greatest excess eastward to the central districts. The following gives comparative data of the stations at which the excess was greatest, day by day, from the 12th to the 19th :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
12th June .	Jaipur . . .	+ 8·4	+11·0	+ 9·7
" " .	Ajmer . . .	+ 8·8	+10·3	+ 9·6
13th " .	Deesa . . .	+15·8	+ 7·9	+11·9
" " .	Ahmedabad . .	+14·0	+ 7·5	+10·8
14th " .	Sambhar . . .	+13·2	+ 8·5	+10·9
" " .	Jaipur . . .	+10·4	+10·8	+10·6
15th " .	Seoni . . .	+11·8	+ 7·1	+ 9·5
" " .	Ahmedabad . .	+13·2	+ 4·5	+ 8·9
16th " .	Mainpuri . . .	+11·8	+11·0	+11·4
" " .	Umballa . . .	+ 9·9	+12·1	+11·0
17th " .	Jubbulpore . .	+10·8	+ 9·1	+10·0
" " .	Bahraich . . .	+11·1	+ 8·5	+ 9·8
18th " .	Sutna . . .	+10·4	+ 9·6	+10·0
" " .	Nagpur . . .	+11·1	+ 6·9	+ 9·0
19th " .	Seoni . . .	+13·5	+ 8·6	+11·1
" " .	Bahraich . . .	+10·1	+ 7·4	+ 8·8

As mentioned above the weather was slightly unsettled with dust and thunderstorms in the extreme north-west during this period and as a result the mean temperature of the stations in Baluchistan, the North-West Himalayas and the submontane districts of the Punjab was on several occasions lower than usual. The following gives the daily variation of mean temperature from the normal at the stations of Quetta, Chaman, Peshawar, Murree, Srinagar, and Leh for the period under discussion :—

STATION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF							
	12th June.	13th June.	14th June.	15th June.	16th June.	17th June.	18th June.	19th June.
	°	°	°	°	°	°	°	°
Quetta . . .	—0·5	+1·2	+0·3	—2·0	—3·0	—4·2	—3·0	+1·4
Chaman . . .	—2·3	—0·3	+0·1	—5·9	—3·4	—3·7	—0·5	+2·9
Peshawar . . .	+2·5	+3·0	—0·4	+6·3	—0·3	—4·9	—3·4	+1·0
Murree . . .	+5·2	+2·8	+2·2	+1·4	+0·2	—4·7	+2·0	+6·0
Srinagar . . .	—1·8	+1·6	—9·8	—3·7	—1·5	—7·9	—4·3	+0·1
Leh	—1·8	—0·8	—10·0	—9·7	—8·1	—10·8	—12·1	—6·1

On the 16th the rainfall suddenly became heavy in the west and south-west of the Peninsula and a marked fall of temperature occurred over the South and South-West Peninsula. This reduced temperature to below the normal and the heat remained less than usual up to the 19th. This is shown below :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	16th June.	17th June.	18th June.	19th June.
	°	°	°	°
South-West Peninsula . .	—1·7	—1·1	—1·6	—3·1
South India	+1·7	+1·0	—3·1	—0·8

The fourth temperature period lasted only from the 20th to the 22nd during which time the mean temperature exceeded the normal in nearly all divisions. The following gives comparative data for all divisions for the 21st in

illustration of the conditions prevailing during this period :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 21st June.	Mean minimum temperature, 21st June.	Mean daily temperature, 21st June.
	°	°	°
Burma	+0·7	+0·8	+0·8
Assam	+3·0	+2·7	+2·9
Bengal	+2·5	+2·1	+2·3
Orissa	+1·5	+3·4	+2·5
Bihar	+1·3	+2·5	+1·9
Chota Nagpur	+6·4	+1·0	+3·7
North-Western Provinces and Oudh	+6·6	+5·7	+6·2
Punjab	+9·4	+7·9	+8·7
Sind	+4·5	+1·3	+2·9
Rajputana	+6·3	+6·5	+6·4
Gujarat	+5·4	+2·9	+4·2
Central India	+8·8	+7·8	+8·3
Central Provinces	+10·5	+3·0	+6·8
Berar	+7·4	+0·9	+4·2
West Coast	+0·4	—0·5	—0·1
Bombay Deccan	+4·3	+1·4	+2·9
Mysore	+5·9	+1·2	+3·6
Madras Coast	+4·9	+0·7	+2·8
Madras Deccan	+5·0	—1·1	+2·0
South India	+2·1	+1·0	+1·6

The heat was very great during this period all over North-Western and Central India and the following high maxima were recorded during this period of generally excessive heat :—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
20th June	Nagpur	110·2	95·5	+14·7
" "	Raipur	106·5	94·0	+12·5
" "	Bhavnagar Para	107·2	94·7	+12·5
" "	Chanda	107·7	95·6	+12·1
21st "	Lahore	118·6	104·1	+14·5
" "	Jubbulpore	108·0	94·0	+14·0
" "	Seoni	104·9	91·1	+13·8
" "	Sialkot	117·5	104·6	+12·9
21st June	Sutna	109·6	97·0	+12·6
" "	Rawalpindi	116·5	104·1	+12·4
" "	Chanda	107·2	95·2	+12·0
22nd "	Sutna	110·1	96·2	+13·9
" "	Lahore	117·1	103·6	+13·5
" "	Sialkot	117·5	104·0	+13·5
" "	Rawalpindi	116·0	103·6	+12·4
" "	Hoshangabad	106·9	94·5	+12·4
" "	Mainpuri	110·2	99·0	+11·2
" "	Jubbulpore	105·0	93·9	+11·1

On the 23rd a small storm occasioned rain around the north of the Bay while a series of thunderstorms gave showers to the Gangetic Plain. These unsettled conditions gradually extended and were accompanied by a considerable fall of temperature. About the same time, the 25th, there also occurred a marked extension of rainfall over the Peninsula which occasioned a large reduction of temperature over that area so that the mean temperature was below the normal except in the South Punjab, Rajputana, the west of the North-Western Provinces, Central India, the Central Provinces, and North Bombay. The following gives comparative data for the 25th when the unsettled weather and the reduction of temperature were at their greatest extension :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 25th June.	Mean minimum temperature, 25th June.	Mean daily temperature, 25th June.
	°	°	°
Burma	0	+0·5	+0·3
Assam	+0·3	+0·9	+0·6
Bengal	—1·6	+0·4	—0·6
Orissa	—4·4	—0·6	—2·5
Bihar	—1·8	+1·2	—0·3
Chota Nagpur	—5·6	+0·2	—2·7
North-Western Provinces and Oudh	+1·3	0	+0·7
Punjab	—0·5	+1·4	+0·5
Sind	+1·2	+1·1	+1·2
Rajputana	+3·9	+5·2	+4·6
Gujarat	+4·9	+2·8	+3·9
Central India	+8·5	+3·1	+5·8

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 25th June.	Mean minimum temperature, 25th June.	Mean daily temperature, 25th June.
	°	°	°
Central Provinces	+5·0	−0·4	+2·3
Berar	+1·9	−0·3	+0·8
West Coast	−3·7	−2·4	−3·1
Bombay Deccan	+1·9	+0·1	+1·0
Mysore	−4·3	−1·0	−2·7
Madras Coast	−3·0	−1·5	−2·3
Madras Deccan	−4·1	−0·8	−2·5
South India	−6·0	−1·9	−4·0

After the 25th though the temperature was somewhat unsteady it gradually rose over the greater part of the country and the last four days of the month were marked by a gradual extension of the area of excessive temperature and a gradual diminution of the area of deficient temperature. The following gives comparative data for all divisions from the 26th to the 30th, and exhibits the gradual extension of the area of excess :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	26th June.	27th June.	28th June.	29th June.	30th June.
	°	°	°	°	°
Burma	−0·6	−0·1	+0·2	0	−0·1
Assam	−0·2	−1·3	+0·8	−1·6	−0·7
Bengal	−2·4	−2·5	−1·1	−0·3	+0·3
Orissa	−2·6	−1·3	−0·1	+4·2	+5·0
Bihar	−1·3	−2·0	−2·7	−2·0	−0·7
Chota Nagpur	−2·0	−0·4	−0·9	+1·3	+3·2
North-Western Provinces and Oudh.	+2·3	+1·5	+3·6	+6·8	+8·2
Punjab	+0·9	+0·2	+4·2	+5·8	+8·4
Sind	+2·3	+1·1	+1·6	+1·1	+1·4
Rajputana	+3·4	+5·1	+5·9	+7·5	+8·5
Gujarat	+3·9	+4·2	+4·9	+3·4	+3·1
Central India	+4·6	+5·5	+8·5	+10·2	+11·2
Central Provinces	+1·0	+2·4	+4·6	+6·5	+8·3
Berar	+0·5	+1·1	+2·8	+4·1	+6·2
West Coast	−2·4	−1·2	−1·3	−0·8	−0·2
Bombay Deccan	−2·0	−0·2	−0·2	−0·9	+1·6
Mysore	−0·5	−2·0	−1·5	−2·4	−1·1
Madras Coast	−0·1	+1·8	+1·4	+0·3	+1·2
Madras Deccan	−1·8	+0·7	+0·4	−0·3	+1·5
South India	−2·2	−0·7	+0·5	+1·1	+1·5

The above shows that the highest temperatures, relatively to the normal, were recorded during this period over the south of the North-Western Provinces and the adjacent parts of Central India, the Central Provinces and the Punjab. The following gives comparative data of the stations at which the excess was greatest, day by day, from the 26th to the 30th :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
26th June	Sutna	+9·9	+2·4	+6·2
	Jaipur	+4·9	+6·8	+5·9
	Allahabad	+7·3	+3·6	+5·5
27th ,,	Jhansi	+10·6	+6·4	+8·5
	Indore	+9·0	+5·7	+7·4
	Neemuch	+8·3	+6·3	+7·3
28th ,,	Jhansi	+13·1	+7·2	+10·2
	Saugor	+13·0	+6·4	+9·7
	Neemuch	+12·7	+6·5	+9·6
29th ,,	Jhansi	+14·2	+12·5	+13·4
	Sutna	+11·7	+11·7	+11·7
	Nowgong	+11·6	+10·7	+11·2
	Neemuch	+15·2	+6·6	+10·9
	Cawnpore	+11·1	+9·7	+10·4
30th ,,	Jhansi	+16·5	+12·7	+14·6
	Sutna	+16·3	+12·6	+14·5
	Nowgong	+14·3	+11·7	+13·0
	Agra	+12·8	+10·8	+11·8
	Delhi	+11·1	+11·8	+11·5
	Mainpuri	+13·5	+9·3	+11·4

During the whole of the last temperature period, *viz.*, from the 23rd to the 30th the mean temperature was steadily low at the stations in Baluchistan and Kashmir. This is shown by the following comparative data :—

PROVINCE OR DIVISION.	Station.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF							
		23rd June.	24th June.	25th June.	26th June.	27th June.	28th June.	29th June.	30th June.
		°	°	°	°	°	°	°	°
BALUCHISTAN.	Quetta	−5·5	−2·2	−3·4	−8·2	−6·3	−2·4	−1·6	−3·7
	Chaman	−2·8	−3·9	−1·3	−5·8	−2·6	+1·2	+1·0	−0·3
KASHMIR.	Leh	−4·2	−5·2	−3·5	−1·9	−3·5	−6·2	−4·9	−4·1
	Srinagar	−6·8	−5·1	−4·7	−5·6	−10·7	−4·5	−2·0	−1·0

This reduction of temperature did not, however, extend into Persia where the mean temperature of the month was about the normal. The following gives comparative data for the Persian stations :—

Station.	Mean daily temperature.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°	°
Bushire	86·1	86·3	—0·2
Jask	90·0	89·4	+0·6

At Aden the mean temperature was in slight excess while at the Seychelles and Mauritius it was about normal. This is shown below :—

Station.	Mean daily temperature.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°	°
Aden	90·0	88·5	+1·5
Seychelles	79·6	78·7	+0·9
Mauritius	69·4	69·2	+0·2

The following table gives the variations of the mean temperatures of the different divisions, week by week, during the month and for the whole month :—

Province or Division.	Variation from normal of mean temperature for week ending				
	9th June 1900.	16th June 1900.	23rd June 1900.	30th June 1900.	For whole month.
	°	°	°	°	°
Burma	+2·1	+0·1	0	+0·1	+0·7
Assam	+1·9	+1·4	+1·0	—0·1	+0·5
Bengal	+1·2	—0·5	+0·8	—1·0	+0·1
Orissa	+0·5	—0·8	+2·6	+0·1	+0·8
Bihar	+1·7	—1·1	0	—1·5	—0·4
Chota Nagpur	—0·5	—3·2	+3·8	—0·4	+0·3
North-Western Provinces and Oudh.	—1·1	+2·3	+3·0	+2·9	+2·0
Punjab	+0·9	+4·0	+4·4	+2·7	+3·2
Sind	+3·3	+5·3	+3·3	+1·5	+3·1
Rajputana	+2·4	+7·2	+5·2	+5·7	+4·9
Gujarat	+0·7	+3·9	+3·9	+3·8	+2·9
Central India	+2·8	+5·6	+6·0	+7·3	+5·2
Central Provinces	+4·1	+4·4	+6·5	+3·8	+4·7
Berar	+4·1	+5·8	+5·5	+2·5	+4·4
West Coast	+3·9	+1·6	+0·1	—1·4	+1·1
Bombay Deccan	+5·4	+3·2	+3·6	+0·4	+3·1
Mysore	+4·0	+2·3	+2·1	—1·4	+1·8
Madras Coast	+1·5	+1·8	+2·4	+0·1	+1·3
Madras Deccan	+5·5	+2·9	+1·5	—0·4	+2·7
South India	+3·6	+1·4	+0·2	—0·7	+1·2

Winds.

The winds were stronger than usual on the average of the month at Port Blair and on the Burma coast except at Akyab. They were more westerly in direction than usual at the Bay Islands, but were fairly normal at the Burma stations. This is shown below :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, June 1900.	Normal, June.	Westerly deflection.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°				
Port Blair	S 67 W	S 43 W	+24	321	231	+90
Cocos Island	S 48 W	S 34 W	+14	...	...	—
Rangoon	S 15 W	S 23 W	—8	126	123	+3
Diamond Island	S 35 W	S 35 W	0	276	216	+60
Akyab	S 12 E	S 3 E	—9	62	97	—35

In Bengal and Orissa the winds were about normal but they were less steady than the average. At Saugor Island they were slightly weaker than usual.

In the Gangetic Plain the winds were approximately normal except at Allahabad where the wind direction was north-east by north instead of the normal north by west and where the wind was stronger and steadier than usual. The following gives comparative data for this station :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, June 1900.	Normal Percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Easterly deflection.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
				°	°				
Allahabad	34	15	+19	N 38 E	N 9 W	+47	219	166	+53

In the Upper Sub-Himalayas except at Roorkee the wind direction was unusually southerly—more particularly at Meerut and Lahore. The following gives comparative data of direction for the stations in this division :—

STATION.	MEAN WIND DIRECTION.	
	Actual, June 1900.	Normal, June.
	°	°
Dehra Dun	S 34 W	S 53 W
Roorkee	S 47 E	S 10 E
Meerut	S 63 E	N 16 W
Lahore	S 25 E	N 19 E
Ludhiana	S 2 W	S 64 W

The winds in this area were steadier than usual, but the velocity varied irregularly from the normal. The following gives comparative data of velocity and steadiness :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Dehra Dun	38	16	+22	46	40	+ 6
Roorkee	32	17	+15	94	95	— 1
Meerut	18	10	+ 8	42	64	—22
Lahore	12	6	+ 6	64	88	—24
Ludhiana	42	8	+34	76	64	+12

In the Indus Valley the winds were weaker than usual, more particularly at Peshawar, where also the wind was less steady and more northerly than the average. The following gives data for this station :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Northerly deflection.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
				°	°				
Peshawar	28	31	—3	N 21 E	N 41 E	+20	64	113	—49

Winds were more southerly than usual in Eastern Rajputana and more westerly than usual in Southern Rajputana. The following gives data for Jaipur and Deesa :—

STATION.	MEAN WIND DIRECTION.	
	Actual, June 1900.	Normal, June.
	°	°
Jaipur	S 83 W	N 66 W
Deesa	S 59 W	S 42 W

The wind was steadier than usual at both stations, but at Jaipur the velocity was slightly less than the normal. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Jaipur	50	45	+ 5	156	165	— 9
Deesa	81	70	+11	456	397	+59

The following gives comparative data of the mean wind direction, air movement and steadiness for the Bay Islands and the different provinces of Northern India :—

PROVINCE OR AREA.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual, normal from June 1900.	Actual, June 1900.	Normal, June.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
				°	°			
Bay Islands	84	85	— 1	S 58 W	S 39 W	321	231	+90
Burma	72	67	+ 5	S 14 W	S 19 W	155	145	+10
Bengal	54	62	— 8	S 2 E	S 6 E	218	225	— 7
Orissa	55	64	— 9	S 15 W	S 37 W	287	303	—16
Chota Nagpur	2	15	—13	N 9 W	S 38 W	204	225	—21
Bihar	82	70	+12	S 70 E	S 85 E	142	148	— 6
North-Western Provinces.	31	15	+16	S 52 E	S 69 W	100	91	+ 9
Punjab	27	15	+12	S 39 E	N 5 E	68	88	—20
Sind	59	65	— 6	S 19 W	S 19 W	252	274	—22
Rajputana	66	58	+ 8	S 71 W	S 78 W	306	281	+25

The above shows that the wind was more southerly and steadier than usual in several parts of Northern India, but that the velocity was below the average in many places.

The wind direction over the Deccan was very nearly normal, but on the whole the winds were stronger and steadier than usual. The following gives comparative data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Westerly deflection.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
				°	°				
Belgaum .	78	78	0	S 78 W	S 62 W	+16	537	556	— 19
Sholapur .	67	70	— 3	N 81 W	S 86 W	...	262	316	— 54
Poona .	93	78	+15	S 86 W	S 80 W	+ 6	547	360	+187
Akola .	74	72	+ 2	N 63 W	N 68 W	— 5	300	223	+ 77
Buldana .	85	66	+19	N 77 W	N 73 W	+ 4	293	253	+ 40
Khandwa .	77	72	+ 5	N 65 W	N 79 W	—14	307	234	+ 73
Nagpur .	60	52	+ 8	N 88 W	N 83 W	+ 5	263	240	+ 23
Hyderabad. (Deccan)	77	70	+ 7	N 75 W	N 84 W	— 9	222	217	+ 5

The Arabian Sea monsoon was more or less unsteady throughout the month and was greatly delayed. The Minicoy register shows that for the first eight days of the month the wind was very light, more particularly on the 3rd, when the hourly velocity was only 4 miles, and on the 8th when it was less than 10 miles per hour. On the 9th the velocity increased and on the 12th and 13th the first strong burst of the monsoon took place and the velocity rose to 30 miles per hour. The wind then gradually fell off and was very light from the 19th to the 22nd, when it again increased and was moderately strong till the end of the month. The winds on the West coast on the mean of the month varied irregularly from the average, thus at Bombay the wind was considerably lighter and at Karwar slightly stronger than usual. This is shown below :—

STATION.	MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Bombay	273	376	—103
Karwar	160	128	+ 32

This is supported by the rainfall conditions as the monsoon current apparently never extended northward beyond Ratnagiri during the month. The following gives comparative data of the mean wind direction and steadiness during the month at Bombay and Karwar :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.	
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal June.
				°	°
Bombay	73	65	+ 8	S 73 W	S 64 W
Karwar	75	74	+ 1	N 88 W	S 73 W

In South India the wind was generally stronger than usual, while the direction was about the normal. The following gives comparative data of direction and velocity for the stations in this area :—

STATION.	MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, June 1900.	Normal, June.	Westerly deflection.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°				
Salem . . .	S 39 W	S 54 W	—15	167	113	+54
Chitaldroog . .	S 77 W	S 76 W	+ 1	282	261	+21
Bangalore . . .	S 74 W	S 72 W	+ 2	293	209	+84
Hassan . . .	S 84 W	S 80 W	+ 4	122	125	— 3
Mysore . . .	S 76 W	S 75 W	+ 1	362	365	— 3
Madras . . .	S 56 W	S 36 W	+20	211	212	— 1
Bellary . . .	N 79 W	S 86 W	...	315	251	+64

The following gives comparative data of the mean

wind direction, air movement and steadiness for the different provinces of the Peninsula :—

PROVINCE OR AREA.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
				°	°			
Bombay Deccan .	79	75	+ 4	S 88 W	S 76 W	445	411	+34
Berar . . .	80	69	+11	N 70 W	N 71 W	297	238	+59
Central Provinces	69	62	+ 7	N 77 W	N 81 W	285	237	+48
West Coast .	74	70	+ 4	S 81 W	S 69 W	217	252	—35
Madras Deccan .	80	74	+ 6	N 77 W	W	269	234	+35
Madras Coast .	40	61	—21	S 56 W	S 36 W	211	212	— 1
Mysore . .	85	81	+ 4	S 78 W	S 76 W	265	240	+25
South India .	60	76	—16	S 39 W	S 54 W	167	113	+54

The above shows stronger and steadier winds than usual over the interior of the Peninsula.

In Baluchistan the winds were less than half their average velocity, but the direction and steadiness were about normal. In the Himalayas, on the contrary, except at Darjeeling, the velocity was greater than usual. The following gives comparative velocity data for Quetta, Leh, Srinagar, Simla, Chakrata and Ranikhet :—

STATION.	MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Quetta	36	84	— 48
Leh	75	57	+ 18
Srinagar	98	86	+ 12
Simla	110	97	+ 13
Chakrata	290	153	+137
Ranikhet	122	84	+ 38

The wind directions varied irregularly from the average, but the steadiness was generally greater than usua The following gives data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.	
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.
				°	°
Quetta . . .	42	39	+ 3	N 67 W	N 75 W
Leh	52	31	+21	S 78 W	S 81 W
Srinagar . . .	15	5	+10	N 13 E	S 69 E
Simla . . .	25	18	+ 7	N 40 W	N 12 W
Chakrata . . .	64	52	+12	S 11 E	S 73 W
Ranikhet . . .	59	46	+13	N 89 W	S 67 W

At the central hill stations the wind direction was less westerly than usual, but the steadiness and velocity were above the average. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Westerly deflection.	Actual, June 1900.	Normal, June.	Variation of actual, from normal, June 1900.
				°	°				
Mount Abu	76	67	+ 9	S 36 W	S 49 W	—13	325	254	+71
Pachmarhi .	63	60	+ 3	N 51 W	N 80 W	—29	283	206	+77
Chikalda	64	60	+ 4	N 22 W	N 45 W	—23	290	234	+56

The wind at Wellington blew from the normal direction, but the velocity, as at the central hill stations, was greater than the average. This is shown below :—

STATION.	MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, June 1900.	Normal, June.	Westerly deflection.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°				
Wellington . . .	S 65 W	S 71 W	—6	162	111	+51

Apparently the wind was much stronger at Kodaikanal in the Palni Hills than at Wellington in the Nilgiris while the direction was more northerly. This is shown below:—

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, June 1900.	Normal, June.	Actual, June 1900.	Normal, June	Variation of actual from normal, June 1900.
	°	°			
Wellington . .	S 65 W	S 71 W	162	111	+51
Kodaikanal . .	N 54 W	...	438	...	...

At Aden the wind blew from the normal direction and was steadier than usual, while at Perim, on the contrary, the wind was unusually southerly and was very unsteady. The following gives comparative data:—

Station.	Mean steadiness.			Mean wind direction.	
	Actual percentage, June 1900.	Normal percentage, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.
				°	°
Aden	61	55	+ 6	S 1 E	S
Perim	10	42	−32	S 9 W	N 39 W

In the south-east Trades region the wind was some degrees more easterly than the average and was below the normal strength. This is shown below:—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, June 1900.	Normal, June.	Easterly deflection.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	°	°				
Zanzibar . .	S 10 E	S 4 E	+ 6	184	216	−32
Seychelles . .	S 35 E	S 21 E	+14	230	278	−48

The following gives comparative data of the mean air movement for the various provinces based on Table I:—

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Burma	134	120	+ 14
Assam	103	84	+ 19
Bengal	122	173	− 51
Orissa	274	187	+ 87
Bihar	130	86	+ 44
Chota Nagpur	130	214	− 84
North-Western Provinces and Oudh .	94	106	− 12
Punjab	115	84	+ 31
Sind	293	307	− 14
Rajputana	274	254	+ 20
Gujarat	307	379	− 72
Central India	230	211	+ 19
Central Provinces	180	156	+ 24
Berar	298	197	+101
West Coast	197	254	− 57
Bombay Deccan	389	386	+ 3
Mysore	264	202	+ 62
Madras Coast	238	197	+ 41
„ Deccan	305	274	+ 31
South India	180	161	+ 19

Humidity and Cloud.

The humidity on the mean of the month was about normal over the greater part of Burma, on the coasts of the Peninsula and in North-East India, but owing to the delay in the setting in of the rains and their not extending properly inland, the mean humidity was in moderate to considerable defect over the greater part of the remainder of India. The deficiency was greatest and more than 19 per cent. in amount over the South Punjab,

Rajputana, the Central Provinces, Central India and Khandesh. The following gives comparative data for this dry area:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Ludhiana . .	·574	·654	—·080	37	49	—12
Jaipur . . .	·594	·667	—·073	37	50	—13
Nagpur . .	·652	·718	—·066	49	60	—11
Khandwa . .	·668	·714	—·046	49	60	—11
Buldana . .	·587	·664	—·077	51	65	—14

At Port Blair the air was damper than usual, but the mean temperature was in excess and the relative humidity was below the normal. The following gives comparative data for this station:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Port Blair . .	·945	·916	+·029	83	86	—3

In Burma, Bengal and Orissa the relative humidity on the mean of the month was approximately normal. The vapour tension in these two areas was above the normal to a slight extent, but the mean temperature was likewise in excess and with the result noted below:—

PROVINCE OR DIVISION.	STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
		Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
		"	"	"	%	%	
BURMA .	Rangoon . .	·928	·902	+·026	90	89	+1
	Diamond Island .	·918	·888	+·030	85	86	—1
BENGAL .	Chittagong .	·914	·869	+·045	86	86	0
	Calcutta . .	·976	·957	+·019	81	83	—2
	Saugor Island .	1·026	1·019	+·007	83	83	0
ORISSA .	False Point .	1·011	·969	+·042	83	83	0

At Hazaribagh and Darbhanga the humidity conditions were about normal, but at Allahabad the vapour tension was low and the mean temperature in considerable excess, so that the relative humidity was in considerable defect. The following gives comparative data for this station:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Allahabad . .	·734	·769	—·035	47	56	—9

The air was drier than usual in the Upper Sub-Himalayas and the temperature in slight to considerable excess so that the relative humidity was in marked defect This is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Dehra Dun . .	·583	·650	—·067	51	63	—12
Roorkee . .	·614	·656	—·042	46	52	— 6
Meerut . . .	·667	·693	—·026	46	52	— 6
Lahore . . .	·550	·617	—·067	34	40	— 6
Ludhiana . .	·574	·654	—·080	37	49	—12

Peshawar, like the other stations in the Punjab, had a higher temperature and drier air than the normal on the mean of the month and the relative humidity was low, but both at Jacobabad and Kurrachee the vapour tension was in excess, though owing to the high temperature the relative humidity was in defect. The following gives comparative data for these three stations:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Peshawar . .	·466	·519	—·053	33	38	—5
Jacobabad . .	·736	·659	+·077	38	40	—2
Kurrachee . .	·981	·959	+·022	71	75	—4

In Rajputana the air was drier and the mean temperature was higher than usual. This was particularly marked at Jaipur. The following gives comparative data for Jaipur and Deesa.

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Jaipur . . .	·594	·667	—·073	37	50	—13
Deesa . . .	·682	·732	—·050	47	54	— 7

The following gives comparative data of humidity for the Bay Islands, Burma and the chief provinces of Northern India :—

PROVINCE OR AREA.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900
	"	"	"	%	%	
Bay Islands . .	·945	·916	+·029	83	86	— 3
Burma . . .	·923	·895	+·028	88	88	0
Bengal . . .	·972	·948	+·024	83	84	— 1
Orissa . . .	1·011	·969	+·042	83	83	0
Chota Nagpur .	·712	·692	+·020	65	66	— 1
Bihar . . .	·904	·912	—·008	75	76	— 1
N.-W. Provinces .	·650	·693	—·043	48	56	— 8
Punjab . . .	·530	·597	—·067	35	43	— 8
Sind . . .	·859	·809	+·050	55	58	— 3
Rajputana . .	·638	·700	—·062	42	52	—10

The air was drier than usual all over the Deccan where also the mean temperature was everywhere in excess. Consequently the relative humidity was in marked defect over this area, more particularly at Buldana, Khandwa and Nagpur. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Belgaum . .	·656	·666	—·010	78	82	— 4
Sholapur . .	·623	·632	—·009	56	60	— 4
Poona . . .	·646	·684	—·038	60	70	—10
Akola . . .	·672	·695	—·023	52	58	— 6
Buldana . .	·587	·664	—·077	51	65	—14
Khandwa . .	·668	·714	—·046	49	60	—11
Nagpur . .	·652	·718	—·066	49	60	—11
Hyderabad (Deccan).	·675	·707	—·032	59	65	— 6

Along the West coast the vapour tension of the air was about normal, but owing to the absence of rain at Bombay the temperature was excessive and the relative humidity below the normal. The following gives comparative data for the two West coast stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Bombay . .	·923	·924	—·001	76	82	—6
Karwar . .	·833	·850	—·017	82	83	—1

At Bellary the air is reported to have been much drier than usual, and the temperature slightly excessive. Consequently the relative humidity was in large local defect. The following gives comparative data for this station :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	0	%	%	
Bellary . . .	·543	·650	—·107	46	58	—12

In other parts of Southern India the variations from

the normal were small, though at all stations the relative humidity was in slight defect. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Salem	·757	·761	−·004	63	69	−6
Chitaldroog . .	·639	·634	+·005	69	71	−2
Bangalore . . .	·619	·619	0	71	73	−2
Hassan . . .	·620	·608	+·012	77	79	−2
Mysore . . .	·643	·628	+·015	72	74	−2
Madras . . .	·836	·815	+·021	61	65	−4

The following gives comparative data for the chief provinces of the Peninsula :—

PROVINCE OR AREA.	ABSOLUTE HUMIDITY			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Central Provinces .	·660	·716	−·056	49	60	−11
Bombay Deccan . .	·642	·661	−·019	65	71	− 6
Berar	·630	·680	−·050	52	62	−10
West Coast . .	·878	·887	−·009	79	83	− 4
Madras Deccan . .	·609	679	−·070	53	62	− 9
Madras Coast . .	·836	·815	+·021	61	65	− 4
Mysore . . .	·630	·622	+·008	72	74	− 2
South India. . .	·757	·761	−·004	63	69	− 6

In Kashmir and Lahoul there was a slight excess of relative humidity, due largely to the low temperature prevailing. The following gives comparative data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Srinagar . . .	·582	·557	+·025	84	73	+11
Leh	·164	·172	−·008	39	38	+ 1
Kailang . . .	·238	·249	−·011	57	55	+ 2

At the other hill stations in the Himalayas and in Baluchistan the mean relative humidity was in defect. The air at Quetta was particularly dry, so that, though the mean temperature was lower than usual, the relative humidity was nevertheless in defect. This is shown in the following table :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Quetta . . .	·247	·356	−·109	30	40	−10
Simla	·340	·408	−·068	48	63	−15
Chakrata . . .	·369	·416	−·047	58	67	− 9
Ranikhet . . .	·448	·472	−·024	60	66	− 6
Katmandu . . .	·634	·630	+·004	74	75	− 1

At the central and southern hill stations the general conditions of humidity were the same as at the stations on the neighbouring plains, as is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
	"	"	"	%	%	
Mount Abu . .	·516	·573	−·057	54	68	−14
Pachmarhi . . .	·707	·600	+·107	62	66	− 4
Chikalda . . .	·563	·599	−·036	57	72	−15
Wellington . . .	·419	·444	−·025	68	75	− 7

The following gives a brief summary of the abnormal features of the humidity distribution of the month :—

(1) The mean humidity of the month was about normal over the greater part of Burma and on the Bengal coast.

(2) The air was slightly drier than usual over Bengal and along the coasts of the Peninsula.

(3) The air was drier than usual elsewhere, more particularly over parts of Central and North-West India.

(4) The air was drier than usual at the hill stations, except those in Lahoul and Kashmir, where the humidity was in excess owing to the prevailing low temperature.

The mean cloud amount of the month was in excess over the Bay Islands, Burma, the greater part of Bengal and a considerable part of Madras. Within this large area of excess there were four stations where the variation was +1·0 or more. The following gives variation data for these four stations:—

Station.	Mean cloud amount.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Chittagong	8·9	7·6	+1·3
Hazaribagh	8·8	7·5	+1·3
Mysore	9·4	7·8	+1·6
Bellary	8·6	7·6	+1·0

In other parts of the area of increased cloud the variations were generally small.

Cloud was in defect over the remainder of India, and the following gives comparative data for the provinces or divisions where the amount of cloud was less than usual:—

Province or Division.	Mean cloud amount.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
South-West Bengal	7·0	7·4	−0·4
Bihar	4·5	4·7	−0·2
North-Western Provinces	2·7	4·1	−1·4
Punjab	1·1	2·8	−1·7
Sind	1·1	2·7	−1·6
Rajputana	1·7	4·8	−3·1
Bombay Deccan	6·8	7·6	−0·8
Berar	5·2	6·5	−1·3
Central Provinces	5·7	6·6	−0·9
West Coast	7·0	7·5	−0·5

The mean cloud amount was more than 1·0 below the normal over the whole of North-West India, except the Indus Valley, and was more than 2·0 below the normal at the stations for which comparative data are given below:—

Station.	Mean cloud amount.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Lahore	0·3	3·0	−2·7
Ludhiana	0·9	3·2	−2·3
Kurrachee	1·9	4·3	−2·4
Jaipur	1·7	4·5	−2·8
Deesa	1·6	5·0	−3·4

The general condition of the cloud amount, relatively to the normal, hence agreed fairly well with the principal abnormal features of the humidity distribution, except that the area of most deficient cloud lay further to the north-west than did the area of most deficient humidity.

At Meerut a large local excess of cloud was reported, a condition which appears somewhat doubtful in face of the weather prevailing in surrounding districts.

At all the hill stations, except Wellington, the cloud amount was below the normal. The deficiency was greatest at Mount Abu in South Rajputana, where also the maximum serenity over the plains was reported. The following gives comparative data of cloud amount at the different hill stations:—

Station.	Mean cloud amount.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Quetta	0·6	1·1	−0·5
Leh	4·5	4·8	−0·3
Srinagar	3·3	3·8	−0·5
Kailang	5·2	5·3	−0·1
Simla	2·6	5·9	−3·3
Chakrata	3·5	5·1	−1·6
Ranikhet	3·3	5·5	−2·2
Katmandu	6·1	6·2	−0·1
Darjeeling	7·2	8·8	−1·6
Mount Abu	1·1	5·2	−4·1
Pachmarhi	5·6	6·6	−1·0
Chikalda	4·9	6·9	−2·0
Wellington	7·6	7·5	+0·1

The mean cloud amount was more than 8·0 over the

whole of the areas represented by the following stations:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Rangoon	9·2	8·7	+0·5
Diamond Island	8·9	8·1	+0·8
Akyab	8·2	7·5	+0·7
Chittagong	8·9	7·6	+1·3
Hazaribagh	8·8	7·5	+1·3
Chitaldroog	8·1	8·0	+0·1
Hassan	8·4	8·3	+0·1
Mysore	9·4	7·8	+1·6
Bellary	8·6	7·6	+1·0

The mean amount of cloud was less than 1·0 at the following stations in North-West India:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, June 1900.	Normal, June.	Variation of actual from normal, June 1900.
Lahore	0·3	3·0	—2·7
Ludhiana	0·9	3·2	—2·3
Jacobabad	0·2	0·9	—0·7

The following gives a brief summary of the principal abnormal features of the cloud distribution of the month:—

(1) There was more cloud than usual over the greater part of North-East India, Burma, the Bay area and the southern half of the Peninsula.

(2) There was less cloud than usual over the remainder of India.

(3) The deficiency was most marked over Southern Rajputana, where both on the plains and hills the deficiency was considerable.

(4) There was less cloud than usual at nearly all the hill stations.

Rainfall.

The advance of the south-west monsoon current over the Arabian Sea was greatly delayed. General rain did not commence on the Malabar coast until the 12th of June. The fall was heavy from the 16th to the 20th, but after the latter date rain fell off very rapidly and was light and scattered until the 23rd. Rain recommenced heavily in Malabar on the 24th and extended to the Konkan coast as far north as Bombay on the 25th. This burst of rain continued till the end of the month, but it never extended further north than Bombay, and the rainfall of the month was practically *nil* over Gujarat, Kathiawar, Central India, West Rajputana, Sind and the South Punjab. The rainfall, on the other hand, extended well into the Peninsula, and rain was received during the last week over Mysore, the Deccan and the Central Provinces.

On the opposite side of India the monsoon rainfall set in earlier than usual. A strong advance of monsoon winds, accompanying a cyclonic storm, occurred over the north of the Bay on the 10th and 11th, and a heavy burst of rain was received over the east of the Central Provinces, Chota Nagpur and Bengal between the 12th and the 16th. This was followed by a rapid increase of pressure over North-East India, and fine dry weather prevailed there till the 23rd, on which day rain accompanying the appearance of a small and slight storm recommenced over Bengal. This rainfall continued in South Bengal till the 27th (when it ceased and a short break set in) and till the end of the month in East and North Bengal. Very dry and hot weather prevailed over North-West India throughout the greater part of the month.

The rains thus commenced on the following dates in the under-mentioned provinces:—

Malabar	12th June.
Konkan	25th "
Central Provinces	" "
Bengal	11th "
Chota Nagpur	14th "
Bihar	" "

To the remaining provinces the monsoon rainfall never extended during the month.

The general distribution of the rainfall of the month was largely determined by—

(1) the delay in the establishment of the Arabian Sea monsoon current.

(2) the weakness of the monsoon current throughout, whereby it never extended into North Bombay or North-West India.

(3) the early and strong advance of the Bay current.

(4) the unusual track of the cyclonic storms which formed in the north of the Bay, one on the 10th and 11th, the other on the 21st June.

The chief abnormal features in the rainfall were—

(1) Excess of rain over Lower and Central Burma and East Bengal.

(2) Excess of rain in Bihar.

(3) Normal or slightly deficient rainfall in other parts of Burma and of North-East India.

(4) Deficient rainfall over the whole of North-Western and Central India—most marked, and amounting to a practical or complete absence of rain, over Baluchistan, Sind, Kathiawar and Gujarat.

(5) Normal rainfall over the Peninsula, except in Khandesh and part of the East coast, which received less and Mysore which received more than the average amount.

The chief periods of rainfall were:—

(1) From the 1st to the 3rd, when North-East India and the Gangetic Plain received thunder showers.

(2) The 8th to the 12th, when thundershowers were received over the west and centre of the Peninsula.

(3) The 11th to the 16th, when heavy rain was received over Orissa, the east of of the Central Provinces and Bengal from a cyclonic storm.

(4) The 23rd to the end of the month, when the West Coast and the interior of the Peninsula received rain.

(5) The 24th to the end of the month, when North-East India received moderate to very heavy rain.

The following table gives comparative rainfall data of June 1900 for the 56 meteorological divisions of India:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, June 1900.	Average normal, June.	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim*	...	...	36·97	40·05	−3·08
	Lower Burma (Deltaic)*	...	...	24·63	19·04	+5·59
	Central ditto*	...	...	16·24	12·09	+4·15
	Upper ditto*	...	...	7·71	10·51	−2·80
	Arakan*	...	...	36·65	52·86	−16·21
Bengal and Assam	Eastern Bengal	16·1	15·9	21·27	17·18	+4·09
	Assam (Surma)	18·5	20·6	18·99	24·42	−5·43
	Do. (Hills)	21·1	20·7	28·07	28·03	+0·04
	Do. (Brahmaputra)	16·3	15·3	15·42	14·46	+0·96
	Deltaic Bengal	11·4	12·8	10·14	10·66	−0·52
	Central do.	10·5	11·8	10·90	10·01	+0·89
	North do.	14·1	15·7	20·05	21·14	−1·09
	Bengal Hills	17·5	20·5	21·30	27·22	−5·92
	Orissa	7·7	10·2	7·94	9·20	−1·26
	Chota Nagpur	7·8	10·3	7·74	8·43	−0·69
	Bihar (South)	5·2	7·4	7·55	6·14	+1·41
	Do. (North)	8·2	9·5	11·52	9·05	+2·47
North-Western Provinces and Oudh.	North-Western Provinces (East)	2·8	5·0	1·78	4·29	−2·51
	Oudh (South)	2·7	4·6	1·37	4·39	−3·02
	Do. (North)	3·9	5·6	2·22	4·93	−2·71
	North-Western Provinces (Central)	1·9	4·4	0·69	3·53	−2·84
	Do. do. (West)	2·8	3·2	0·93	2·35	−1·42
	Do. do. (East Submontane)	4·4	6·2	3·30	5·54	−2·24
	Do. do. (West do.)	3·5	5·4	1·84	5·15	−3·31
	Do. do. (Hills)	7·1	10·3	5·13	7·53	−2·40
Punjab	Punjab (South-East)	3·4	2·9	1·37	2·52	−1·15
	Do. (South)	1·2	2·2	0·50	1·62	−1·12
	Do. (Central)	0·9	2·2	0·29	1·58	−1·29
	Do. (Submontane)	1·4	3·1	0·75	2·73	−1·98
	Do. (Hills)	3·6	6·9	2·21	4·78	−2·57
	Do. (North)	1·1	1·6	0·37	0·89	−0·52
	Do. (West)	0·6	1·3	0·20	0·67	−0·47

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Province.	Division.	Number of rainy days. Average actual, June 1900.	Number of rainy days. Average normal, June.	Rainfall. Average actual, June 1900.	Rainfall. Average normal, June.	Rainfall. Variation of actual from normal, June 1900.
				Inches.	Inches.	Inches.
Bombay and Malabar Coast Districts (Madras).	Malabar	21·3	23·9	39·41	35·53	+3·88
	Travancore	20·8	...	21·97	...	...
	Madras (South Central)	3·7	3·7	1·73	1·87	−0·14
	Coorg	21·5	...	31·33	...	...
	Mysore	7·6	6·6	6·59	4·18	+2·41
	Konkan	13·1	19·2	21·87	27·14	−5·27
	Bombay Deccan	7·5	8·2	5·21	5·80	−0·59
	Hyderabad North*	—	—	0	—	—
	Khandesh	5·2	7·6	3·84	5·69	−1·85
Central Provinces and Berar.	Berar	7·3	...	4·37	7·17	−2·80
	Central Provinces (West)	4·8	8·8	2·48	7·49	−5·01
	Do. (Central)	4·2	9·1	2·11	8·11	−6·00
	Do. (East)	7·7	9·2	6·20	8·31	−2·11
Bombay (North)	Gujarat	0·7	6·6	0·29	6·26	−5·97
	Kathiawar and Cutch	0·3	3·6	0·19	3·26	−3·07
	Sind	0	...	0	0·20	−0·20
	Baluchistan Hills	0	...	0·01	0·45	−0·44
Rajputana and Central India.	Central India (East)	2·4	...	1·17	6·35	−5·18
	Rajputana (East), Central India (West)	1·5	...	0·51	3·27	−2·76
	Do. (West)	0·6	...	0·37	1·73	−1·36
Madras	East Coast (North)	6·3	7·0	4·55	5·12	−0·57
	Do. (do.) (a)	9·0	12·0	7·50	6·93	+0·57
	Hyderabad (South)*	...	...	4·99	...	...
	Madras (Central)	4·8	4·5	2·32	2·55	−0·23
	East Coast (Central)	3·0	2·9	1·23	1·64	−0·41
	Do. (South)	2·6	3·3	1·18	1·93	−0·75
	Madras (South)	2·2	2·0	0·88	0·97	−0·09

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

The total rainfall of the month was 20°/₀ or more above the normal in the following 6 divisions, *viz.*, Lower Burma (+29 per cent), Central Burma (+34 per cent), Eastern Bengal (+24 per cent), South Bihar (+23 per cent), North Bihar (+27 per cent) and Mysore (+58 per cent).

It was normal in 12 divisions, *viz.*, Tenasserim (—8 per cent), Assam Hills, Assam Brahmaputra (each +7 per cent), Deltaic Bengal (—5 per cent), Central Bengal (+9 per cent), North Bengal (—5 per cent), Chota Nagpur (—8 per cent), Madras South Central (—7 per cent), Bombay Deccan (—10 per cent), East Coast North (*a*) (+8 per cent), Madras Central (—9 per cent), and Madras South (—9 per cent), and was less than normal in all the remaining divisions. The deficiency was more than 80°/₀ in the following divisions, *viz.*, Central Punjab (—82 per cent), Gujarat (—95 per cent), Kathiawar and Cutch (—94 per cent), Sind (—100 per cent), Baluchistan Hills (—98 per cent), Central India East (—82 per cent) and Rajputana East, Central India West (—84 per cent).

The total rainfall of the month amounted to less than 1 inch in the North-Western Provinces (West) (0·93″); South Madras (0·88″), the Submontane Punjab (0·75″); North-West Provinces (Central) (0·69″); Rajputana East, Central India West (0·51″); the South Punjab (0·50″); the North Punjab and West Rajputana (each 0·37″); the Central Punjab and Gujarat (each 0·29″); Kathiawar and Cutch (0·19″); Baluchistan Hills (0·01″) and the West Punjab (0·20″).

Rain fell daily throughout the month in Tenasserim and Burma. The fall was heavier than usual in Lower and Central Burma, was normal in Tenasserim, and was less than usual in Upper Burma and Arakan. This is shown below:—

Division.	Rainfall. Average actual, June 1900.	Rainfall. Average normal, June.	Rainfall. Variation of actual from normal, June 1900.	Rainfall. Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	36·97	40·05	−3·08	−8
Lower Burma (Deltaic)	24·63	19·04	+5·59	+29
Central Burma	16·24	12·09	+4·15	+34
Upper Burma	7·71	10·51	−2·80	−27
Arakan	36·65	52·86	−16·21	−31

In Bengal there were three periods of rainfall during the month. Between the 1st and 3rd there were showers from thunderstorms in most parts of the province, though they were less general in Chota Nagpur than in the remaining divisions. These showers were heaviest in North Bengal on the 1st and in East Bengal on the 2nd, and the following were the falls exceeding 3″ in 24 hours during this showery period:—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bogra	Nowkhilla	1st June	3·50
Tippera	Kasba	2nd "	3·75
Backergunge	Doulatkhan	" "	3·05
Noakhali	Fenny	" "	3·05
Khulna	Dumuria	3rd "	3·10

There then followed a week of fairly dry weather over Bengal, during which only light or moderate scattered showers were experienced.

On the 12th heavy monsoon rainfall commenced over Bengal, accompanying a storm, the centre of which crossed the South Orissa coast and passed by a curved path through the eastern districts of the Central Provinces and Chota Nagpur into Central Bengal where it filled up on the 16th. It gave a heavy burst of rain to all parts of Bengal, but particularly to the districts through which the centre passed. The following is a record of the falls of 5″ or more in 24 hours which were recorded on this occasion:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
ORISSA TRIBUTARY MAHALS.	Bispara	12th June.	7·00
PURI	Satpara	" "	6·20
24-PARGANAS	Saugor Island	" "	5·73
BALASORE	Chandbali	" "	5·55
PURI	Nayagarh	" "	5·28
BALASORE	Soro	" "	5·15
PURI	Bhanpur	" "	5·08
ORISSA TRIBUTARY MAHALS.	Kunjabongarh	13th "	5·54
DARJEELING	Mungpoo	13th June	5·53
PATNA	Hilsa	" "	5·50
DARJEELING	Darjeeling	14th "	7·20
"	Mungpoo	" "	6·61
DARBHANGA	Rosera	" "	6·40
SONTHAL-PARGANAS	Sahibgunj	" "	6·08
PATNA	Hilsa	" "	5·50
"	Barh	" "	5·20
"	Bihar	" "	5·10
NOAKHALI	Noakhali	" "	5·06
BHAGALPUR	Bongaon	15th "	6·40
DARJEELING	Darjeeling	" "	6·33
SONTHAL-PARGANAS	Godda	" "	6·30
BHAGALPUR	Bhagalpur	" "	6·23
MONGHYR	Gogri	" "	6·20
CHITTAGONG	Codala	" "	5·89
MONGHYR	Jamalpur	" "	5·88
"	Begusarai	" "	5·84
FARIDPUR	Faridpur	" "	5·54
RANGPUR	Ulipur	" "	5·48
GAYA	Pakri Barawan	" "	5·30
NOAKHALI	Noakhali	" "	5·18
DARBHANGA	Madhubani	" "	5·11
BHAGALPUR	Sapaul	" "	5·11
MYMENSINGH	Atia	" "	5·07
DARBHANGA	Darbhanga	" "	5·07
"	Bahera	" "	5·00
HAZARIBAGH	Karagdeha	" "	5·00

The dispersion of the storm was followed by a rapid rise of the barometer over North-East India, and with the exception of some local showers, more particularly on the 19th, the weather was fine and dry until the 22nd. On the following day, the 23rd, a small storm was shown over the north-west angle of the Bay, and rain, which had commenced in Orissa on the previous day, spread to Bengal Proper. The storm passed northward from the head of the Bay into Bengal and gave moderate rain till the 27th. The storm filled up on that day and the weather cleared in South Bengal and Orissa, but in other parts of the province moderate to very heavy rain continued till the

close of the month. The following falls of rain exceeding 5 inches in 24 hours were recorded between the 23rd and the end of the month :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8A.M. of date.
			Inches.
MUZAFFARPUR	Shinpara	23rd June 1900	5·50
JALPAIGURI	Alipore Duar	25th ,,	5·49
JESSORE	Jhenidah	,, ,,	5·30
DINAJPUR	Setabganj	26th ,,	9·50
MYMENSINGH	Netrokona	,, ,,	6·75
NOAKHALI	Harishpur	,, ,,	6·33
MYMENSINGH	Durgapur	,, ,,	6·20
DACCA	Kishorganj	,, ,,	5·99
NOAKHALI	Ramganj	,, ,,	5·60
BACKERGUNGE	Doulatkhan	,, ,,	5·17
,,	Bauphal	,, ,,	5·10
RANGPUR	Peerganj	27th ,,	8·07
DINAJPUR	Ramganj	,, ,,	8·02
,,	Nawabganj	,, ,,	7·80
,,	Dinajpur	,, ,,	7·80
BOGRA	Sherpur	,, ,,	6·82
MALDA	Gajol	,, ,,	6·50
CHITTAGONG	Kutabdia	,, ,,	5·13
PURNEA	Kishanganj	,, ,,	5·10
BHAGALPUR	Colgong	28th ,,	9·09
CHITTAGONG	Fenoa	,, ,,	8·58
MYMENSINGH	Diwanganj	,, ,,	6·50
DINAJPUR	Raiganj	,, ,,	5·47
NOAKHALI	Chhagalnaya	,, ,,	5·24
CHITTAGONG	Chittagong	,, ,,	5·08
,,	Mirsarai	29th ,,	15·18
SONTHAL PARGANAS	Mohagama	,, ,,	9·05
PURNEA	Purnea	,, ,,	5·44
NOAKHALI	Chhagalnaya	,, ,,	5·44
,,	Noakhali	,, ,,	5·28
,,	Fenny	,, ,,	5·15
MYMENSINGH	Netrokona	30th ,,	13·90
,,	Mymensingh	,, ,,	9·05
,,	Durgapur	,, ,,	6·30

The following table gives a summary of the rainfall data of the month for the nine rainfall divisions of the Bengal province :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.	Average actual, June 1900.	Average normal, June.
	Inches.	Inches.	Inches.			
Eastern Bengal	21·27	17·18	+4·09	+24	16·1	15·9
Deltaic ,,	10·14	10·66	−0·52	−5	11·4	12·8
Central ,,	10·90	10·01	+0·89	+9	10·5	11·8
North ,,	20·05	21·14	−1·09	−5	14·1	15·7
Bengal Hills	21·30	27·22	−5·92	−22	17·5	20·5
Orissa	7·94	9·20	−1·26	−14	7·7	10·2
Chota Nagpur	7·74	8·43	−0·69	−8	7·8	10·3
South Bihar	7·55	6·14	+1·41	+23	5·2	7·4
North ,,	11·52	9·05	+2·47	+27	8·2	9·5

The above shows that the total rainfall of the month was about +25 per cent over East Bengal and Bihar, was normal in most of the remaining divisions, but was in slight defect (—22 per cent) in the Bengal Hills.

In Assam there were two periods of stormy weather in the beginning of the month. The first occurred on the 1st and 2nd and was felt over the whole province. The following were the falls exceeding 3″ in 24 hours which were recorded during this period :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KHASI AND JAINTIA HILLS	Cherra Poonjee	1st June 1900	7·11
GOALPARA	Damra	,, ,,	4·65
KHASI AND JAINTIA HILLS	Jawai	,, ,,	4·14
DARRANG	Kabira	,, ,,	3·95
SIBSAGAR	Nigriting	,, ,,	3·76
SYLHET	Sunamgunj	,, ,,	3·59
SIBSAGAR	Jorhat	,, ,,	3·48
KAMRUP	Barduar	,, ,,	3·43
SIBSAGAR	Sibsagar	,, ,,	3·08
KHASI AND JAINTIA HILLS	Cherra Poonjee	2nd ,,	8·33
SYLHET	Chandpur	,, ,,	4·05
,,	Habiganj	,, ,,	3·37

The 3rd, 4th and 5th were fine but on the 6th the second showery period commenced. The rainfall during this period was moderate over the Surma Valley and on the Assam Hills, but was light in the Brahmaputra Valley. The following were the only falls exceeding 2 inches:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
LAKHIMPUR	Wilton	6th June 1900.	6·20
SIBSAGAR	Sonari	"	3·50
LAKHIMPUR	Dibrugarh	"	2·78
LUSHAI HILLS	Demagiri	"	2·60
"	Tenzol	"	2·48
CACHAR	Jaffirband	7th "	3·05
"	Hailakandi	"	2·70
DARRANG	Barpukhuri	8th "	3·60
CACHAR	Jaffirband	"	2·90
"	Monierkhal	"	2·40
"	Jatinga Valley	"	2·07

On the 12th regular rains commenced and the fall, with a partial interruption between the 19th and the 22nd, continued till the close of the month. The fall was heavy in the Cachar, Sylhet and Kamrup districts on the 17th and 18th, as is shown below:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SYLHET	Dullabcherra	17th June 1900.	8·05
CACHAR	Koyaha	"	7·35
KAMRUP	Bharduar	"	6·00
CACHAR	Nemotha	"	5·45
KAMRUP	Boko	"	5·12
"	Kulsi	"	5·07
CACHAR	Hailakandi	"	4·88
SYLHET	Sephinjuri Bil	"	4·46
"	Adam Tila	"	4·44
CACHAR	Badarpur	"	4·12
"	Jaffirband	"	4·00
KAMRUP	Chhaygaon	"	3·83
CACHAR	Barkhola	"	3·65
SYLHET	Karimganj	"	3·34
SYLHET	Langla	17th June 1900.	3·15
"	Habiganj	18th "	4·23
CACHAR	Monierkhal	"	4·10
KAMRUP	Kamalpur	"	3·90
"	Mandakata	"	3·42
"	Tambulpur	"	3·40
CACHAR	Silchar	"	3·15
KAMRUP	Barpeta	19th "	3·65
"	Hajo	"	3·42

Elsewhere the rainfall, though very general, was on the whole moderate in amount. There were heavy falls of rain at Cherra Poonjee on the 1st and 2nd, on the 14th and 15th, and from the 25th to the end of the month. The following gives details:—

STATION.	RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF									
	1st June.	2nd June.	14th June.	15th June.	25th June.	26th June	27th June.	28th June.	29th June.	30th June.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches	Inches.
Cherra Poonjee	7·11	8·33	5·14	10·95	6·14	9·87	4·55	5·45	7·49	8·35

The total rainfall of the month for this station was 102·03 inches, the normal rainfall of June being 91·21 inches.

The following gives comparative data for the plains districts of the province:—

DISTRICT.	RAINFALL.			
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Cachar	17·42	22·00	—4·58	—21
Sylhet	21·09	26·85	—5·76	—21
Goalpara	22·38	23·29	—0·91	— 4
Kamrup	18·24	12·31	+5·93	+48
Darrang	12·84	13·69	—0·85	— 6
Nowgong	11·93	9·68	+2·25	+23
Sibsagar	14·15	12·43	+1·72	+14
Lakhimpur	15·02	18·00	—2·98	—17

The above shows that the total rainfall of the month was in slight to large excess in the Kamrup and Nowgong districts, in slight defect in Cachar and Sylhet, and normal elsewhere. On the hills the rainfall of the month was exactly normal.

The rainfall of the month was lighter and less general than usual over the North-West Provinces. Moderate showers occurred over all parts of the province on the 2nd and 3rd and in the sub-montane divisions from the 2nd to the 4th. The rainfall amounts were light, except in the sub-montane division where the following falls exceeding 2″ were recorded:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
ALMORA . . .	Champawat . .	3rd June 1900	2·73
NAINI TAL . . .	Naini Tal . . .	,, ,, ,,	2·46
,, ,,	Kathgodam . .	4th ,, ,,	3·09

In the west and sub-montane divisions there were light showers between the 13th and the 20th, but in general the weather was fine until the 22nd, when another burst of showery weather set in, lasting until the 27th. The showers were not, however, heavy and exceeded 2″ only in the cases quoted below:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
FYZABAD . . .	Bikapur . . .	22nd June 1900	2·84
,,	Jalalpur . . .	,, ,,	2·66
BASTI	Harraiya . . .	,, ,,	2·51
HARDOI . . .	Hardoi . . .	,, ,,	2·13
NAINI TAL . . .	Naini Tal . . .	23rd ,,	2·23
ETAWA . . .	Auraiya . . .	,, ,,	2·19
GARHWAL . . .	Okhimath . . .	,, ,,	2·13
FARUKHABAD . .	Farukhabad . .	,, ,,	2·01
BALLIA . . .	Ballia . . .	25th ,,	2·50

From the 28th to the end of the month the weather was fine. There was thus no incursion of monsoon winds and monsoon rainfall throughout the month, and the general rainfall of the province was largely below the normal in all divisions. The following gives comparative rainfall data for eight rainfall divisions of the province:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.	Average actual, June 1900.	Average normal, June.
	Inches.	Inches.	Inches.			
N.-W. P., East .	1·78	4·29	—2·51	—59	2·8	5·0
South Oudh . .	1·37	4·39	—3·02	—69	2·7	4·6
North ,, . .	2·22	4·93	—2·71	—55	3·9	5·6
N.-W. P., Central .	0·69	3·53	—2·84	—80	1·9	4·4
Do., West .	0·93	2·35	—1·42	—60	2·8	3·2
Do., East Sub-montane.	3·30	5·54	—2·24	—40	4·4	6·2
Do., West Sub-montane.	1·84	5·15	—3·31	—64	3·5	5·4
Do., Hills .	5·13	7·53	—2·40	—32	7·1	10·3

The above shows that for the whole province only about half the normal amount of rain was received, and in the central division only about one-fifth.

In the Punjab the rainfall was similar in time distribution to that in the North-Western Provinces, but was lighter and more scattered. There was no incursion of monsoon winds into the province during the month, and the rainfall was confined to light showers falling during thunder and duststorms. In the south, central, hill, and submontane divisions of the Punjab, there were some showers between the 2nd and the 4th, but except in Gurgaon the amounts received were small and unimportant. The following were the falls exceeding 1 inch in 24 hours:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GURGAON . . .	Hattin . . .	3rd June 1900.	1·35
,, . . .	Punahana . . .	,, ,, .	1·10
,, . . .	Nuh	,, ,, .	1·05

Fine weather prevailed until the 13th, when showers commenced and lasted until the 19th. On this occasion

also the rainfall was light and scattered, but the following falls exceeding 1 inch in 24 hours were recorded:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
UMBALLA	Dadupur	13th June 1900.	1·65
GURDASPUR	Dalhousie	" "	1·28
KANGRA	Palampur	14th "	1·16
"	Kulu	" "	1·12
FEROZEPORE	Moga	17th "	1·40
PATIALA STATE	Barthala	" "	1·25
GURGAON	Hattin	" "	1·02

On the 22nd the third and last showery period commenced and lasted till the 25th. This rainfall was heaviest in the Umballa division and in the Simla and Kangra hills, where the following amounts were recorded:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SIMLA	Barauli	22nd June 1900	1·16
KANGRA	Dharmsala	23rd "	3·00
"	Palampur	" "	2·50
SIMLA	Kasauli	" "	2·38
UMBALLA	Dadupur	" "	1·75
"	Naraingarh	" "	1·05
"	Dadupur	24th "	3·20
"	Naraingarh	" "	2·87
SIMLA	Kasauli	25th "	1·46

In other parts of the province the rainfall was light and unimportant. The following table gives comparative rainfall data for the seven rainfall divisions of the province:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.	Average actual, June 1900.	Average normal, June.
	Inches.	Inches.	Inches.			
South-East Punjab	1·37	2·52	—1·15	—46	3·4	2·9
South Punjab	0·50	1·62	—1·12	—69	1·2	2·2
Central "	0·29	1·58	—1·29	—82	0·9	2·2
Punjab Submontane	0·75	2·73	—1·98	—73	1·4	3·1
" Hills	2·21	4·78	—2·57	—54	3·6	6·9
North Punjab	0·37	0·89	—0·52	—58	1·1	1·6
West "	0·20	0·67	—0·47	—70	0·6	1·3

The above shows a large deficiency in all parts of the province, but particularly in the central division, where only 0·29″ of rain fell during the month instead of the normal amount of 1·58 inches.

The rainfall of the present monsoon in June was thus in marked contrast in the North-Western Provinces and the Punjab to that for the same month last year. In June 1899 the rainfall was in very large excess in all the divisions of the North-Western Provinces, and was in considerable to large excess in all the divisions of the Punjab.

Baluchistan had practically no rain throughout the month. Kashmir like the provinces of Northern India received rain during three periods. The first occurred on the 1st and 2nd; the second lasted from the 13th to the 17th, and the third from the 22nd to the 26th. The rainfall was generally light, but there occurred a local fall of 2·56 inches at Vantipore on the 1st and of 1·12 inches at Uri on the 26th, and the total rainfall of the month was apparently considerably less than usual.

Western Rajputana received some local showers during dust and thunderstorms between the 4th and the 9th. The heaviest of these were as follows:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JODHPUR	Jodhpur (Sursagar)	4th June 1900	1·35
"	"	" "	1·03
"	Bilara	5th "	1·27
"	Merta	" "	0·50
JAISALMER	Bap	6th "	1·40

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JODHPUR	Pali	6th June	0·45
,,	Phalodi	7th ,,	1·55
,,	Bali	,, ,,	0·53
,,	Nawa	8th ,,	0·51
,,	Nagaur	9th ,,	0·45

The total rainfall of the division was only about one fifth of the normal. Eastern Rajputana had occasional rain from showers between the 1st and the 9th and between the 17th and the 25th. The rainfall amounts were generally small, seldom exceeding 0·50″ in 24 hours and the total rainfall of the month was about one sixth of the normal fall in June. The following gives comparative rainfall data for some of the more important states :—

STATE.	RAINFALL.			
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
	Inch.	Inches.	Inches.	
Jodhpur	0·37	1·82	—1·45	—80
Jaipur	0·31	2·65	—2·34	—88
Ajmer	0·21	2·35	—2·14	—91
Bharatpur	0·78	2·20	—1·42	—65
Alwar	0·65	3·53	—2·88	—82
Kotah	0·89	4·05	—3·16	—78
Karauli	0·44	3·63	—3·19	—88
Udaipur	0·24	4·30	—4·06	—94
Dholpur	0·45	...	...	...
Sirohi	0	4·97	—4·97	—100

The Central India states received scattered showers throughout the month. The showers were somewhat heavier than those received in Rajputana and amounts exceeding 1 inch in 24 hours were recorded on some occasions. This is shown below :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GWALIOR	Morar	2nd June	1·15
,,	Gwalior Residency	3rd ,,	1·95
,,	Neemuch	9th ,,	1·33
,,	Sonkach	13th ,,	1·70
,,	Dhar	18th ,,	3·71
,,	Barwani	19th ,,	1·04
BHOPAL AGENCY	Sehore	21st ,,	1·31
,,	Ashta	24th ,,	1·50
GWALIOR	Shujaulpur	25th ,,	1·29
BUNDELKHAND	Orchha	,, ,,	1·23
GWALIOR	Dhar	27th ,,	2·65
,,	Sailana	28th ,,	1·51
,,	Sirdarpore	29th ,,	1·69
,,	Sailana	,, ,,	1·18

The total fall of the month was, however, as deficient relatively to the normal, as in Rajputana and amounted to only about one fifth of the average. The following gives comparative data for some of the more important states and shows the lightness of the month's rainfall :—

STATE.	RAINFALL.			
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Rewah	0·70	7·73	—7·03	—91
Bundelkhand	0·51	6·00	—5·49	—92
Gwalior	1·30	4·61	—3·31	—72
Bhopal	1·79	7·39	—5·60	—76
Indore	1·62	6·65	—5·03	—76
Rutlam	1·36	5·41	—4·05	—75
Nagode	0·77	5·97	—5·20	—87
Maihar	1·01	7·85	—6·84	—87

The Central Provinces received much less rain than usual. It will be remembered that advances of monsoon winds occurred on the West coast between the 12th and the 16th and again between the 24th and the end of the month. These periods agreed with moderate bursts of

rainfall over the Central Provinces, but even during these periods the falls of rain were light, while at other times nothing but light scattered showers was received. The earlier burst of rainfall was the lighter of the two and in the central and west divisions was very light indeed, but in the east division the following falls of more than 1″ in 24 hours were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SAMBALPUR	Bargarh	12th June, 1900.	1·21
,,	Sambalpur	13th ,,	3·80
RAIPUR	Dhamtari	,, ,,	3·80
SAMBALPUR	Bargarh	,, ,,	2·62
RAIPUR	Raipur	,, ,,	2·50
,,	Drug	,, ,,	1·64
,,	Raipur	14th ,,	3·50
SAMBALPUR	Sambalpur	,, ,,	2·90
,,	Bargarh	,, ,,	2·04
RAIPUR	Drug	,, ,,	1·44
,,	Simga	,, ,,	1·02

The second burst of rain was more general and heavier than that described above and the following moderate amounts in 24 hours were received :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SAMBALPUR	Bargarh	23rd June	2·33
CHANDA	Warora	,, ,,	2·16
SEONI	Seoni	,, ,,	1·61
CHANDA	Sironcha	24th ,,	2·75
RAIPUR	Drug	,, ,,	1·84
,,	Raipur	,, ,,	1·80
CHANDA	Brahmapuri	,, ,,	1·66
NAGPUR	Ramtek	25th ,,	2·45
RAIPUR	Simga	,, ,,	1·70
BILASPUR	Pandaria	,, ,,	1·54
CHANDA	Brahmapuri	,, ,,	1·52
SAMBALPUR	Sarangarh	26th ,,	2·75
NIMAR	Harsud	26th June	2·73
SAMBALPUR	Raigarh	,, ,,	1·91
BILASPUR	Bilaspur	,, ,,	1·80
,,	Janjgir	,, ,,	1·50
RAIPUR	Drug	27th ,,	1·50
,,	Simga	29th ,,	2·10
SAMBALPUR	Sarangarh	,, ,,	1·35

In Berar rain fell between the 7th and the 13th and between the 20th and the 29th. The rainfall was heavier than in the western and central divisions of the Central Provinces, both absolutely and relatively to the normal.

The following gives a summary of the rainfall data of the month for the three rainfall divisions of the Central Provinces and for Berar :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.	Average actual, June 1900.	Average normal, June.
	Inches.	Inches.	Inches.			
Central Provinces West	2·48	7·49	−5·01	−67	4·8	8·8
,, ,, Central	2·11	8·11	−6·00	−74	4·2	9·1
,, ,, East	6·20	8·31	−2·11	−25	7·7	9·2
Berar	4·37	7·17	−2·80	−39	7·3	...

As mentioned above the advance of the monsoon current over the Arabian sea was greatly delayed. General rain commenced along the South Konkan coast on the 12th and was heavy from the 16th to the 20th. It then decreased rapidly and was light until the 23rd. On the 24th heavy rain commenced on the south-west coast. It extended up the Konkan coast as far as Bombay on the 25th and continued to fall over this area until the close of the month. The rainfall never, however, extended beyond Bombay and the whole of Gujarat, Kathiawar and Sind were actually or practically rainless throughout the month.

There was a slight burst of rain on the Konkan coast on the 9th, but regular monsoon rainfall did not com-

mence in the North Kanara and Ratnagiri coast districts till the 13th, and in the Kolaba and Thana coast districts until the 24th. The rainfall was heavyish on the North Kanara coast from the 16th to the 21st, as is shown by the following average rainfall data for this district for these days:—

District.	Average actual rainfall during 24 hours preceding 8 A.M. of						
	16th June.	17th June.	18th June.	19th June.	20th June.	21st June.	Total of period.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
North-Kanara . . .	2·15	2·26	2·01	2·42	2·34	2·65	13·83

From the 25th to the end of the month, though the rainfall was general all along the coast, the falls were not so heavy as usual. The following gives average rainfall data for the coast districts for each day from the 25th to the 30th:—

District.	Average actual rainfall during 24 hours preceding 8 A.M. of						
	25th June.	26th June.	27th June.	28th June.	29th June.	30th June.	Total of period.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
North Kanara . . .	1·62	1·63	1·81	3·72	2·62	2·88	14·28
Savantvadi	5·50	1·36	2·06	3·52	2·04	2·23	16·71
Ratnagiri	2·41	2·30	1·85	5·69	1·99	1·69	15·93
Kolaba	1·78	1·36	1·39	2·20	0·86	0·40	7·99
Thana	1·77	1·92	0·25	2·12	0·93	0·02	7·01

The above shows a heavyish burst of rain in the Ratnagiri district on the 28th, and the following falls exceeding 6 inches in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ratnagiri .	Guhagar	28th June . .	10·80
" .	Dapoli	" " . .	10·03
" .	Rajapur	" " . .	8·55
" .	Ratnagiri	" " . .	8·32
" .	Sangameshvar . . .	" " . .	6·90
" .	Khed	" " . .	6·35

The following gives comparative rainfall data for the four districts of the Konkan division for which normal data are available:—

District.	Rainfall.			
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
North Kanara	36·58	25·70	+10·88	+42
Ratnagiri	27·20	34·98	—7·78	—22
Kolaba	10·51	28·56	—18·05	—63
Thana	7·76	19·66	—11·90	—61

The above shows that the month's rainfall was largely above the normal in the North Kanara district, about normal in the Ratnagiri district, and largely below the normal in the Kolaba and Thana districts.

In the Karnatak division there was no rain for the first five days, thereafter a period of light scattered showers set in and lasted until the 24th, after which date and until the close of the month the showers became general and daily. The rainfall was heavy in parts of the Belgaum division, more particularly at Chandgad, Khanapur and Sampgaon where the normal fall was considerably exceeded, but in general the rainfall was about normal. The following gives comparative rainfall data for the four districts of the division:—

District.	Rainfall.			
	Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Dharwar	4·27	3·54	+0·73	+21
Bijapur	5·22	3·59	+1·63	+45
Belgaum	9·55	8·24	+1·31	+16
Kolhapur and other Southern Maratha Country States . .	5·05	5·61	—0·56	—10

The Deccan and Khandesh divisions received rain between the 9th and the 13th, and again between the 22nd and the end of the month. The falls were moderately heavy, and the total fall of the month was about normal. This is shown by the following table which

gives comparative data for the different districts of these two divisions :—

Division.	District.	Rainfall. Average actual, June. 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Deccan . .	Satara . .	5·19	7·09	—1·90	—27
,, . .	Sholapur . .	5·31	4·64	+0·67	+14
,, . .	Poona . .	3·71	7·84	—4·13	—53
Khandesh . .	Ahmednagar .	5·13	4·27	+0·86	+20
,, . .	Nasik . .	4·59	6·89	—2·30	—33
,, . .	Khandesh . .	2·70	5·19	—2·49	—48

The month was practically rainless over the whole of Gujarat, Kathiawar and Sind, though there were one or two stations which received purely local falls exceeding 1 inch in 24 hours. The data for these stations are given below :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Surat . . .	Valod . . .	26th June .	1·75
Kathiawar . .	Mahua . . .	29th ,, .	2·97
Surat . . .	Pardi . . .	,, ,, .	1·47

The extent of the deficiency in the month's rainfall is shown in the following table which gives comparative data for the different districts of North Bombay :—

District.	Rainfall. Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.
	Inch.	Inches.	Inches.	
Surat	0·69	11·08	—10·39	— 94
Broach	0	5·61	—5·61	—100
Kaira	0	4·55	—4·55	—100
Panch Mahals	0·57	4·76	—4·19	— 88
Ahmedabad	0·07	4·11	—4·04	— 98
Rewa Kantha	0·35	6·03	—5·68	— 94
Mahi Kantha	0	3·94	—3·94	—100
Palanpur	0	2·93	—2·93	—100
Kathiawar	0·24	3·66	—3·42	— 93
Cutch	0	2·18	—2·18	—100

The above shows that no rainfall whatever was received in the Broach, Kaira, Mahi Kantha, Palanpur and Cutch districts, and that the rainfall was more than 90 per cent. in defect in Surat, Ahmedabad, Rewa Kantha and Kathiawar. The following gives comparative data for the different divisions of the Bombay Presidency :—

Division.	Rainfall. Average actual, June 1900.	Average normal, June.	Variation of actual from normal, June 1900.	Percentage variation from normal.	Number of rainy days. Average actual, June 1900.	Average normal, June.
	Inches.	Inches.	Inches.			
Konkan . . .	21·87	27·14	—5·27	— 19	13·1	19·2
Bombay Deccan . .	5·21	5·80	—0·59	— 10	7·5	8·2
Khandesh . . .	3·84	5·69	—1·85	— 33	5·2	7·6
Gujarat . . .	0·29	6·26	—5·97	— 95	0·7	6·6
Kathiawar and Cutch .	0·19	3·26	—3·07	— 94	0·3	3·6
Sind	0	0·20	—0·20	—100	0	...
Baluchistan Hills .	0·01	0·45	—0·44	— 98	0	...

The Malabar and South Canara districts of Madras and the Travancore State received comparatively little rain until the 11th, when the first considerable burst of the monsoon set in. This burst continued until the 20th, and the following table gives the average daily falls from the 11th to the 20th for the above three districts :—

Ditrict.	Average actual rainfall during 24 hours preceding 8 A.M. of 11th June.	12th June.	13th June.	14th June.	15th June.	16th June.	17th June.	18th June.	19th June.	20th June.	Total rainfall of period 11th to 20th June.
	Inches.	Inches.	Inches.	Inches	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Malabar .	1·63	1·46	1·73	1·23	0·98	2·65	3·19	3·16	0·74	1·25	18·02
South Canara	0·49	3·28	1·49	0·53	1·94	3·12	3·20	5·52	3·10	1·91	24·58
Travancore State.	1·01	1·48	1·33	1·15	0·54	1·24	1·24	1·17	0·85	0·82	10·83

The rainfall was comparatively light from the 21st to the 23rd, and then on the 24th heavy rain recommenced and continued until the close of the month. There were no very heavy falls of rain during the month, but falls,

exceeding 7 inches in 24 hours were recorded at the following stations on the following dates:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SOUTH CANARA	Mulki	17th June	7·69
" "	Karkala	18th "	9·65
" "	Udipi	" "	7·15
MALABAR	Bodagara	24th "	7·96
"	Cochin	" "	7·30
TRAVANCORE STATE	Ettamanur	" "	7·16
MALABAR	Vayittiri	25th "	8·30

The Madura and Tinnevelly districts received scattered showers throughout the month. They were not heavy, but the total fall of the division of Madras South was nearly normal. In the south central division of Madras, comprising the Coimbatore and Salem districts there were two general falls of rain, one on the 1st, the second between the 5th and the 7th. During the remainder of the month only light showers were recorded. The total rainfall of this division was also about normal. The central division of Madras had frequent showers, more particularly between the 5th and the 7th, between the 18th and the 21st, and between the 27th and the 30th. The amounts were not large, the following having been the more important falls of over 2″ in 24 hours:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BELLARY	Hospet	20th June	2·68
"	Kudligi	" "	2·47
CUDDAPAH	Kadiri	" "	2·30
KURNOOL	Giddalur	21st "	2·62
"	Atmakur	" "	2·50

For the whole of the central division the month's rainfall was about the average.

The north division of the east coast had two periods of heavy rain coinciding with the periods of development of the cyclonic storms over the Bay. The first period lasted from the 11th to the 14th. The rainfall was heaviest in the Ganjam district and was more than 3 inches in 24 hours at the following places:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of data.
			Inches.
GANJAM	Pundi	11th June	3·36
	Daringabadi	" "	3·05
	"	12th "	5·50
	Ramagiri	" "	5·25
	Chatrapur	" "	4·80
	Sompeta	" "	4·23
	Rambha	" "	3·45
	Gopalpur	" "	3·42
	Purushottapur	" "	3·13
	Parlakimedi	" "	3·05
	Balliguda	13th "	10·11
	Udayagiri	" "	6·90
	Russellkonda	" "	4·06

The second period ran from the 21st to the 25th, and the rain was very general throughout the division. The heaviest amounts were as follows:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GANJAM	Ramagiri	22nd June	2·33
	Parlakimedi	23rd "	2·80
	Balliguda	" "	2·40
	Rambha	" "	2·30
	Russellkonda	" "	1·66
	Tekkali	" "	1·65
	Gopalpur	" "	1·54

The central division of the east coast received scattered showers from the 17th to the end of the month and the total rainfall was about three-quarters of the normal fall. The south division of the east coast received light scattered showers, generally in the middle and second half of the month, the number and extent of the showers diminishing southward. There were, however, moderate showers in the first week of the month in the Tanjore and Trichi-

nopoly districts during which the following falls of over 1" in 24 hours were received :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TRICHINOPOLY . .	Kilappahiwer . .	1st June	1·20
"	Lalgudi . . .	" "	1·15
TANJORE . . .	Kudavasal . . .	4th "	2·13
TRICHINOPOLY . .	Lalgudi . . .	" "	1·05
TANJORE . . .	Tiruvadi . . .	7th "	2·34
TRICHINOPOLY . .	Ariyalur . . .	" "	2·09
"	Perambalur . . .	" "	1·35

The total rainfall in this division was about two-thirds of the normal.

The following gives comparative data for the 22 collectorates of the Presidency :—

DISTRICT.	RAINFALL.			
	Actual, June 1900.	Normal, June.	Variatio actual from normal, June 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Ganjam . . .	8·50	5·72	+2·78	+49
Vizagapatam . .	4·16	4·69	−0·53	−11
Godavari . . .	2·55	4·65	−2·10	−45
Kistna	2·39	3·94	−1·55	−39
Nellore . . .	1·23	1·64	−0·41	−25
Chingleput . . .	1·25	2·11	−0·86	−41
Madras . . .	1·46	2·08	−0·62	−30
North Arcot . . .	1·67	2·72	−1·05	−39
South Arcot . . .	0·84	1·95	−1·11	−57
Tanjore . . .	0·82	1·39	−0·57	−41
Trichinopoly . .	1·41	1·40	+0·01	+1
Madura . . .	0·58	1·04	−0·46	−44
Tinnevelly . . .	1·09	0·87	+0·22	+25
Malabar . . .	35·25	33·21	+2·04	+6
South Canara . .	46·97	39·64	+7·33	+18
Salem	1·86	2·24	−0·38	−17
Coimbatore . . .	1·68	1·58	+0·10	+6
Nilgiris . . .	10·85	10·19	+0·66	+6
Cuddapah . . .	1·99	2·30	−0·31	−13
Anantapur . . .	1·57	2·35	−0·78	−33
Bellary . . .	2·68	2·59	+0·09	+3
Kurnool . . .	3·07	3·01	+0·06	+2

Table

Abstract of Observations taken at 8 A.M. at 219 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	I.—Burma Coast and Bay Islands.				−·014								86·5	+0·5	77·2	+1·3	81·8	+0·9	9·3					17·7
1	Tenasserim and Bay Islands.	Car Nicobar	25	29·739		29·691	29·791	27th & 28th.	29·631	10th	·163	82·3	87·9		79·2		83·6		8·7	91·0	30th	75·9	9th	15·1
		Port Blair	61	29·759	−·002	29·751	29·837	4th	29·608	10th	·229	82·9	87·1		79·2*		83·1*		7·9	92·2	6th	74·6	2nd	17·6
		Mergui	96	29·765	−·007	29·792	29·835	26th	29·674	10th	·161	79·9	86·4	+1·0	75·4	+3·1	80·9	+2·1	11·0	92·1	2 days	72·4	19th	19·7
		Tavoy	26	29·822	−·021	29·779	29·889	25th	29·732	10th	·157	78·8	85·4	+0·7	75·8	+1·2	80·6	+1·0	9·6	91·2	5th	74·0	5 days	17·2
		Moulmein	94	29·717	−·010	29·748	29·812	4th	29·590	10th	·222	78·8	85·2	+0·9	75·9	+1·4	80·6	+1·2	9·3	90·0	4th	73·3	24th	16·7
2	Lower Burma	Rangoon	41	29·741	−·019	29·719	29·848	4th	29·622	10th	·226	79·5	85·5	−0·7	76·9	+0·5	81·2	−0·1	8·6	89·6	19th	74·9	4 days	14·7
		Bassein	27	29·740	−·018	29·702	29·849	4th	29·588	10th	·261	80·0	86·1	0	77·8	+1·6	82·0	+0·8	8·3	92·2	2nd	74·2	17th	18·0
		Diamond Island	41	29·730	−·016	29·706	29·838	4th	29·561	10th	·277	82·1	85·3	−0·2	79·1	?	82·2	?	6·2	89·6	7th	73·7	17th	15·9
5	Arakan	Akyab	20	29·670	?	29·633	29·847	4th	29·502	16th	·345	82·1	88·1	+2·2						96·4	3rd			
3	Central Burma	Toungoo	183	29·588	−·006	29·713	29·706	4th	29·474	16th	·232	81·9	89·2	+0·8	75·2	0	82·2	+0·4	14·0	97·6	4th	73·1	24th	24·5
	II.—Burma Inland				+·005								92·4	+0·5	77·0	+0·6	84·7	+0·5	15·4					28·3
3	Central Burma	Thayetmyo	134	29·618	+·007	29·694	29·752	4th	29·486	16th	·266	82·2	91·2	+0·2	77·6	+1·2	84·4	+0·7	13·6	101·9	4th	73·9	18th	28·0
4	Upper Burma	Minbu	165	29·565	−·005	29·674	29·706	3rd	29·401	16th	·305	81·0	91·8	−0·8	77·8	+0·4	84·8	−0·2	14·0	103·6	2nd	74·1	2 days	29·5
		Yamethin	657	29·089	+·005	29·694	29·218	4th	28·931	16th	·287	80·9	92·6	+0·3	75·6	+0·3	84·1	+0·3	17·0	102·0	1st	73·2	2 days	28·8
		Mandalay	250	29·491	+·016	29·688	29·641	5th	29·323	16th	·318	84·4	95·9	+1·3	78·6	+0·3	87·3	+0·8	17·3	100·6	1st & 2nd.	74·6	2nd	26·0
		Kindat	377	29·338	?	29·669	29·503	3rd	29·172	16th	·331	80·3	90·0	−0·3	76·9	+0·7	83·5	+0·2	13·1	99·8	6th	73·8	13th	26·0
		Bhamo	381	29·332	+·003	29·668	29·474	3rd	29·174	16th	·300	80·0	93·0	+2·1	75·4	+0·6	84·2	+1·4	17·6	101·6	5th	70·1	2nd	31·5
9(a)	Burma Hill Stations.	Maymyo										71·4	79·8		61·9		70·9		17·9	88·0	26th	55·0	1st	33·0
		Taunggyi										69·1	74·5	−3·7	64·4	+0·2	69·5	−1·8	10·1	80·2	2nd	62·5	2 days	17·7
		Lashio		26·972	−·020		27·094	1st	26·822	15th	·272	75·1	86·9	+2·1	69·9	+0·9	78·4	+1·5	17·0	95·5	5th	65·0	1st	30·5
	III.—Assam				−·011								88·7	+0·7	76·7	+0·3	82·7	+0·5	12·0					27·2
7	Surma	Silchar	104	29·571	−·014	29·627	29·763	3rd	29·379	16th	·384	81·2	90·8	+2·1	76·6	+0·5	83·7	+1·3	14·2	99·6	12th	70·3	2 days	29·3
9	Brahmaputra	Sibsagar	333	29·348	−·008	29·637	29·533	3rd	29·159	15th	·374	80·2	89·1	−0·6	76·7	+0·1	82·9	−0·3	12·4	97·2	12th	70·0	1st	27·2
		Dhubri	115	29·517	−·012	29·587	29·743	2 days	29·201	15th	·542	79·8	86·3	+0·7	76·8	+0·4	81·6	+0·6	9·5	94·7	12th	69·7	1st	25·0
	IV.—Bengal and Orissa				−·014								90·6	−0·1	78·6	+0·4	84·6	+0·1	12·1					27·5
6	East Bengal	Chittagong	87	29·582	−·016	29·616	29·766	5th	29·386	16th	·380	82·1	87·7	+1·5	76·7	+0·2	82·2	+0·9	11·0	94·0	11th	71·1	19th	22·9
		Noakhali	43	29·597		29·587	29·803	3rd	29·429	16th	·374	81·1	88·2		75·1		81·7		13·1	93·7	3 days	68·3	18th	25·4
		Comilla	36	29·606		29·590	29·811	4th	29·402	15th	·409	81·2	89·1		76·8		83·0		12·3	98·3	11th	70·8	2nd	27·5
		Sirajganj	49	29·553		29·552	29·792	4th	29·221	15th	·571	80·8	88·4		77·3		82·9		11·1	95·3	11th & 12th.	69·7	1st	25·6
		Narayanganj	26	29·601	−·018	29·575	29·826	4th	29·378	15th	·448	81·6	88·4	−0·6	77·7	−0·6	83·1	−0·6	10·7	95·6	11th	71·2	2nd	24·4
		Barisal	13	29·610	−·016	29·568	29·839	4th	29·411	14th	·428	83·9	89·3	+0·3	78·7	+0·9	84·0	+0·6	10·6	95·3	5th	72·6	2 days	22·7
		Mymensingh	59	29·572	−·021	29·582	29·789	4th	29·267	15th	·522	80·9	87·6	+0·4	77·3	+0·8	82·5	+0·6	10·3	94·7	11th	69·6	2 days	25·1
10	Deltaic Bengal	Faridpur	46	29·584		29·578	29·823	4th	29·351	14th	·472	81·8	89·7		77·2		83·5		12·5	95·8	11th	69·9	11th	25·9
		Jessore	33	29·567	−·024	29·547	29·820	4th	29·314	14th	·506	83·2	90·6	−1·0	78·8	−0·1	84·7	−0·6	11·8	96·5	11th	71·2	3rd	25·3
		Calcutta	21	29·573	−·011	29·539	29·837	4th	29·288	14th	·549	83·9	92·1	+0·8	79·3	+0·5	85·7	+0·7	12·8	99·4	19th	70·2	3rd	29·2
		Saugor Island	25	29·562	−·020	29·531	29·818	4th	29·310	14th	·508	85·5	90·5	−0·2	82·0	+0·1	86·3	−0·1	8·5	95·4	11th	74·6	19th	20·8
		Krishnagar	47	29·552		29·546	29·816	4th	29·256	14th	·560	83·4	91·5		78·8		85·2		12·7	97·7	11th & 19th.	71·2	3rd	26·5
		Midnapore	149	29·435		29·529	29·694	4th	29·114	14th	·580	84·5	93·8		79·9		86·9		13·9	101·3	19th	68·7	3rd	32·6

* Mean of 29 days.

I.

in India, Burma, etc., in June 1900.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity: Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M.: Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall: Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 30th June 1900.	Normal rainfall for period, 1st to 30th June.	Variation from normal of period, 1st to 30th June.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				27·95	27·32	+2·57					I.—Burma Coast and Bay Islands.		
				1	3	12	5	1	S. 49° W	5·3	5·3			86	·950	8·7	11			10·49			10·49			2·07	Car Nicobar†	Andaman and Nicobar Islands.	
						13	15	2	S. 73° W.	13·3		10·0	+ 33	86	·965	7·9	21			11·55	18·79	− 7·24	11·55	18·79	− 7·24	1·78	Port Blair .		1
				1	3	1			S.	2·1	1·9	1·9	0	92	·910	5·6	25			35·60	30·13	+ 5·47	35·60	30·13	+ 5·47	9·61	Mergui.		
25						1		1	N. 52° W.	0·6				92	·916	7·3	27			47·87	39·39	+ 8·48	47·87	39·39	+ 8·48	12·11	Tavoy.		
27	1									3·8	4·2	3·4	+ 24	92	·910	7·7	28	27·00	+1·00	35·19	35·72	− 0·53	35·19	35·72	− 0·53	8·26	Moulmein.		
			1	4	11	10	4		S. 19° W.	5·1		5·3	− 4	94	·953	8·7	21	23·27	−2·27	18·71	17·51	+ 1·20	18·71	17·51	+ 1·20	4·64	Rangoon .	Lower Burma.	2
			1	13	4	4	1		S. 22° E.	5·4		4·0	+ 35	93	·956	7·8	27	24·82	+2·18	30·66	22·56	+ 8·10	30·66	22·56	+ 8·10	8·04	Bassein.		
7																													
		1	3	3	3	17	2	1	S. 30° W.	11·3	11·3	8·5	+ 33	86	·947	8·8	25	21·73	+3·27	26·46	23·20	+ 3·26	26·46	23·20	+ 3·26	6·40	Diamond Island.		
	1	3	8	9	7	1	1		S. 54° E.	2·5		3·9	− 36	89	·981	7·9	20	23·09	−3·09	48·38	43·99	+ 4·39	48·38	43·99	+ 4·39	7·19	Akyab .	Arakan.	5
			2	20	6	1		1	S. 36° E.	6·3	6·2	4·8	+ 29	87	·958	7·6	20	20·91	−0·91	14·58	14·61	− 0·03	14·58	14·61	− 0·03	2·45	Toungoo .	Central Burma	3
																				9·13	8·35	+0·78					II.—Burma Inland.		
2				8	18	1		1	S. 10° E.	6·0		8·2	− 27	82	·898	8·4	18	15·00	+3·00	13·15	6·94	+ 6·21	13·15	6·94	+ 6·21	3·35	Thayetmyo.	Central Burma.	3
		1	1	23	4	1			S. 39° E.	9·4	11·2			83	·886	6·6	14			9·01	3·90	+ 5·11	9·01	3·90	+ 5·11	2·12	Minbu .	Upper Burma.	4
2				16	12				S. 26° E.	10·0	10·2			84	·878	7·7	14			6·28	4·50	+ 1·78	6·28	4·50	+ 1·78	1·88	Yamethin.		
2				3	20	5			S. 3° W.	9·1	9·2			77	·903	4·7	9			3·06	6·21	− 3·15	3·06	6·21	− 3·15	0·88	Mandalay.		
24		1	1	2	1			1	S. 67° E.	1·1	1·1			89	·927	8·0	17			15·43	14·87	+ 0·56	15·43	14·87	+ 0·56	4·32	Kindat.		
9	1			1		8	7	4	S. 80° W.	2·5	2·9			88	·899	9·0	15			7·84	13·66	− 5·82	7·84	13·66	− 5·82	1·36	Bhamo.		
11		3		1		15			S. 42° W.					84	·645												Maymyo .	Burma Hill Stations.	1(a)
				1	14	9	4	2	S. 29° W.					89	·633	8·2	15			5·47	11·56	− 3·09	8·47	11·56	− 3·09	1·65	Taunggyi.		
														84	·732	8·4	16			10·42	10·23	+ 0·19	10·42	10·23	+ 0·19	3·07	Lashio.		
																				18·11	19·65	−1·54					III.—Assam.		
27			1		1			1	S. 45° E.	1·2	2·1	3·1	− 32	89	·956	7·9	21	21·33	−0·33	18·29	20·73	− 2·44	18·29	20·73	− 2·44	3·15	Silchar .	Surma.	7
12	6	8				3		1	N. 16° E.	3·5	3·2	2·6	+ 23	92	·955	8·1	15	16·70	−1·70	16·78	13·69	+ 3·09	16·78	13·69	+ 3·09	3·34	Sibsagar .	Brahmaputra.	9
2		9	13	1	3	2			N. 57° E.	6·4	7·6	4·9	+ 55	91	·927	6·9	16	17·87	−1·87	19·27	24·53	− 5·26	19·27	24·53	− 5·26	2·83	Dhubri.		
																				14·11	13·65	+0·46					IV.—Bengal and Orissa.		
		6	5	15	3			1	S. 65° E.	8·1	8·0	6·9	+ 16	86	·949	7·9	18	16·62	+1·38	27·44	22·69	+ 4·75	27·44	22·69	+ 4·75	4·32	Chittagong	East Bengal.	6
	1	2	9	9	4	4	1		S. 50° E.	5·5	5·0			90	·964	7·6	20	18·35	+1·65	34·57	24·19	+10·38	34·57	24·19	+10·38	5·28	Noakhali.		
2			7	10	11				S. 38° E.	7·6				83	·880	7·6	16	17·30	−1·30	20·56	17·65	+ 2·91	20·56	17·65	+ 2·91	3·30	Comilla.		
3	2	5	7	6	4	3			S. 69° E.	2·4	2·5			91	·957	8·1	14	13·09	+0·91	16·11	11·12	+ 4·99	16·11	11·12	+ 4·99	2·34	Sirajganj.		
1	1	2	4	13	4	1	1	3	S. 51° E.	8·3		7·2	+ 15	89	·964	7·3	16	15·08	+0·92	9·57	13·06	− 3·49	9·57	13·06	− 3·49	2·20	Narayanganj		
2		4	2	8	8	3	2	1	S. 27° W.	4·6				87	1·014	8·2	16	16·88	−0·88	18·41	16·02	+ 2·39	18·41	16·02	+ 2·39	2·07	Barisal.		
13			7	8	1	1			S. 60° E.	0·6	0·6			89	·935	8·11	12	18·42	−6·42	20·81	18·18	+ 2·63	20·81	18·18	+ 2·63	9·05	Mymensingh.		
15		1	2	6	5	1			S. 34° E.	2·4	2·5			90	·986	6·0	12	14·12	−2·12	10·92	12·38	− 1·46	10·92	12·38	− 1·46	5·45	Faridpur .	Deltaic Bengal	10
4	1		2	7	4		1	1	S. 36° E.	3·0	2·9	4·9	− 41	88	1·006	7·0	14	14·54	−0·54	15·60	12·50	+ 3·10	15·60	12·50	+ 3·10	4·15	Jessore.		
3		2	5	3	7	7	2	1	S. 5° E.	5·7		6·2	− 8	86	1·006	6·4	13	12·77	+0·23	10·15	10·74	− 0·59	10·15	10·74	− 0·59	1·53	Calcutta.		
		3	2	2	12	9	1	1	S. 10° W.	16·0		14·6	+ 10	85	1·046	6·6	10	12·19	−2·19	14·54	9·84	+ 4·70	14·54	9·84	+ 4·70	5·73	Saugor Island.		
		1	7	6	6	2	7	1	S. 17° E.	5·0				85	·981	6·0	8	12·15	−4·15	4·96	9·33	− 4·37	4·96	9·33	− 4·37	1·14	Krishnagar.		
4	1	3		5	15	1		1	S. 15° E.	3·5	4·5			81	·967	3·8	6	11·35	−5·35	6·00	9·42	− 3·42	6·00	9·42	− 3·42	2·46	Midnapore.		

† Wind variable 8.

: Mean of 26 days.

Table

Abstract of Observations taken at 8 A.M., at 219 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
11	Central Bengal	Bankura	298	29·258		29·504	29·532	4th	28·839	14th	·643	83·5	92·7		79·3		86·0		13·4	101·1	1st & 19th.	69·6	3rd	31·5
		Raniganj	334	29·243		29·522	29·522	3rd	28·854	14th	·668	83·0	93·7		79·4		86·5		14·3	101·7	8th & 11th,	71·9	3rd & 15th.	29·8
		Burdwan	99	29·491	—·008	29·536	29·758	4th	29·172	14th	·586	83·5	92·0	—2·1	79·2	—0·3	85·6	—1·2	12·8	99·4	19th	70·8	3rd	28·6
		Naya Dumka	489	29·096		29·538	29·361	3rd	28·740	14th	·621	83·4	92·0		77·6		84·8		14·4	102·5	1st	69·3	2nd	33·2
		Berhampore	67	29·523	—·013	29·543	29·782	4th	29·237	14th	·545	82·8	91·4	—1·2	78·7	+0·2	85·1	—0·5	12·7	99·2	11th	70·3	3rd	28·9
		Rampur Boalia.	70	29·493?		29·512?	29·745	4th	29·168	15th	·577	83·4	90·7		78·6		84·7		12·1	98·6	11th & 12th,	70·1	3rd	28·5
		Malda	72	29·514		29·537	29·769	5th	29·203	15th	·566	82·8	91·4		78·3		84·9		13·1	100·1	11th & 12th.	72·0	3 days	28·1
		Bogra	61	29·514		29·557	29·776	4th	29·184	15th	·592	81·2	89·0	—0·3	77·4	+0·4	83·2	+0·1	11·6	95·2	2 days	68·2	2 days	27·0
12	North Bengal	Dinajpur	123	29·482	—·018	29·559	29·723	4th	29·147	15th	·576	80·7	88·9	—0·3	76·6	—0·4	82·8	—0·4	12·3	97·3	12th	68·9	1st	28·4
		Rangpur	123	29·498		29·575	29·732	4th	29·146	15th	·586	81·3	88·5		?		?		?	96·2	11th	?	?	?
		Jalpaiguri	284	29·360	—·003	29·601	29·583	4th	29·047	15th	·536	80·1	89·0	+1·5	75·5	+0·7	82·3	+1·1	13·5	97·9	12th	67·1	1st	30·8
		Cooch Behar	156	29·487		29·597	29·710	3rd & 4th.	29·182	15th	·528	80·5	88·2		77·1		82·8		11·1	96·9	12th	69·1	1 t	27·8
17	North Bihar	Purnea	125	29·482	+·011	29·570	29·734	3rd	29·222	14th	·512	81·2	90·1	—2·2	77·2	+0·3	83·7	—1·0	12·9	102·8	12th	69·2	1st	33·6
14	Orissa	Balasore	46	29·541	—·002	29·533	29·797	5th	29·281	14th	·516	84·4	92·3	—0·3	79·6	+1·0	86·0	+0·4	12·7	101·0	19th	67·8	3rd	33·2
		False Point.	21	29·574	—·023	29·536	29·813	4th	29·295	12th	·518	85·5	90·9	+0·1	80·9	+0·7	85·9	+0·4	10·0	103·0	19th	74·1	3rd	28·9
		Cuttack	80	29·509	—·023	29·531	29·755	4th	29·138	12th	·617	85·5	97·6	+1·7	81·5	+1·3	89·6	+1·5	16·1	105·4	5 days	76·2	20th	29·2
		Shortt's Island.	25	29·558		29·525	29·797	4th	29·295	14th	·502	85·8	91·0		81·9		86·5		9·1	99·6	19th	74·7	3rd	24·9
		Puri	20	29·576		29·538	29·823	4th	29·078	12th	·745	85·2	90·5		82·2		86·4		8·3	95·2	10th	76·6	23rd	18·6
	V.—Gangetic Plain and Chota Nagpur.				+·003								97·5	+0·7	80·5	+1·1	89·0	+0·9	17·0					36·1
15	Chota Nagpur.	Hazaribagh.	2,007	27·606	—·004	29·534	27·849	3rd	27·246	14th	·603	81·3	92·9	+0·4	77·0	+1·1	85·0	+0·8	15·9	106·1	1st	68·8	15th	37·3
		Ranchi	2,128	27·496	?	29·538	27·727	3rd	27·149	14th	·578	80·5	92·2	+0·4	75·7	+1·0	84·0	+0·7	16·5	105·2	2nd	69·4	15th	35·8
		Daltonganj.	730?	28·835		29·509	29·149	3rd	28·569	14th	·580	85·4	101·3		80·4		90·9		20·9	111·1	1st & 2nd.	68·0	15th	43·1
		Purulia		28·765		29·519	29·001	4th & 5th.	28·304	14th	·697	83·2	95·2		79·4		87·4		15·8	109·7	2nd	73·3	2nd & 3rd.	36·4
		Chaibassa	760	28·810		29·509	29·063	5th	28·467	14th	·596	84·3	95·6	—1·4	79·7	+0·2	87·7	—0·6	15·9	104·2	2nd & 8th.	73·5	3rd	30·7
16	South Bihar	Gaya	375	29·198	—·003	29·522	29·527	3rd	28·868	14th	·659	86·1	98·3	—1·6	81·2	+1·7	89·8	+0·1	17·1	111·3	1st	70·8	15th	40·5
		Dehri	351	29·212		29·512	29·570	3rd	28·936	14th	·634	86·9	99·3		81·5		90·4		17·8	110·4	1st	71·5	4th	38·9
		Patna	183	29·407	+·003	29·541	29·736	3rd	29·127	14th	·609	84·6	94·5	—2·1	80·4	+0·3	87·5	—0·9	14·1	104·5	2 days	72·2	2 days	32·3
		Arrah	190	29·382		29·522	29·694	3rd	29·128	14th	·466	85·9	96·0		81·3		88·7		14·7	106·0	8th & 12th.	71·5	15th	34·5
		Buxar	239	29·332		29·523	29·680	3rd	29·116	14th	·564	86·3	97·8		81·2		89·5		16·6	107·5	12th	73·1	3rd & 4th.	34·4
17	North Bihar	Bhagalpur	160	29·429		29·540	29·687	3rd	29·096	14th	·591	83·3	91·7		78·9		85·3		12·8	102·3	3 days	68·1	2nd	34·2
		Darbhanga.	166	29·438	—·005	29·556	29·704	3rd	29·172	14th	·532	83·5	92·2	—0·1	79·5	+0·5	85·9	+0·2	12·7	102·3	3 days	73·0	1st	29·3
		Muzaffarpur	178	29·426		29·556	29·727	3rd	29·173	14th	·554	83·7	93·1		78·9		86·1		14·2	102·2	12th	73·7	15th	28·5
		Motihari	224	29·384		29·562	29·663	3rd	29·200	15th	·463	82·2	93·2		77·4		85·3		15·8	103·0	12th	69·8	1st & 17th.	33·2
		Chapra	181	29·401		29·533	29·716	3rd	29·160	14th	·556	85·0	96·0		80·5		88·3		15·5	105·8	12th	71·6	15th	34·2
18	N.-W. Provinces, East.	Benares	267	29·295	—·001	29·513	29·595	3rd	29·126	15th	·469	86·8	101·2	+0·2	82·2	—0·1	91·7	+0·1	19·0	110·3	1st	69·6	3rd	40·7
		Allahabad	309	29·247	—·008	29·503	29·524	3rd	29·074	15th	·450	90·8	105·0	+2·6	85·0	+2·1	95·0	+2·4	20·0	112·6	18th	73·3	3rd	39·3
23	N.-W. Provinces, (East Sub-montane.)	Gorakhpur	256	29·343	+·029	29·555	29·633	3rd	29·167	14th	·466	84·5	97·2	—0·5	79·7	—0·1	88·5	—0·3	17·5	105·7	12th	70·7	3rd	35·0
13	South Oudh	Lucknow	368	29·206	+·013	29·526	29·471	4th	29·006	15th	·465	87·7	102·6	?	82·9	+1·4	92·8	?	19·7	112·3	1st	73·3	3rd & 4th.	39·0
20	North Oudh	Bahraich	403	29·183	+·005	29·541	29·441	4th	28·990	15th	·451	85·8	100·3	+3·1	80·6	+1·5	90·5	+2·3	19·7	107·1	12th	72·0	3rd & 25th.	35·1
21	N.-W. Provinces, (Central).	Cawnpore	416	29·149	+·005	29·510	29·411	4th	28·960	15th	·451	89·5	103·4	+2·7	83·5	+1·9	93·5	+2·3	19·9	111·5	1st	72·0	3rd	39·5
		Mainpuri	516	29·042	+·001	29·504	29·307	4th	28·840	15th	·467	89·8	106·3	+5·1	84·0	+2·5	95·2	+3·8	22·3	113·2	1st	71·0	4th	42·2

—continued.

n India, Burma, etc., in June 1900—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 velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st June 1900.	Normal rainfall for period 1st to 31st June.	Variation from normal of period, 1st to 31st June.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
12	2		5	5	2	1	3		S. 51° E.	4·3	4·9			80	·908	5·0*	9	12·08	− 3·08	5·67	9·96	− 4·29	5·67	9·96	− 4·29	1·93	Bankura	Central Bengal	11
15	2	1	3	2	1	2	1	3	N. 45° E.	2·4				83	·939	5·1	6	11·65	− 5·65	4·47	9·27	− 4·80	4·47	9·27	− 4·80	1·98	Raniganj		
7	2	3	2	1	4	5	6		S. 51° W.	4·1	4·1	4·9	−16	85	·979	7·3†	12	12·38	− 0·38	8·04	8·92	− 0·88	8·04	8·92	− 0·88	1·67	Burdwan		
3	1	2	8	8	3		1	4	S. 75° E.	4·2	4·6			78	·889	6·3	7	12·13	− 5·13	7·46	9·22	− 1·76	7·46	9·22	− 1·76	2·97	Naya Dumka		
15	1		6		4	3	1		S. 31° E.	3·8	3·6	5·5	−35	86	·959	6·8	11	11·88	− 0·88	6·86	9·38	− 2·52	6·86	9·38	− 2·52	1·95	Berhampur.		
9	1	2	4	5	5	1	3		S. 36° E.	4·3	4·3			83	·949	7·2	13	12·15	+ 0·85	9·65	9·91	− 0·26	9·65	9·91	− 0·26	1·91	Rampur Boalia.		
	4	2	4	8	8	2	1	1	S. 42° E.	3·5	3·2			83	·928	5·7	13	11·96	+ 1·04	12·70	10·34	+ 2·36	12·70	10·34	+ 2·36	3·18	Malda		
														89	·950	5·9	15	14·23	+ 0·77	20·71	13·56	+ 7·15	20·71	13·56	+ 7·15	3·40	Bogra		
	1	7	17	4	1				N. 85° E.	6·1	7·0			88	·919	7·3	14	14·08	− 0·08	25·35	15·49	+ 9·86	25·35	15·49	+ 9·86	8·97	Dinajpur	North Bengal	12
	1	10	11	2	5			1	N. 84° E.	7·8	8·3			90	·963	6·1	15	15·38	− 0·38	25·00	18·62	+ 6·38	25·00	18·62	+ 6·38	4·67	Rangpur		
2	2	9	9	7	1				N. 84° E.	2·0	2·6			88	·903	3·2	16	19·00	− 3·00	21·93	26·42	− 4·49	21·93	26·42	− 4·49	3·12	Jalpaigurl		
9	1	5	11	3	1				N. 87° E.	2·8	2·9			90	·934	7·1	14			19·81	35·67	−15·86	19·81	35·67	−15·86	3·70	Cooch Behar		
4	11	10	3	1				1	N. 29° E.	4·1	6·3	3·3	+91	94	·985	7·2	13	11·48	+ 1·52	23·25	10·71	+12·54	23·25	10·71	+12·54	5·44	Purnea	North Bihar	17
5	2	2	1	1	6	11	2		S. 33° W.	6·2				85	1·007	5·7	7	10·81	− 3·81	9·36	9·07	+ 0·29	9·36	9·07	+ 0·29	2·91	Balasore	Orissa.	14
1	1	1	3	3	6	10	5		S. 23° W.	13·1	12·5	11·5	+ 9	83	1·013	8·0	7	9·32	− 2·32	5·80	9·37	− 3·57	5·80	9·37	− 3·57	1·99	False Point.		
6		3	1		4	10	5	1	S. 51° W.	4·2		4·0	+ 5	77	·942	6·8	7	11·54	− 4·54	3·96	11·53	− 7·57	3·96	11·53	− 7·57	1·67	Cuttack.		
	2		1	2	12	9	2	1	S. 22° W.	17·0	20·7			82	1·015	6·3	7			10·67	10·54	+ 0·13	10·67	10·54	+ 0·13	3·45	Shortt's Island.		
7	2					17	2	2	S. 59° W.	13·5	13·4			84	1·019	4·7		8·04	− 1·04	7·23	8·06	− 0·83	7·23	8·06	− 0·83	3·20	Puri.		
																				6·07	6·58	−0·47					V.—Gangetic Plain and Chota Nagpur.		
1	1	1	3	4	12	2	2	4	S. 2° E.	9·7	8·6	8·9	− 3	69	·741	8·0	6	10·92	− 4·92	8·45	7·63	+ 0·82	8·45	7·63	+ 0·82	3·09	Hazaribagh.	Chota Nagpur.	
	1	1	4	3	6	7	4	4	S. 29° W.	6·6	7·9			73	·764	4·7‖	11	12·50	− 1·50	9·64	8·48	+ 1·16	9·64	8·48	+ 1·16	4·30	Ranchi.		
18	1	2		3		4	1	1	S. 27° W.	4·9	5·8			67	·811	2·3	9	8·27	+ 0·73	5·33	6·03	− 0·70	5·33	6·03	− 0·70	2·50	Daltonganj.		
22	1	1	2	1	1		1	1	N. 63° E.	2·0				78	·892	4·6	8			5·27			5·27			1·27	Purulia.		
12		2	1	1	1	4	6		S. 83° W.	3·1	2·7			74	·864	4·6	8	11·46	− 3·46	5·03	8·53	− 3·50	5·03	8·53	− 3·50	1·32	Chaibassa.		
1	1	9	3	10	3	1		2	S. 82° E.	7·6	6·8	3·4	+100	74	·919	5·5	7	8·04	− 1·04	7·54	6·56	+ 0·98	7·54	6·56	+0·98	3·35	Gaya	South Bihar.	16
1	2	1	12	6	4	2	1	1	S. 67° E.	5·5	6·3			66	·828	6·3	5	7·92	− 2·92	4·27	5·91	− 1·64	4·27	5·91	− 1·64	2·70	Dehri.		
	1	9	14	6					N. 83° E.	6·8	8·1	4·2	+ 93	78	·926	6·1	2	7·85	− 5·85	7·90	7·34	+ 0·56	7·90	7·34	+0·56	4·13	Patna.		
1		3	17	6	2	1			S. 78° E.	4·0	4·1			76	·925	5·5	3	8·15	− 5·15	4·25	6·14	− 1·89	4·25	6·14	− 1·89	2·68	Arrah.		
1	1	2	18	7		1			S. 83° E.	5·1	4·7			70	·860	5·1	4	7·88	− 3·88	4·06	5·20	− 1·14	4·06	5·20	− 1·14	1·53	Buxar.		
4	3	8	10	3		1	1		N. 69° E.	6·0	5·6			81	·912	4·5	10	9·69	+ 0·31	18·76	7·54	+11·22	18·76	7·54	+11·22	6·23	Bhagalpur	North Bihar.	17
1		4	15	10					S. 81° E.	5·9		3·3	+79	79	·908	4·4	5	8·64	− 3·64	12·21	7·56	+ 4·65	12·21	7·56	+ 4·65	5·07	Darbhanga.		
13		7	7	3					S. 78° E.	2·1	2·7			86	1·002	2·8	8	8·00	0	10·97	7·65	+ 3·32	10·97	7·65	+ 3·32	4·10	Muzaffarpur		
	1	8	17					4	N. 63° E.	5·6				84	·918	2·5	9	9·57	− 0·57	9·31	9·18	+ 0·13	9·31	9·18	+ 0·13	2·55	Motihari.		
3	2	2	17	3	2		1		S. 87° E.	2·9	3·6			79	·945	7·2	5	7·42	− 2·42	8·37	6·28	+ 2·09	8·37	6·28	+ 2·09	3·19	Chapra.		
8		1	13	4		2		2	S. 82° E.	2·4	2·7	5·1	−47	68	·834	5·4	5	4·64	+ 0·36	2·73	5·13	− 2·40	2·73	5·13	− 2·40	0·99	Benares	N.-W. Provinces East.	18
2		8	10	3		1	4	2	N. 74° E.	7·6	8·7	6·9	+26	57	·808	2·9	1	4·73	− 3·73	0·24	5·69	− 5·45	0·24	5·69	− 5·45	0·11	Allahabad.		
3	4	11	7	3	1			1	N. 60° E.	2·2		3·6	−39	76	·893	5·5	6	7·00	− 1·00	2·24	9·68	− 7·44	2·24	9·68	− 7·44	1·06	Gorakhpur	N.-W. Provinces (East Sub-Mountane).	23
	2	1	19	3		1	2	1	N. 88° E.	3·3	3·6	4·2	−14	62	·816	3·8	5	5·64	− 0·64	2·44	5·43	− 2·99	2·44	5·43	− 2·99	1·75	Lucknow	South Oudh.	19
		1	20	3	3		1	2	S. 81° E.	4·4	4·1			69	·846	4·8	5			1·46	5·64	− 4·18	1·46	5·64	− 4·18	0·41	Bahraich	North Oudh.	20
6	2	5	7	3		4	2	1	N. 80° E.	2·2				59	·787	2·2	5	4·30	+ 0·70	1·85	3·54	− 1·69	1·85	3·54	− 1·69	0·64	Cawnpore	N.-W. Provinces (Central).	21
9			11	2	3		5		S. 60° E.	3·2	3·2			52	·721	6·1	3			1·29	3·00	− 1·71	1·29	3·00	− 1·71	0·56	Mainpuri		

* Mean of 28 days. † Mean of 29 days. ‖ Mean of 24 days.

Table

Abstract of Observations taken at 8 A.M. at 219 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	VI.—Upper Sub-Himalayas.				+·001								105·1	+2·7	82·6	+3·1	93·9	+2·9	22·5					42·3
24	N.-W. Provinces, (West Sub-montane.)	Bareilly	569	29·000	+·012	29·522	29·283	4th	28·811	15th	·472	86·9	101·7	+1·0	81·7	+1·8	91·7	+1·4	20·0	110·5	1st	68·2	14th	42·3
		Dehra Dun	2,233	27·397	−·005	29·537	27·665	4th	27·195	14th	·470	81·7	95·5	+2·1	76·1	+1·5	85·8	+1·8	19·4	104·5	1st	63·0	14th	41·5
		Roorkee	887	28·683	+·009	29·518	28·957	4th	28·493	14th	·464	87·0	102·2	+0·8	80·0	+1·1	91·2	+1·0	22·2	112·7	1st	61·3	14th	51·4
22	N.-W. P. West.	Meerut	738	28·814	−·002	29·502	29·102	4th	28·629	15th	·473	88·7	104·8	+3·4	82·3	+1·5	93·6	+2·5	22·5	110·8	1st	74·3	23rd	36·5
23	South-East Punjab.	Delhi	718	28·841	+·007	29·506	29·097	4th	28·651	15th	·446	89·9	104·0	?	85·7	+2·3	94·9	?	18·3	111·2	1st	73·1	3rd	38·1
28	Central Punjab.	Lahore	702	28·822	+·002	29·474	29·086	5th	28·682	14th	·424	92·3	109·8	+4·2	83·8	+4·0	96·8	+4·1	26·0	118·6	21st	75·9	18th	42·7
27	South Punjab	Sirsa	662	28·846	?	29·481	29·082	5th	28·630	15th	·452	94·6	108·6	+2·1	87·3	+4·4	98·0	+3·3	21·3	117·3	13th & 14th.	72·1	3rd	45·2
		Patiala	818	28·736		29·502	29·011	5th	28·553	14th	·458	89·9	105·5		83·4		94·5		22·1	112·0	13th	69·4	27th	42·6
29	Punjab Sub-montane.	Ludhiana	812	28·710	−·019	29·470	28·995	5th	28·540	15th	·455	90·4	107·5	+1·7	85·1	+5·0	96·3	+3·3	22·4	114·4	13th & 22nd.	71·1	24th	43·3
		Sialkot	830	28·699	+·001	29·474	28·996	5th	28·543	15th	·453	93·8	109·4	+3·8	85·7	+5·6	97·6	+4·7	23·7	117·5	21st & 22nd	77·6	14th	39·9
		Umballa	892	28·665	0	29·501	28·952	5th	28·462	14th	·490	87·6	105·6	+3·9	83·1	+3·1	94·4	+3·5	22·5	112·4	1st	74·0	3rd	38·4
31	North Punjab	Rawalpindi	1,676	27·894	+·007	29·493	28·154	5th	27·753	15th	·401	90·7	106·9	+4·2	77·3	+2·6	92·1	+3·4	29·6	116·5	21st	71·1	3 days	45·4
	VII.—Indus Valley and North-West Rajputana.				+·002								108·5	+3·4	84·1	+2·7	96·3	+3·1	24·3					41·7
31	North Punjab	Peshawar	1,110	28·462	+·019	29·528	28·693	5th	28·310	15th	·383	89·7	106·9	+1·4	76·7	+0·1	91·8	+0·8	30·2	115·5	22nd	67·9	17th	47·6
32	West Punjab	Khushab	612	28·907	+·008	29·473	29·168	5th	28·753	15th	·415	92·4	108·8	+1·5	83·5	+1·6	96·2	+1·6	25·3	118·4	22nd	69·8	9th	48·6
		Montgomery	558	28·943?	−·001	29·448?	29·181	5th	28·765	13th	·416	96·7	111·4	+1·8						119·0	28th			
		D. I. Khan	594	28·938	−·006	29·464	29·164	5th	28·776	15th	·388	91·4	109·0	+2·1	82·9	+2·1	96·0	+2·1	26·1	117·2	3 days	74·1	2nd	43·1
		Mooltan	420	29·077	−·008	29·454	29·312	3rd	28·931	13th	·381	92·7	110·7	+4·0	88·7	+6·4	99·7	+5·2	22·0	117·4	13th	82·6	2nd	34·8
47	Sind	Jacobabad	186	29·313	−·005	29·454	29·510	3rd	29·135	15th	·375	94·8	118·0	+6·1	86·0	+2·5	102·0	+4·3	32·0	124·5	14th	81·1	1st	43·4
		Hyderabad	96	29·452	+·009	29·499	29·648	3rd	29·289	14th	·359	88·8	108·7	+5·5	82·5	+1·0	95·6	+3·3	26·2	122·2	14th	79·5	3rd	42·7
		Kurrachee	30	29·569	+·001	29·549	29·809	3rd	29·379	15th	·430	87·8	96·9	+2·2	83·7	+1·4	90·3	+1·8	13·2	112·4	11th	81·2	3 days	31·2
51	West Rajputana	Bikaner	771	28·776	?	29·492	28·931	3rd	28·564	14th	·367	93·9	110·5	+4·5	89·2	+6·7	99·9	+5·6	21·3	118·3	14th	79·0	8th	39·3
		Pachpadra	380	29·220		29·548	29·406	3rd	29·017	14th	·389	89·7	108·4		83·8		96·1		24·6	121·3	14th	78·9	14th	42·4
		Jodhpur	782	28·790		29·539	28·990	3rd	28·593	14th	·397	87·9	106·6		84·1		95·4		22·5	118·8	14th	75·3	5th & 7th.	43·5
	VIII.—East Rajputana, Central India and Gujarat.				+·007								103·6	+4·6	83·4	+3·1	93·5	+3·8	20·2					33·7
50	East Rajputana	Jaipur	1,431	28·185	+·003	29·541	28·372	3rd	27·953	14th	·419	90·5	107·2	+4·4	85·2	+5·1	96·2	+4·8	22·0	113·2	14th	78·1	3rd	35·1
		Kotah	819	28·766			28·944	3rd	28·539	14th	·405	94·1	110·1		89·6		99·9		20·5	114·1	14th	80·1	9th	34·0
		Sambhar	1,254	28·348	+·009	29·533	28·531	3rd	28·124	14th	·407	91·0	107·4	+5·7	86·4	+4·8	96·9	+5·3	21·0	115·0	14th	74·4	9th	40·6
		Ajmer	1,611	28·010	−·008	29·545	28·187	3rd	27·813	14th	·374	89·2	105·9	+5·6	85·3	+5·3	95·6	+5·5	20·6	114·4	14th	82·0	3rd & 26th.	32·4
		Udaipur	1,925	27·755		29·594	27·958	3rd	27·578	14th	·380	86·8	102·2		81·5		91·9		20·7	112·1	13th	77·3	7th	34·3
		Deesa	466	29·192	+·015	29·607	29·375	3rd	29·018	13th	·357	85·5	106·3	+4·7	82·4	+1·9	94·4	+3·3	23·9	118·1	13th	78·0	1st & 2nd.	40·1
46	Kathiawar and Cutch.	Bhuj	395	29·246	+·010	29·588	29·473	3rd	29·063	14th	·410	87·1	99·3	+2·1	80·5	+0·7	89·9	+1·4	18·8	108·3	11th & 15th.	78·9	4 days	29·4
		Jamnagar	61	29·602		29·609	29·814	3rd	29·431	14th	·383	87·9	99·1		80·9		90·0		18·2	105·7	6th	76·7	2nd	29·0
		Rajkot	429	29·247	+·014	29·622	29·450	3rd	29·085	14th	·365	86·5	104·4	+4·5	79·3	+2·0	91·9	+3·3	25·1	110·9	13th	70·8	16th	40·1
		Veraval		29·687	+·028	29·647	29·893	3rd	29·556	14th	·337	83·9	87·2	+0·8	81·9	+1·0	84·6	+0·9	5·3	88·6	4th & 12th.	77·3	4th	11·3
		Bhavnagar Para	35	29·658	+·003	29·637	29·860	3rd	29·508	13th	·352	88·2	105·8	+7·6	80·6*	0 *	92·8*	+3·3	25·2	111·7	13th	72·3	3rd	39·4
49	Central India	Nowgong	757	28·824	−·009	29·515	29·052	4th	28·639	14th	·413	93·0	107·1	+4·6	87·3	+4·6	97·2	+4·6	19·8	111·0	3 days	80·4	27th	30·6
		Indôre	1,823	27·872	+·021	29·615	28·059	3rd	27·703	14th	·356	84·1	101·5	+7·3	78·4	+3·5	90·0	+5·4	23·1	108·8	5th	70·6	19th	38·2
		Neemuch	1,630	28·036	+·001	29·592	28·210	3rd	27·845	14th	·365	86·3	103·9	+5·5	80·4	+3·2	92·2	+4·4	23·5	109·6	5th	65·0	9th	44·6
45	Gujarat	Surat	39	29·680	+·012	29·662	29·876	3rd	29·549	13th	·327	87·1	95·9	+2·2	82·1	+2·9	89·0	+2·6	13·8	99·2	4th	78·1	29th	21·1
		Ahmedabad	164	29·544?	?	29·652?	29·737	3rd	29·378	13th	·359	89·1	107·0	+7·4	83·7	+3·2	95·4	+5·3	23·3	113·3	13th	80·6	3 days	32·7

* Mean of 19 days.

-continued.

India, Burma, etc., in June 1900—continued.

Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 30th June 1900.	Normal rainfall for period, 1st to 30th June.	Variation from normal of period, 1st to 30th June.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																			1·43	3·65	−2·25					VI.—Upper Sub-Himalayas.		
1	2	11	4	1			3	N. 87° E.	3·2	3·0	4·9	−39	62	·763	1·4	6	4·91	+1·09	3·17	5·67	−2·50	3·17	5·67	−2·50	1·85	Bareilly	N.-W. Provinces, (West Sub-montane).	24
1		2	4	2	4	3	2	S. 37° W.	1·9		1·6	+19	57	·619	2·9	6	8·91	−2·91	4·14	9·25	−5·11	4·14	9·25	−5·11	1·41	Dehra Dun.		
			12	3				S. 36° E.	4·1		3·9	+ 5	54	·671	2·7	4	5·64	−1·64	2·86	4·71	−1·85	2·86	4·71	−1·85	1·32	Roorkee.		
		3	6		1	2		S. 43° E.	1·7	1·7	2·6	−35	53	·713	7·4	2	3·64	−1·64	1·06	2·44	−1·38	1·06	2·44	−1·38	0·72	Meerut	N.-W. Provinces, West.	22
6		5	7	3		6	3	N. 84° E.	4·6	4·3	4·9	−12	46	·637	2·0	4	4·00	0	1·36	3·35	−1·99	1·36	3·35	−1·99	0·76	Delhi	South-East Punjab.	26
1	1	1	8	2	2	3		S. 22° E.	2·7		3·5	−23	37	·567	0	1	2·73	−1·73	0·22	1·84	−1·62	0·22	1·84	−1·62	0·22	Lahore	Central Punjab	28
1	4	2	11	1	9	1	1	S. 23° E.	8·6	10·1	5·2	+94	48	·770	1·6	2	3·18	−1·18	0·61	1·91	−1·30	0·61	1·91	−1·30	0·34	Sirsa	South Punjab.	27
1		2	10	4				S. 42° E.	3·8†				56	·784	0·8	2			1·70			1·70			1·00	Patiala.		
3			6	16				S. 13° E.	3·5	3·1	2·4	+29	43	·615	1·5	3	3·64	−0·64	1·49	2·41	−0·92	1·49	2·41	−0·92	1·02	Ludhiana	Punjab (Sub-montane).	29
1	5	14	7	1				S. 87° E.	5·0		2·4	+108	45	·713	0·1	1	3·73	−2·73	0·21	3·08	−2·87	0·21	3·08	−2·87	0·15	Sialkot.		
		5	21		1		1	S. 50° W.	3·5				56	·730	0·3	1			0·36	3·83	−3·47	0·36	3·83	−3·47	0·26	Umballa.		
	1			1				Calm.	2·2	2·0	2·6	−23	32	·451	1·3	0	3·55	−3·55	0	1·71	−1·71	0	1·71	−1·71	0	Rawalpindi	North Punjab.	31
																			0·23	0·76	−0·53					VII.—Indus Valley and North-West Rajputana.		
8	2			1		2	1	N. 6° W.	2·5	2·7	4·3	−37	40	·565	2·3	0	0·73	−0·70	0·07	0·35	−0·28	0·07	0·35	−0·28	0·07	Peshawar	North Punjab.	31
3	9	7	2	1	2		2	N. 60° E.	8·3	9·6			40	·600	1·1	2	1·20	+0·80	0·76	0·70	+0·06	0·76	0·70	+0·06	0·40	Khushab	West Punjab.	32
4	2	4	3	6	8	2		S. 1° W.	9·9	8·5			28	·482	0	0	2·00	−2·00	0	1·24	−1·24	0	1·24	−1·24	0	Montgomery		
3	8		2			1		N. 41° E.	2·7	2·9	2·4	+21	57	·840	0·3	0	0·91	−0·91	0·04	0·54	−0·50	0·04	0·54	−0·50	0·04	D. I. Khan		
1	1		3	5	10		2	S. 28° W.	3·0	3·7	3·8	− 3	49	·722	0	1	1·45	−0·45	0·13	0·57	−0·46	0·13	0·59	−0·46	0·13	Mooltan.		
	2	2	13	3			2	S. 50° E.	4·0	4·2	4·7	−11	49	·765	0	0	0·09	−0·09	0	0·12	−0·12	0	0·12	−0·12	0	Jacobabad.	Sind.	47
				3	27			S. 40° W.	15·0	15·6	15·2	+ 3	62	·833	1·4	0	0·45	−0·45	0	0·33	−0·33	0	0·33	−0·33	0	Hyderabad.		
			1	3	7	17	2	S. 60° W.	13·4	16·8	18·5	− 9	75	·978	3·4	0	0·18	−0·18	0	0·52	−0·52	0	0·52	−0·52	0	Kurrachee.		
1		1	3	9	11	2	1	S. 23° W.	13·3		7·8	+71	47	·716	0·1	1			0·20	1·66	−1·46	0·20	1·66	−1·46	0·20	Bikaner	West Rajputana	51
				9	17	1	2	S. 35° W.	16·2	18·6	12·0	+55	57	·789	3·1	0			0	0·69	−0·69	0	0·69	−0·69	0	Pachpadra.		
				2	19	8	1	S. 57° W.	9·0	8·1			63	·814	0·9	2			1·33	1·59	−0·26	1·33	1·59	−0·26	1·03	Jodhpur.		
																			0·40	4·49	−4·04					VIII.—East Rajputana, Central India and Gujarat.		
3	1	3	1		8	12	1	S. 81° W.	6·5		7·3	−11	47	·656	0·2	3	3·70	−0·70	0·73	2·49	−1·76	0·73	2·49	−1·76	0·32	Jaipur	East Rajputana	50
4		1	1		9	11	3	S. 87° W.	8·4	9·9			42	·660	0·5	2			0·60	3·57	−2·97	0·60	3·57	−2·97	0·43	Kotah.		
1	1	2	2	1	1	14	5	N. 82° W.	11·4		11·2	+ 2	48	·690	0·9	2	3·10	−1·10	0·33	1·40	−1·07	0·33	1·40	−1·07	0·20	Sambhar.		
2	2			1	6	18		S. 85° W.	11·5		8·3	+39	58	·788	0·5	0	3·73	−3·73	0	2·28	−2·28	0	2·28	−2·28	0	Ajmer.		
		1	1	1	13	7	1	S. 56° W.	4·2‖	4·2			55	·685	0·6	0			0·06			0·06			0·04	Udaipur.		
1				1	22	6		S. 54° W.	19·0		16·8	+13	64	·788	4·9	0	2·18	−2·18	0	2·16	−2·16	0	2·16	−2·16	0	Deesa.		
				6	12	10	2	S. 57° W.	22·8		16·1	+41	77	1·094	4·5	0			0	1·94	−1·94	0	1·94	−1·94	0	Bhuj	Kathiawar and Cutch.	46
			1	10	17	2		S. 31° W.	25·2	27·0			67	·869	3·6	0			0			0			0	Jamnagar.		
				2	10	6		S. 55° W.	18·4†	18·2	15·6	+17	90	1·141	3·5	0	5·27	−5·27	0	4·73	−4·73	0	4·73	−4·73	0	Rajkot.		
				2	10	17	1	S. 71° W.	9·5	11·2	10·6	+ 6	86	1·001	4·1	1			0·15	6·33	−6·18	0·15	6·33	−6·18	0·15	Veraval.		
			3	12	15			S. 19° W.	14·7‖	15·1			61	·806	4·6	0			0	5·15	−5·15	0	5·15	−5·15	0	Bhavnagar Para.		
2	1	7	1	1		16	1	N. 71° W.	4·6	4·6	4·4	+ 5	45	·689	6·7	2	5·91	−3·91	0·73	5·83	−5·10	0·73	5·83	−5·10	0·35	Nowgong	Central India.	49
2					4	21	3	N. 87° W.	9·6		7·0	+37	68	·794	6·5	5	8·27	−3·27	1·62	6·79	−5·17	1·62	6·79	−5·17	0·72	Indore.		
			1		15	14		S. 64° W.	17·1‖	15·4	14·2	+ 8	68	·864	1·1	1	5·09	−4·09	1·37	4·27	−2·90	1·37	4·27	−2·90	1·33	Neemuch.		
				3	21	3	2	S. 50° W.	9·0	14·8	15·6	− 5	73	·942	6·3	1	8·18	−7·18	0·10	10·12	−10·02	0·10	10·12	−10·02	0·10	Surat	Gujarat.	45
				7	18	2	3	S. 44° W.	6·3				62	·841	4·5	0			0	7·32	−7·32	0	7·32	−7·32	0	Ahmedabad.		

‖ Mean of 29 days. † Mean of 18 days. ‡ Mean of 28 days.

Table

Abstract of Observations taken at 8 A.M. at 219 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
22	N.-W. P., West	Agra	555	29·005	−·003	29·506	29·249	3rd	28·796	14th	·453	91·9	106·0	+1·2	87·1	+2·3	96·6	+1·8	18·9	111·5	30th	73·4	3rd	38·1
21	N.-W.P., Central	Jhansi	858	28·736	−·002	29·525	28·956	3rd & 4th.	28·523	14th	·433	93·6	108·4	+5·2	89·2	+5·3	98·8	+5·3	19·2	112·9	30th	78·1	3rd	34·8
	IX.—Deccan				+·004								99·9	+5·6	77·9	+2·4	89·0	+4·0	22·0					38·1
38	Bombay, Deccan	Belgaum	2,589	27·269	+·017	29·730	27·378	3rd	27·148	11th	·230	73·7	84·2	+3·5	68·7	+0·9	76·5	+2·2	15·5	99·3	4th	64·8	19th	34·5
		Sholapur	1,590	28·169	+·002	29·696	28·272	3rd	28·070	12th	·202	80·6	97·5	+3·2	75·3	+2·7	86·5	+3·0	22·2	109·2	4th	71·0	21st & 22nd.	38·2
		Poona	1,840	27·930	+·018	29·699	28·081	3rd	27·816	11th	·265	80·3	94·5	+6·0	73·8	+1·2	84·2	+3·6	20·7	104·0	4th	69·4	9th & 10th.	34·6
		Bijapur	1,946	27·827*	+·013*	29·701*	27·941	3rd	27·734	13th	·207	78·1	94·6*	+4·1*	72·2*	+ *	83·4*	+2·1	22·4	107·7	5th	64·7	18th	43·0
40	Khandesh	Malegaon	1,430	28·290	+·009	29·655	28·443	3rd	28·080	14th	·363	84·1	101·0	+6·5	76·7	+2·0	88·9	+4·3	24·3	110·8	6th	73·1	9th & 11th.	37·7
		Ahmednagar	2,152	27·631	?	29·701	27·776	3rd	27·519	11th	·257	80·0	95·9	+5·5	72·9	+0·7	84·4	+3·1	23·0	105·9	5th & 6th.	66·4	2nd	39·5
41	Berar	Akola	930	28·758	+·009	29·625	28·913	3rd	28·595	13th	·318	85·7	104·1	+6·6	78·9	+1·6	91·5	+4·1	25·2	112·6	6th	72·7	7th	39·9
		Amraoti	1,215	28·463	+·010	29·612	28·637	3rd	28·257	13th	·380	83·7†	103·2	+6·5	78·8	+2·6	91·0	+4·6	24·4	110·9	6th	73·3	27th	37·6
42	Central Provinces, West.	Khandwa	1,044	28·630	+·004	29·617	28·812	3rd	28·462	13th	·350	86·0	103·7	+6·4	81·4	+3·3	92·6	+4·9	22·3	110·7	6th	74·1	26th	36·6
		Hoshangabad	1,006	28·637	+·002	29·581	28·830	3rd & 4th.	28·460	14th	·370	88·9	106·2	+5·2	81·4	+2·4	93·8	+5·3	24·8	112·0	6th	75·2	29th	36·8
		Nagpur	1,025	28·624	+·004	29·588	28·793	4th	28·442	13th	·351	86·9	105·6	+7·8	81·6	+3·5	93·6	+5·7	24·0	112·7	4th	73·6	24th	39·1
43	Central Provinces, Central.	Chanda	634	29·044	−·005	29·612	29·189	4th	28·880	13th	·309	87·8	104·5	+6·8	81·7	+2·4	93·1	+4·6	22·8	114·7	1st	71·8	5th	42·9
		Seoni	2,033	27·636	+·008	29·568	27·819	4th	27·449	13th	·370	85·3	101·9	+8·3	78·2	+2·9	90·1	+5·6	23·7	106·3	3 days	71·0	23rd & 24th.	35·9
		Jubbulpore	1,327	28·284	−·010	29·537	28·497	4th	28·107	13th	·390	88·5	104·8	+8·1	82·8	+4·6	93·8	+6·4	22·0	109·0	3 days	73·6	26th	35·4
		Saugor	1,807	27·839	+·007	29·554	28·025	4th	27·658	14th	·367	88·1	104·0	+5·5	82·1	+5·0	93·1	+5·3	21·9	109·0	9th	72·6	26th	36·4
49	Central India	Sutna	1,040	28·537	0	29·509	28·774	4th	28·371	15th	·403	92·6	106·0	+7·2	86·5	+5·5	96·3	+6·4	19·5	110·1	9th & 22nd.	77·1	27th	33·0
44	Central Provinces, East.	Raipur	970	28·654	+·002	29·557	28·862	4th	28·419	13th	·443	87·0	101·4	+4·7	80·7	+2·6	91·1	+3·7	20·7	112·0	1st	70·1	24th	41·9
		Sambalpur	486	29·113	−·016	29·541	29·340	5th	28·759	13th	·581	86·6	98·8	+1·5	81·6	+0·7	90·2	+1·1	17·2	111·1	3rd	74·2	24th	36·9
39	Hyderabad (North).	Indur										84·1	100·6		77·5		89·1		23·1	111·4	1st	70·2	18th	41·2
		Bidar	2,165	27·664		29·739	27·781	1st	27·578	21st	·203	82·3	96·6		72·4		84·5		24·2	103·3	9th	67·7	18 h	35·6
53	Hyderabad (South).	Gulbarga	1,502	28·262		29·703	28·361	5th	28·134	13th	·227	80·8	97·3		75·1		86·2		22·2	109·4	1st	65·3	19th	44·1
		Raichur	1,309	28·457	+·019	29·703	28·552	5th	28·352	10th	·200	81·8	97·7	+3·3	76·2	+1·1	87·0	+2·2	21·5	108·0	1st & 5th.	71·2	17th	36·6
		Hyderabad (Deccan).	1,690	28·041	−·001	29·661	28·154	4th	27·898	13th	·256	81·0	96·0	+2·7	76·9	+2·9	86·5	+2·8	19·1	108·9	1st & 4th.	72·2	26th	36·7
		Secunderabad	1,787	27·952	−·017	29·668	28·061	4th	27·809	13th	·252	80·4	98·1	+4·8	76·2	+2·2	87·1	+3·5	21·9	110·8	1st	71·5	13th	39·3
		Hanumkonda		28·829		29·631	28·975	5th	28·688	13th	·287	83·8	99·6		79·1		89·4		20·5	111·7	4th	72·8	26th	38·8
	X.—West Coast				+·013								86·4	+1·2	77·3	+1·0	81·8	+1·1	9·1					20·5
37	Konkan	Bombay	37	29·733	+·021	29·709	29·905	3rd	29·597	11th	·308	84·3	90·5	+3·2	81·9	+2·6	86·2	+2·9	8·6	93·5	9th & 20th.	75·0	3 days	18·5
		Ratnagiri	110	29·675	+·014	29·723	29·802	3rd	29·503	11th	·299	82·3	88·2	+2·0	78·2	+1·5	83·3	+1·8	10·0	93·9	3rd	71·9	26th	22·6
		Mormugao	60	29·740	+·002	29·735	29·856	4th	29·571	11th	·265	80·7	85·7	−1·4	77·5	−0·7	81·6	−1·1	8·2	92·0	4th & 12th.	71·4	19th	20·6
		Goa	199	29·607	+·019	29·742	29·720	4th	29·449	12th	·271	80·7	84·5	−0·8	77·3	−0·4	80·9	−0·6	7·2	91·0	8th & 9th.	68·0	19th	22·0
		Karwar	44	29·787	+·017	29·763	29·893	4th	29·624	11th	·269	79·6	85·3	+0·4	76·4	+0·7	80·9	+0·6	8·9	91·8	8th	69·5	18th	22·3
38	Malabar	Cochin	11	29·891	+·014	29·829	29·951	26th	29·768	11th	·183	80·0	86·7	+2·2	75·6	+1·2	81·2	+1·7	11·1	93·5	6th	71·2	25th	22·3
		Calicut	27	29·851	+·008	29·807	29·941	4th	29·721	11th	·220	80·2	86·3	+2·4	76·2	+1·9	81·3	+2·2	10·1	92·3	4th & 6th.	72·0	26th	20·3
		Mangalore	65	29·799	+·012	29·796	29·890	4th	29·625	11th	·265	79·4	86·2	+1·8	76·0	+1·2	81·1	+1·5	10·2	92·3	9th	72·4	3 days	19·5
		Trivandrum	198	29·686	?	29·816	29·756	25th	29·577	10th	·179	78·7	83·8	+0·8	76·3	?	80·1	?	7·5	88·0	1st	72·5	20th & 25th.	15·5
	XI.—South India				0								95·4	+1·9	77·6	+1·1	86·5	+1·6	17·7					31·1
57	Madras (South).	Pamban	37	29·801		29·765	29·889	26th	29·675	10th	·214	83·9	89·7		80·8		85·3		8·9	92·8	7th	74·7	25th	16·1
		Tinnevelly	168	29·673	+·022	29·770	29·767	26th	29·557	10th	·210	86·5	97·2	0	80·1	+0·4	88·7	+0·2	17·1	105·5	4th	73·9	25th	31·6
		Madura	447	29·365	+·001	29·744	29·462	26th	29·248	10th	·214	85·0	97·7	−1·0	77·7	+1·0	87·7	0	20·0	102·0	4th	74·0	18th & 19th.	28·[illegible]
		Periyakulam		28·884			28·977	26th	28·762	10th	·215	81·1	94·5		73·3		83·9		21·2	100·2	10th	68·2	22nd	32·0

* Mean of 29 days.
† Mean of 22 days.

continued.

ndia, Burma, etc., in June 1900—continued.

Wind Direction. Number of Winds from: N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 30th June 1900.	Normal rainfall for period, 1st to 30th June.	Variation from normal of period, 1st to 30th June.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
	3		8		9	1	7	S. 43° W.	6·4	7·3	5·7	+37	49	·718	0·9	2	3·61	−1·64	1·12	2·54	−1·42	1·12	2·54	−1·42	0·65	Agra	N.-W. P., West	22
	3	6		5	3	9	1	S. 40° W.	5·4		5·8	− 7	48	·741	1·3	1	6·09	−5·09	0·39	4·89	−4·50	0·39	4·89	− 4·50	0·12	Jhansi	N.-W. P., Central	21
																			4·76	6·46	−2·04					IX.—Deccan.		
1				2	9	15	3	S. 77° W.	21·8		24·3	−10	82	·681	7·6	13	12·27	+0·73	11·32	6·59	+ 4·73	1·32	6·59	+ 4·73	2·67	Belgaum	Bombay Deccan.	38
1					12	6	11	N. 89° W.	14·9	10·7	12·2	−12	65	·668	6·3	10	7·82	+2·18	6·36	5·01	+ 1·35	6·36	5·01	+ 1·35	1·22	Sholapur.		
					8	18	4	S. 88° W.	20·2	22·8	16·0	+43	65	·679	5·7	2	7·18	−5·18	1·35	4·73	− 3·38	1·35	4·73	− 3·38	0·84	Poona.		
					10	15	5	S. 82° W.	9·8	9·6			73	·707	4·9	10	6·30	+3·70	3·64	2·69	+ 0·95	3·64	2·69	+ 0·95	0·75	Bijapur.		
2					7	20	1	S. 85° W.	15·1	17·4	11·9	+46	58	·672	2·5	5	7·82	−2·82	2·27	4·72	− 2·45	2·27	4·72	− 2·45	0·72	Malegaon	Khandesh.	40
2					1	17	9	N. 73° W.	12·0	14·6			70	·710	3·7	8			6·74	5·16	+ 1·58	6·74	5·16	+ 1·58	2·50	Ahmednagar.		
1					2	14	13	N. 70° W.	13·3	12·6	8·9	+42	63	·753	5·4	8	8·55	−0·55	5·79	5·47	+ 0·32	5·79	5·47	+ 0·32	2·71	Akola	Berar.	41
				1	11	9	1	S. 65° W.	13·6†	12·1	7·4	+64	67†	·770†	4·4	7	10·36	−3·36	2·74	6·84	− 4·10	2·74	6·84	− 4·10	0·79	Amraoti.		
						16	14	N. 69° W.	13·0		9·2	+41	60	·735	3·0	4	7·91	−3·91	2·24	6·05	− 3·81	2·24	6·05	− 3·81	1·05	Khandwa	Central Provinces, West.	42
	2		1		25		2	S. 48° W.	7·1	7·8	4·6	+70	68	·836	2·1	3	10·09	−7·09	1·64	8·20	− 6·56	1·64	8·20	− 6·56	0·81	Hoshangabad.		
1	1			1	7	10	5	S. 88° W.	11·0		10·0	+10	57	·691	6·2	4	12·73	−8·73	2·69	8·74	− 6·05	2·69	8·74	− 6·05	1·09	Nagpur.		
3		1	1	1	2	18	2	N. 86° W.	4·7		6·3	−25	59	·753	6·8	10			3·46	7·85	− 4·39	3·46	7·85	− 4·39	0·95	Chanda	Central Provinces, Central.	43
2	3	1		3	5	6	10	N. 71° W.	4·0		5·7	−30	57	·663	3·9	6	13·00	−7·00	3·61	10·57	− 6·96	3·61	10·57	− 6·96	1·61	Seoni.		
	1		1	3	7	14	3	S. 73° W.	6·4		5·3	+21	49	·642	2·7	2	11·18	−9·18	0·70	9·10	− 8·40	0·70	9·10	− 8·40	0·39	Jubbulpore.		
1	3	1	2	1	5	16	1	S. 82° W.	4·2	4·7	5·2	−10	59	·790	2·8	4	9·73	−5·73	2·47	7·40	− 4·93	2·47	7·40	− 4·93	0·89	Saugor.		
1	6	4	1		11	3	4	S. 85° W.	8·0	8·6	9·6	−10	41	·606	3·1	1	5·91	−4·91	0·29	6·54	− 6·25	0·29	6·54	− 6·25	0·26	Sutna	Central India	47
	1				20	3	1	S. 54° W.	10·3	9·5	8·7	+ 9	60	·726	3·3	6	11·55	−5·55	9·28	8·92	+ 0·36	9·28	8·92	+ 0·36	3·50	Raipur	Central Provinces, East.	44
1	2	4	3	2	13	4	1	S. 32° W.	6·4	6·3	3·4	+85	65	·808	7·5	8			10·84	11·13	− 0·29	10·84	11·13	− 0·29	3·80	Sambalpur.		
					13	4	12	S. 87° W.	14·4	13·8			68	·792	5·2	4			1·08	4·60	− 3·52	1·08	4·60	− 3·52	0·56	Indur	Hyderabad (North).	30
8					20	2		S. 69° W.					80	·888	1·8§	6			6·55	6·30	+ 0·25	6·55	6·30	+ 0·25	1·80	Bidar.		
3	2				4	11	10	N. 66° W.	15·8	15·1			73	·757	5·6	8			7·12	4·82	+ 2·30	7·12	4·82	+ 2·30	3·13	Gulbarga	Hyderabad (South).	5
					16	4	9	S. 78° W.	15·4	15·1			70	·758	5·0	7			5·44	3·90	+ 1·54	5·44	3·90	+ 1·54	1·74	Raichur.		
1				1		17	11	N. 73° W.	9·9	9·6			67	·700	6·5	10			4·78	4·85	− 0·07	4·78	4·85	− 0·07	1·64	Hyderabad (Deccan).		
			1		9	16	4	S. 80° W.	12·7		12·3	+ 3	67	·692	5·6	7			3·79	4·85	− 1·06	3·79	4·85	− 1·06	1·91	Secunderabad.		
5	3	12	5	1	1	1	1	N. 80° E.	11·3	9·6			65	·742	2·9	7			3·93			3·93			1·54	Hanumkonda.		
																			32·59	27·73	+4·85					X.—West Coast.		
		1	2	2	6	13	6	S. 80° W.	11·3		16·2	−30	80	·945	6·7	8	14·84	−6·84	17·39	19·37	− 1·98	17·39	19·37	− 1·98	5·36	Bombay.	Konkan.	37
2	1	1	3	3	3	7	6	S. 88° W.	6·4	6·3	12·0	−48	81	·887	7·3	18	21·45	−3·45	36·38	31·26	+ 5·12	36·38	31·26	+ 5·12	7·89	Ratnagiri.		
1		1	5	2	1	11	9	N. 85° W.	11·1‖				86	·906	7·9	19			39·54	22·02	+17·52	39·54	22·02	+17·52	4·83	Mormugao.		
4	2	4	1	2	6	7	4	N. 84° W.					85	·893	8·6	18			31·73	30·09	+ 1·64	31·73	30·09	+1·64	3·70	Goa.		
6					9	6	9	S. 71° W.	6·8				83	·832	7·9	20	24·36	−4·36	54·59	37·24	+17·35	54·59	37·24	+17·35	6·01	Karwar.		
4	4	1		2	3	9	4	N. 61° W.	7·5				85	·877	8·3	21	24·80	−3·80	28·30	28·41	− 0·11	28·30	28·41	− 0·11	7·30	Cochin	Malabar.	33
4	3	3	2	1	5	5	7	N. 53° W	10·1	12·7			86	·876	8·7	22	25·00	−3·00	34·83	33·22	+ 1·61	34·83	33·22	+ 1·61	6·31	Calicut.		
		3	2	1	3	3	4	S. 63 W.	2·7		3·7	−27	87	·879	8·8	23	25·60	−2·60	39·79	35·03	+ 4·76	39·79	35·03	+ 4·76	4·17	Mangalore.		
9						6	12	N. 39° W.	7·2				86	·851	8·3	15			10·73	12·95	− 2·22	10·73	12·95	− 2·22	1·44	Trivandrum.		
																			2·01	2·81	−0·76					XI.—South India.		
				5	24	1		S. 39° W.	14·8	15·6			79	·921	3·6	1	0·30	+0·70	0·15	0·04	+ 0·11	0·15	0·04	+0·11	0·15	Pamban	Madras (South).	57
	1			2	8	12	7	S. 85° W.	8·3	8·0			62	·779	7·2	1	1·60	−0·60	0·29	0·71	− 0·42	0·29	0·71	− 0·42	0·12	Tinnevelly.		
3		1		1	11	5	6	S. 84° W	2·6	2·6	4·8	−46	65	·781	5·7	1	2·00	−1·00	0·32	1·50	− 1·18	0·32	1·50	− 1·18	0·14	Madura.		
1	7	3	1		4	5	6	N. 23° W.	4·4	4·8			69	·727	6·3	3			1·10			1·10			0·57	Periyakulam		

‖ Mean of 28 days.

§ Mean of 19 days.

Table

Abstract of Observations taken at 8 A.M. at 219 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
24	Madras, South Central.	Salem	940	28·897	−·006	29·771	28·971	26th	28·780	11th	·191	82·7	98·5	+4·2	76·6	+3·1	87·6	+3·7	21·9	105·4	3rd & 4th.	73·0	3 days	32·4
		Coimbatore	1,348	28·488	+·009	29·780	28·555	4th	28·372	11th	·183	78·2	90·3	+0·5	72·9	+1·4	81·6	+1·0	17·4	97·9	9th	69·3	20th	28·6
35	Coorg	Mercara	3,781	26·167	+·009		26·243	4th	26·046	11th	·197	66·8	72·6	+0·5	61·5	+1·3	68·5	+0·9	8·1	83·5	4th	60·2	26th	23·3
36	Mysore	Chitaldroog	2,405	27·420	+·014	29·738	27·513	3rd & 4th.	27·309	13th	·204	75·2	88·7	+3·2	70·4	+0·9	79·6	+2·1	18·3	99·2	4th	66·9	5th	32·3
		Bangalore	3,021	26·858	−·001	29·763	26·961	4th	26·748	11th	·213	73·4	86·5	+1·9	68·2	+1·6	77·4	+1·8	18·3	94·8	4th	65·3	25th & 27th.	29·5
		Hassan	3,091	26·804*		29·792*	26·899	4th	26·675	11th	·224	72·7*	81·5†		66·5*		74·1†		15·0	92·6	5th	63·4	26th	29·2
		Mysore	2,518	27·366	+·023	29·797	27·472	4th	27·234	11th	·238	74·7	86·3	+1·8	69·2	+1·0	77·8	+1·4	17·1	97·6	3rd	67·0	3 days	30·6
56	Madras, East Coast, South.	Negapatam	31	29·770	0	29·729	29·848	26th	29·657	10th	·191	86·8	100·6	?	81·1	+2·2	90·9	?	19·5	105·5	7th	77·9	1st	27·6
		Cuddalore	12	29·765	−·001	29·706	29·862	26th	29·645	10th	·217	83·7	100·9	+2·6	81·0‡	+1·3‡	90·9‡	+2·0	19·9	106·8	4th	75·2	17th	31·6
		Trichinopoly	255	29·550	−·005	29·736	29·635	26th	29·443	10th	·192	84·8	99·3	+0·8	79·4	+1·4	89·4	+1·1	19·9	104·1	4th	71·4	4th	32·7
		Madras	22	29·733	−·014	29·685	29·824	5th	29·615	10th	·209	88·6	101·8	+3·5	82·5	+2·2	92·2	+2·9	19·3	110·0	4th	77·0	22nd & 29th.	33·0
		Vellore	707	29·080		29·719	29·154	4th & 29th.	28·973	10th	·181	85·4	100·1		85·4		91·8		16·7	110·3	4th	76·7	21st	33·6
55	Madras, East Coast, Central.	Nellore	71	29·661	+·004	29·664	29·791	5th	29·548	13th	·243	89·4	102·8	+1·1	82·1	0	92·5	+0·6	20·7	114·8	3rd	76·1	30th	38·7
		Masulipatam	15	29·689	+·003	29·638	29·845	5th	29·548	13th	·297	86·8	99·1	+1·6	80·8	+0·7	90·0	+1·2	18·3	110·2	3rd	73·6	22nd	36·6
54	Madras, Central	Cuddapah	433	29·323	−·008	29·669	29·402	5th	29·211	13th	·191	87·8	102·7	+4·0	81·9	+1·9	92·3	+3·0	20·8	111·3	3rd & 4th.	75·8	29th	35·5
		Kurnool	924	28·829	−·007	29·688	28·921	5th	28·704	13th	·217	82·9	99·8	+4·2	78·3	+2·1	89·1	+3·2	21·5	111·3	4th	71·4	21st	39·9
		Bellary	1,475	28·305	+·002	29·714	28·385	4th	28·207	11th & 12th.	·178	82·0	96·3	+1·6	77·4	+1·9	86·9	+1·8	18·9	106·2	4th	74·2	6th & 29th.	32·0
52	Madras, East Coast, North.	Cocanada	26	29·642	−·006	29·603	29·814	5th	29·496	13th	·318	86·3	97·1	+2·1	81·7	+0·9	89·4	+1·5	15·4	106·6	20th	77·0	29th	29·6
		Waltair	226	29·410	−·011	29·575	29·611	5th	29·239	13th	·372	84·7	91·6	+0·7	80·6	−0·5	86·1	+0·1	11·0	98·9	18th	71·9	4th	27·0
		Gopalpur	21	29·583	−·017	29·543	29·819	4th	29·333	12th	·486	85·3	90·8	+1·7	79·9	−0·7	85·4	+0·5	10·9	97·3	19th	72·0	3rd	25·3
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·544			25·750	3rd	25·380	15th	·370	89·0	103·7		68·8		86·3		34·9	112·0	21st	60·0	17th	52·0
		Pishin											94·9		56·5		75·7		38·4	100·0	4 days	51·0	9th & 17th.	49·0
		Quetta	5,502	24·517	+·040		24·689	4th	24·364	15th	·325	74·6	91·1	+0·5	55·4	−3·8	73·3	−1·7	35·7	97·1	22nd	50·9	17th & 18th.	46·2
		Kalat										79·1	90·0		47·6		68·9		42·4	96·7	24th	41·8	30th	54·9
		Chaman	4,311	25·584	+·105		25·754	4th	25·427	15th	·327	84·4	99·1	−1·3	68·9	−2·4	84·0	−1·9	30·2	106·2	19th	54·6	2nd	51·6
30	Punjab	Leh	11,503	19·722	+·048		19·847	5th	19·589	14th & 15th.	·258	53·6	69·6	−3·5	41·4	−2·7	55·5	−3·1	28·2	75·6	30th	35·6	18th	40·0
		Srinagar	5,204	24·789	+·058		24·993	3rd	24·615	15th	·384	64·1	78·9	−4·3	55·9	−2·8	67·3	−3·6	23·0	87·3	21st	49·2	14th	38·1
		Gulmarg		21·833			21·957	5th	21·673	15th	·284	57·2	64·5		41·5		53·0		23·0	73·9	22nd	34·2	3rd	39·7
		Skardu		22·801			22·943	4th	22·667	25th	·276	64·2	79·8		55·8		67·8		24·0	88·1	21st	48·2	14th	39·9
		Dras		20·798			20·907	5th	20·631	15th	·276	56·7	73·2		38·2		55·7		35·0	79·9	22nd & 26th.	32·6	3rd	47·3
		Gilgit		25·007			25·154	11th	24·855	15th	·299	73·5	88·8		63·7		76·3		25·1	99·9	21st	40·9	16th	59·0
		Chitral		24·533			24·706	4th	24·337	25th	·369	74·1	89·9		61·6		75·7		28·3	97·7	21st & 30th.	52·5	3rd	45·2
		Killa Drosh										74·3	90·9		66·2		78·6		24·7	99·4	30th	55·1	1st	44·3
		Para Chinar	6,000									77·4	87·8		64·8		76·3		23·0	97·9	22nd	55·9	1st & 2nd.	42·0
		Cherat		25·520	+·014		25·723	5th	25·351	14th	·372	81·1	94·4	+0·2	74·6	+1·5	84·5	+0·9	19·8	106·0	22nd	65·1	1st	40·9
		Murree	6,333	23·771	+·051		23·918	5th	23·635	14th	·283	74·1	83·9	+1·9	65·5	+1·1	74·7	+1·5	18·4	94·4	21st	50·9	1st	43·5
		Poo											75·3		53·5		64·4		21·8	82·4	13th	46·6	2nd	35·8
		Simla	7,224	23·042	+·035		23·220	5th	22·872	14th	·348	67·4	76·9	+1·6	62·0	+1·4	69·5	+1·5	14·9	83·2	22nd	48·7	14th	34·3
29	N.-W. Provinces	Chakrata	7,022	23·225	+·066		23·423	5th	23·070	14th	·353	65·9	74·1	−0·8	59·4	−0·6	66·8	−0·7	14·7	81·3	1st	48·7	3rd	32·6
		Mussooree	6,705	23·465	+·025		23·661	5th	23·308	14th	·353	67·4	77·6	+1·6	61·7	+1·2	69·7	+1·4	15·9	83·3	1st	47·5	14th	35·8
		Ranikhet	6,069	23·993	+·037		24·201	5th	23·844	15th	·357	69·5	79·8	+1·8	63·5	+0·4	71·7	+1·1	16·3	86·1	1st	52·5	4th & 14th.	33·6
		Muktesar		22·768			22·949	5th	22·627	15th	·322	64·1	75·9		57·3		66·6		18·6	81·7	21st	48·0	14th	33·7

* Mean of 29 days. † Mean of 28 days.

-continued.

India, Burma, etc., in June 1900—continued.

Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 30th June 1900.	Normal rainfall for period, 1st to 30th June.	Variation from normal of period, 1st to 30th June.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
		1	5	3	9	9	2	S. 47° W.	7·7	6·9	4·9	+41	69	·777	5·7	3	6·00	−3·00	0·88	3·68	− 2·80	0·88	3·68	− 2·80	0·37	Salem	Madras, South Central.	34
				3	16	11		S. 58° W.	5·1		7·7	−34	81	·794	6·7	7	4·55	+2·45	2·28	1·43	+ 0·85	2·28	1·43	+ 0·85	0·50	Coimbatore.		
					7	11	12	N. 82° W.	7·9	7·3	9·0	−19	94	·620	9·1	22	25·00	−3·00	38·57	25·71	+12·86	38·57	25·71	+12·86	4·62	Mercara	Coorg.	35
					16	12	2	S. 68° W.	13·5	11·7			77	·678	8·6	7			2·57	3·10	− 0·53	2·57	3·10	− 0·53	0·83	Chitaldroog.	Mysore.	36
					19	10	1	S. 62° W.	13·9	12·0	8·4	+43	79	·652	6·4	4	5·91	−1·91	2·97	3·45	− 0·48	2·97	3·45	− 0·48	1·63	Bangalore.		
					12	13	4	S. 76° W.	5·8*	5·1*			82*	·656*	8·3*	13			6·07	4·12	+ 1·95	6·07	4·12	+ 1·95	1·77	Hassan.		
					16	12	2	S. 68° W.	14·0	15·1			79	·674	9·2	5			2·46	2·12	+ 0·34	2·46	2·12	+ 0·34	1·06	Mysore.		
				3	15	11		S. 37° W.	9·1	9·9	8·3	+ 19	64	·821	4·2	1	3·09	−2·09	0·18	1·74	− 1·56	0·18	1·74	− 1·56	0·18	Negapatam	Madras, East Coast, South.	56
			1	7	10	9	3	S. 54° W.	4·2	5·2			63	·820	5·0	2	3·30	−1·30	0·40	1·48	− 1·08	0·40	1·48	− 1·08	0·17	Cuddalore.		
					6	21	2	S. 84° W.	9·8		9·2	+ 7	63	·752	6·6	3	2·00	+1·00	1·96	1·62	+ 0·34	1·96	1·62	+ 0·34	0·76	Trichinopoly		
			1	3	7	16	3	S. 73° W.	8·6		9·0	− 4	60	·813	5·8	5	4·18	+0·82	1·46	2·11	− 0·65	1·46	2·11	− 0·65	0·37	Madras.		
					25		3	S. 51° W.	7·1				57	·683	5·5	4			2·13			2·13			1·13	Vellore.		
					2	13	13	N. 72° W.	9·2				60	·827	8·2	7	3·10	+3·90	2·04	1·50	+ 0·54	2·04	1·50	+ 0·54	0·88	Nellore	Madras, East Coast, Central.	55
1	1		1	1	2	11	11	N. 71° W.	11·5		9·4	+22	75	·958	7·8	5	7·00	−2·00	1·62	5·52	− 3·90	1·62	5·52	− 3·90	0·59	Masulipatam.		
5	2	3		2	5	8	5	N. 67° W.					58	·765	5·3	4	5·50	−1·50	1·48	4·11	− 2·63	1·48	4·11	− 2·63	0·84	Cuddapah.	Madras, Central.	54
					2	21	5	N. 86° W.					63	·699	7·5	8	5·50	+2·50	2·65	3·95	− 1·30	2·65	3·95	− 1·30	0·73	Kurnool.		
					1	22	7	N. 82° W.	12·4	13·1	10·5	+25	51	·555	8·2	4	3·64	+0·34	1·07	1·85	− 0·78	1·07	1·85	− 0·78	0·30	Bellary.		
1	1			3	10	12	2	S. 71° W.	9·6	8·8			69	·869	6·2	2	6·00	−4·00	1·27	5·37	− 4·10	1·27	5·37	− 4·10	0·50	Cocanada	Madras, East Coast, North.	52
				1	25	4		S. 50° W.	13·1				74	·868	7·3	6			3·97	3·49	+ 0·48	3·97	3·49	+ 0·48	1·48	Waltair		
3		3		3	16	2	2	S. 50° W.	16·0	15·7	11·6	+35	82	·978	3·1	7	7·44	−0·44	6·58	6·09	+ 0·89	6·93	6·09	+ 0·89	3·42	Gopalpur.		
																										XII.—Hill Stations.		
5			2	1	8	1	10	N. 72° W.	7·6				19	·259	0	0			0	1·25	− 1·25	0	1·25	− 1·25	0	Shahrig	Baluchistan	48
																0			0	0·06	− 0·06	0	0·06	− 0·06	0	Pishin.		
								Calm.	1·4	1·5	4·7	−68	50	·425	0·1	0	0·36	−0·36	0	0·12	− 0·12	0	0·12	− 0·12	0	Quetta.		
4				11		15		S. 65° W.					28	·283	0	0			0	0·21	− 0·21	0	0·21	− 0·21	0	Kalat.		
5	2	2	4	3	9		5	S. 27° W.	7·8	8·3			59	·697	0·1	0			0	0·15	− 0·15	0	0·15	− 0·15	0	Chaman.		
2	1	4	2	12	5	3	1	S. 4° W.	3·0		2·4	+25	36	·146	3·8	1			0·20	0·21	− 0·01	0·20	0·21	− 0·01	0·15	Leh	Punjab.	30
1		1	3	4		1	2	S. 10° E.	3·9	4·1			87	·530	2·3	4			1·81	4·12	− 2·31	1·81	4·12	− 2·31	0·81	Srinagar.		
3	10	1	1		4	1	2	N. 25° E.	4·2				89	·432	3·1	8			3·94			3·94			1·02	Gulmarg.		
1	6	2		1	3	7	1	N 52° W.	7·3	8·7			58	·342	3·3	3			0·59	0·54	+ 0·05	0·59	0·54	+ 0·05	0·18	Skardu.		
1					1	2		N. 83° W.	6·1	6·3			49	·221	2·7	5			1·85			1·85			0·52	Dras.		
	1					1		N. 15° W.	2·2	2·1			39	·312	3·7	0			0·06	0·16	− 0·10	0·06	0·16	− 0·10	0·06	Gilgit.		
	3		2					N. 76° E.	2·2§	2·1§			46	·372	0·3	3			1·26			1·26			0·54	Chitral.		
1		9		7				S. 56° E.					47	·388	1·6	3			1·78			1·78			1·00	Killa Drosh.		
6	4	1	1		4	8	6	N. 48° W.	4·8				32	·298	5·9	2			0·71			0·71			0·34	Para Chinar.		
11	1		1	6	2		8	N. 34° W.	10·1	9·4			33	·345	2·4	1			0·18	0·48	− 0·30	0·18	0·48	− 0·30	0·14	Cherat.		
1	1	2	6	4	1		1	S. 41° E.	4·6	5·7	6·6	−13	38	·324	1·4	2	4·55	−2·55	1·89	2·87	− 0·98	1·89	2·87	− 0·98	1·41	Murree.		
															3·5	2			0·35	0·27	+ 0·08	0·35	0·27	+ 0·08	0·19	Poo.		
8	2	1		6	3		1	N. 11° W.	4·6		2·3	+100	52	·340	1·7	4	10·00	−6·00	2·07	6·79	− 4·72	2·07	6·79	− 4·72	0·74	Simla.		
5	2	2	8	4	3		6	S. 71° E.	11·8		5·7	+107	59	·371	2·3	10			4·21	6·91	− 2·70	4·21	6·91	− 2·70	0·72	Chakrata	N.-W. Provinces	25
	2	5	3	1	2	4	12	N. 45° W.	?		10·9	?	62	·418	4·0	5	10·20	−5·20	2·24	8·70	− 6·46	2·24	8·70	− 6·46	0·80	Mussooree.		
2	1	1		2	4	7		N. 86° W.	4·4	5·0	3·2	+56	63	·456	2·7	8	9·12	−1·12	4·69	5·94	− 1·25	4·69	5·94	− 1·25	1·39	Ranikhet.		
			4	1	2	2	21	N. 56° W.	5·7	5·2			68	·408	3·3	9			4·42			4·22			1·25	Muktesar.		

‡ Mean of 27 days. § Mean of 21 days.

Tabl

Abstract of Observations taken at 8 A.M. at 219 Station

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
13	Bengal	Yatung	10,180?										61·6		46·1		53·9		15·5	65·1	11th & 13th.	37·9	1st	27·2
		Darjeeling	7,409	22·924	+·028		23·113	5th	22·708	15th	·405	60·8	65·7	+0·5						72·2	12th			
		Gantok	5,660	24·374			24·561	4th	24·144	15th	·417	66·4	75·6		46·3		61·0		29·3	80·6	12th	41·0	2nd	39·5
	Central India	Mount Abu	3,945	25·870	+·001		26·045	3rd	25·745	14th	·300	76·6	88·3	+5·0	71·3	+3·3	79·8	+4·2	17·0	100·2	13th	66·8	25th & 26th.	33·4
		Pachmarhi	3,528	26·274	+·023		26·455	4th	26·109	13th	·346	80·4	94·1	+8·5	75·2	+3·5	84·7	+6·0	18·9	99·2	5th	68·7	26th	30·5
	South India	Wellington	6,200	24·195	+·002		24·287	4th	24·101	11th	·186	66·4	73·5	+1·7	58·6	+0·4	66·0	+1·1	14·9	81·2	1st & 3rd.	53·2	8th	28·0
		Kodai Kanal	7,688	22·793			22·888	4th	22·692	11th	·196	59·1	65·6		53·9		59·8		11·7	72·9	1st	50·1	7th	22·8
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·809	+·006	29·747	29·889	25th	29·696	10th	·193	82·2	91·1	−3·3	79·6	+1·8	85·4	−0·8	11·5	96·0	3rd	75·5	25th	20·5
		Colombo	40	29·872	+·008	29·839	29·953	25th	29·791	9th & 10th.	·162	82·1	89·3	+1·7	78·4	+1·1	82·9	+1·4	8·9	90·5	4 days	72·0	25th	18·5
	Persia	Meshed	3,104									77·3			63·8							56·8	9th	
		Teheran		25·846* / 25·260†			26·080 / 25·440	7th / 7th	25·640 / 25·120	16th / 16th & 26th.	·440 / ·320	79·4	93·3		57·4		75·4		35·9	103·7	30th	49·8	18th	53·3
		Ispahan		24·251*			24·425	6th & 7th.	24·125	26th	·300	78·5	93·6		61·9		77·8		31·7	101·5	30th	54·4	6th	47·1
		Bushire	14	29·626	+·049	29·599	29·863	5th	29·162	24th	·401	86·2	91·8	−0·4	80·4	+0·1	86·1	−0·2	11·4	99·0	5th	72·0	13th	27·0
		Jask		29·585	+·020		29·800	4th	29·466	15th	·394	89·9	97·4	+1·5	82·6	−0·4	90·0	+0·6	14·8	104·2	3 days.	78·2	3 days	26·0
	Arabia	Muscat	20	29·594		29·561	29·866	4th	29·471	14th	·395	93·6	96·3		90·1		93·3		6·2	104·8	15th	84·0	4th & 5th.	20·8
		Baghdad	221	29·607	−·072	29·798	29·822	26th	29·403	29th	·419	84·7	103·5	+1·1	73·8	−1·8	88·7	−0·4	29·7	112·9	25th	64·6	4th	48·3
		Busrah		29·679			29·910	4th	29·495	23rd	·415		101·1		83·1		92·1		18·0	106·9	14th	76·9	19th	30·0
		Aden ‡	94	29·706	+·045	29·730	29·831	6th	29·611	21st	·220	89·3	95·4	+1·4	84·5	+1·5	90·0	+1·5	10·9	98·8	15th	79·3	1st & 4th.	19·5
		Perim	200	29·605		29·736	29·718	4th	29·514	21st	·204	89·1	95·3		84·6		90·0		10·7	100·5	11th	82·2	3rd	18·3
	Afghanistan	Kabul										73·7	89·0		58·2		73·7		30·8	95·1	7th & 22nd.	51·4	3rd & 17th.	43·7
	Central Asia	Kashgar		25·503			25·700	4th	25·273	14th	·427	72·4	87·3		65·2		75·3		24·1	99·3	7th	5·25	17th	46·8
	Arabian Sea Islands.	Amini Devi	13																					
		Minicoy	7	29·910		29·842	29·975	4th	29·782	11th	·193	83·5	87·9							92·9	6th			
	Africa	Zanzibar	73	30·084	+·009	30·084	30·147	4 days	29·997	10th	·150	76·4	82·1		74·6		78·4		7·5	84·6	8th	72·5	27th	12·1
		Do. Dunga.																						

‡ Mean of 28 days.

NOTE.—When a query is inserted against any reading or in the variation returns for any station, t
* Aneroid uncorrected. † Mountain barometer uncorrected.

—concluded.

India, Burma, etc., in June 1900—concluded.

Wind Direction. Number of Winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 30th June 1900.	Normal rainfall to period, 1st to 30th June.	Variation from normal of period, 1st to 30th June.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																			11·36			11·36			2·56	Yatung	Bengal.	13
2 1	5	6	4			2		N 79° E	3·9	3·6	4·7	−23	93	·497	7·5	22	21·04	+0·96	30·10	23·69	+6·41	30·10	23·69	+6·41	7·20	Darjeeling.		
3	1							N 45° E	3·1	3·7			85	·558	5·1	17			13·01	21·76	−8·75	13·01	21·76	−8·75	2·32	Gantok.		
	2		6	7	11	3	1	S 24° W	12·9	13·4	10·1	+33	62	·528	4·2	0	6·70	−6·70	0	6·13	−6·13	0	6·13	−6·13	0	Mount Abu	Central India.	
1	1				2	10	13	N 67° W	11·1	11·4	7·7	+48	69	·714	4·7	6	11·64	−5·64	2·27	9·80	−7·53	2·27	9·80	−7·53	0·66	Pachmarhi.		
3	6	2		1	12	4	2	S 87° W	6·9		5·1	+35	64	·411	7·0	8	7·22	+0·78	2·32	3·73	−1·41	2·32	3·73	−1·41	0·37	Wellington	South India.	
	1	1	1		6	4	17	N 62° W	18·3				75	·373	7·5	6			2·63			2·63			0·84	Kodai Kanal		
					30			S 45° W	22·4				82	·942	2·9	0			0	2·05	−2·05	0	2·05	−2·05	0	XIII.—Extra India. Trincomalee	Ceylon.	
			1	1	19	9		S 55° W	11·2		10·2	+10	86	·954	7·2	15			7·84	7·24	+0·60	7·84	7·24	+0·60	2·08	Colombo.		
													53	·492	0·7	2			0·49	0·22	+0·27	0·49	0·22	+0·27	0·30	Meshed	Persia.	
	1	4		1	7	8	6	3	S 55° W	1·9	2·5		31	·319	0·9	0			0·02	0·01	+0·01	0·02	0·01	+0·01	0·02	Teheran.		
			Not	re	cor	ded				2·5	3·3		80	·772	0·1	0			0	0	0	0	0	0	0	Isphahan.		
	4	3	1		1	1	1	19	N 33° W	10·1	12·1	10·8	+12	64	·802	0·5	0		0	0	0	0	0	0	0	Bushire.		
5	1		6	7			4	7	N 63° E	11·2	13·0			68	·948	0·4	0		0	0·13	−0·13	0	0·13	−0·13	0	Jask.		
3	1			5		1	2	18	N 50° W	4·7	4·8			53	·602	0·9	0		0	0	0	0	0	0	0	Muscat	Arabia.	
2	18						2	8	N 18° W	4·3	5·6			42	·504	0·4	0		0·02	0·01	+0·01	0·02	0·01	+0·01	0·02	Baghdad.		
1	27			1	1				N 2° E								0		0·03			0·03			0·03	Busrah.		
1		7	5	6	2	5		2	S 70° E	9·0		7·6	+18	68	·935	3·4	0		0	0·01	−0·01	0	0·01	−0·01	0	Aden.		
1	3	1	7	4	2	8	4		S 7° E	15·4	14·3			69	·948	0·5	0		0	0	0	0	0	0	0	Perim.		
5			2				8	5	N 68° W					38	·323	0			0	0·37	−0·37	0	0·37	−0·37	0	Kabul	Afghanistan.	
0	2		3	1	1		2	1	N 45° E	9·8	8·8			26	·202	4·6	2		0·90	0·53	−0·37	0·90	0·53	−0·37	0·50	Kashgar	Central Asia.	
					4	20	6	N 88° W	16·9	18·0			82	·912	5·8	15			12·28			12·28			2·50	Amini Devi. Minicoy	Arabian Sea Islands.	
				3	17	10		S 11° W	8·2	7·7			85	·776	5·7	2			1·23	1·24	−0·01	1·23	1·24	−0·01	0·99	Zanzibar	Africa.	
																										Do. Dunga		

ata for that station are not utilized in calculating the provincial variations.

Table

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

Meteorological Provinces.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure. Mean of 10 hours.	Pressure. Mean of 16 hours.	Pressure. Mean daily range.	Pressure. Mean daily pressure.	Pressure. Variation from normal.	Pressure. Mean reduced to S. L. and for gravity, 45° Lat.	Temperature of Air. Mean maximum.	Temperature of Air. Mean minimum.	Temperature of Air. Mean daily range.	Temperature of Air. Highest maximum.	Temperature of Air. Lowest minimum.	Temperature of Air. Absolute range.	Temperature of Air. Mean 10 hours.	Temperature of Air. Mean 16 hours.	Temperature of Air. Mean daily.	Temperature of Air. Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Temperature, Wet-bulb. Mean 10 hours.	Temperature, Wet-bulb. Mean 16 hours.	Temperature, Wet-bulb. Mean daily.
Burma Coast and Bay Islands.	Port Blair		29·773	29·692	·081	29·729	+·005	29·720	87·2	79·2†	8·0	92·2	74·6	17·6	85·0	85·3	82·1†	+1·3	76·5	80·5	80·3	79·1
	Rangoon		·754	·661	·093	·718	−·017	·696	85·4	76·9	8·5	89·9	74·9	15·0	81·7	81·5	79·4	0	75·6	79·2	78·6	77·8
	Diamond Island		·745	·665	·080	·701	−·019	·677	85·2	79·0	6·2	89·8	73·7	16·1	83·0	82·8	81·0	+1·5	76·0	79·3	79·0	78·1
	Cocos Island	111	·719	·644	·075	·678	?	·720	85·5	77·5	8·0	91·6	73·3	18·3	83·0	82·9	80·4	−0·3	?	79·2	79·0	?
	Akyab		·684	·591	·092	·641	?	·603	88·0	?	?	96·6	?	?	84·2	85·0	?	?	?	80·2	80·2	?
Bengal and Orissa.	Chittagong		·590	·507	·083	·555	−·012	·588	87·5	76·8	10·7	93·9	71·3	22·6	83·8	83·1	80·7	+0·2	75·5	79·3	78·7	77·8
	Calcutta (Alipore)		·576	·492	·084	·540	−·007	·506	92·1	79·3	12·8	99·3	70·2	29·1	87·0	89·3	85·6	+1·1	77·7	81·5	81·3	80·3
	Saugor Island		·569	·491	·078	·536	−·014	·504	90·5	82·0	8·5	95·4	74·7	20·7	87·6	87·8	85·1	+0·4	79·4	82·5	82·8	81·6
	False Point		·580	·499	·081	·544	−·030	·505	91·1	80·9	10·2	103·1	73·9	29·2	88·0	88·0	84·7	+1·0	78·9	82·6	82·3	81·3
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·617	27·533	·084	27·584	+·006	·489	92·5	77·0	15·5	105·3	69·0	36·3	85·7	86·9	83·0	+1·1	71·9	74·6	74·3	73·6
	Darbhanga		29·441	29·338	·103	29·395	+·007	·512	92·1	79·5	12·6	102·3	73·0	29·3	87·0	90·2	84·3	−0·2	76·5	79·5	80·7	78·9
	Allahabad		·252	·136	·116	·196	−·008	·446	104·9	85·0	19·9	112·4	73·3	39·1	96·9	102·9	93·9	+3·3	74·9	79·6	79·3	78·0
Upper Sub-Himalayas.	Dehra Dun		27·407	27·310	·097	27·349	−·006	·468	95·1	76·1	19·0	104·3	63·1	41·2	86·5	91·2	84·8	+0·8	67·8	71·8	72·4	70·7
	Roorkee		28·685	28·570	·115	28·623	+·003	·443	101·9	80·0	21·9	111·7	61·3	50·4	93·0	99·2	90·5	+0·6	70·3	75·4	75·7	73·8
	Meerut		·816	·694	·122	·746	?	·421	104·8	82·3	22·5	110·2	74·5	35·7	95·2	99·0	92·3	+1·7	71·8†	76·9	77·4	75·4
	Lahore		·826	·720	·106	·767	−·006	·404	107·4	84·9	22·5	115·6	76·9	38·7	97·7	106·9	95·6	+4·4	70·1	75·7	76·7	74·2
	Lahore (new shed)								110·0	83·8	26·2	118·4	75·9	42·5	99·7	107·9	96·0		70·1	75·5	76·1	73·9
	Ludhiana		·718	·602	·116	·654	?	·396	107·6	84·9	22·7	114·5	73·5	41·0	96·9	105·2	95·5	+4·3	73·5	74·4	75·5	74·5
Indus Valley and N.-W. Rajputana.	Peshawar		·466	·364	·102	·409	+·022	·451	107·3	76·7	30·6	115·5	67·9	47·6	98·1	104·4	90·9	+1·0	63·5	72·6	74·1	70·1
	Jacobabad		29·325	29·197	·128	29·255	−·004	·386	118·3	85·9	32·4	124·7	81·1	43·6	104·1	116·8	101·3	+4·2	72·1	82·0	85·2	79·8
	Kurrachee		·578	·488	·090	·534	−·002	·514	97·0	83·7	13·3	112·5	81·2	31·3	92·2	93·1	89·0	+2·2	78·4	82·8	83·8	81·7
E. Rajputana, C. India and Gujarat.	Jaipur		28·192	28·078	·114	28·135	+·002	·464	107·4	85·2	22·2	113·4	78·0	35·4	96·4	105·0	95·6	+5·0	71·1	76·9	75·6	74·5
	Udaipur		27·747	27·646	·101	27·697		·496	102·4	81·5	20·9	112·1	77·4	34·7	92·8	100·3	91·4		72·9	75·7	76·8	75·1
	Deesa		29·190	29·047	·143	29·123	0	·525	106·3	82·3	24·0	117·9	77·8	40·1	92·8	105·2	93·4	+3·6	74·5	77·4	77·2	76·4
	Jamnagar		·597	·504	·093	·550		·557	99·2	80·4	18·8	105·8	76·8	29·0	93·7	95·4	88·8		?	79·1	80·3	?
Deccan.	Belgaum		27·274	27·194	·080	27·238	+·007	·673	83·6	68·7	14·9	99·2	64·8	34·4	78·3	78·0	74·3	+1·7	67·0	70·9	73·6	69·5
	Sholapur		28·164	28·028	·136	28·106	−·008	·601	97·2	75·2	22·0	109·1	71·0	38·1	86·8	93·3	84·3	+2·4	70·0	73·0	72·9	72·4
	Poona		27·928	27·837	·091	27·889	+·014	·629	94·0	73·8	20·2	104·2	69·5	34·7	86·0	90·0	82·7	+3·4	70·5	72·6	72·9	72·0
	Akola		28·753	28·605	·148	28·684	−·005	·536	103·9	79·2	24·7	112·4	72·5	39·9	92·6	100·4	89·8	+4·2	72·8	76·9	76·2	75·5
	Buldana	2,132	27·591	27·465	·126	27·533	−·005	·534	98·2	75·5	22·7	106·5	71·6	34·9	87·0	96·0	85·4	+4·7	68·7	73·0	72·5	1·4
	Khandwa		28·625	28·483	·142	28·559	−·009	·524	103·5	81·4	22·1	110·7	74·1	36·6	91·7	100·6	91·5	+4·7	72·0	76·4	76·5	75·0
	Nagpur		·621	·490	·131	·561	−·002	·506	105·2	81·8	23·4	112·5	73·4	39·1	93·1	98·0	90·8	+4·8	71·6	76·4	75·6	74·5
	Do. (Sanitary Commr.'s Office)		·641	·514	·127	·583		·515	106·3	82·1	24·2	113·1	73·3	39·8	95·0	99·6	92·5		71·6	76·0	74·8	74·1
	Hyderabad (Deccan).		·047	27·932	·115	27·997	+·006	·587	95·6	76·9	18·7	108·9	72·4	36·5	86·4	92·8	85·6	+2·4	70·5	74·3	75·3	73·4
West Coast.	Bombay		29·740	29·656	·084	29·697	+·023	·673	90·4	81·8	8·6	93·4	75·0	18·4	86·6	87·4	85·5	+2·3	77·2	80·0	80·5	[illegible]
	Karwar		·806	·731	·075	·767	+·023	·743	85·3	76·2	9·1	91·7	69·3	22·4	81·9	82·2	80·2	+0·1	73·9	76·3	76·8	75·7

† Mean of 29 days.

‡ Mean of 23 days.

I.

t 66 Stations in India, Burma, etc., for June 1900.

Vapour Tension. From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Humidity. From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Cloud. Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Wind Direction. Number of Winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Normal.	Rainfall. Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%						
·881†	·983	·971	·945	+·029	88†	81	80	83	−3	8·0	8·0	8·0	+0·5					1	3	26	27	3	S 67° W	S 43° W	85	79	321	231			Port Blair	Burma Coast and Bay Islands.
·871	·968	·944	·928	+·026	94	89	88	90	+1	9·1	9·2	9·2	+0·5				1	10	23	21	5		S 15° W	S 23° W	77	71	126	123			Rangoon	
·852	·956	·943	·917	+·029	87	94	84	85	−1	8·9	8·8	8·9	+0·8	4		2	2	4	9	32	7		S 35° W	S 35° W	68	74	276*	216			Diamond Island	
?	·952	·945	?	?	?	84	84	?	?	9·3	9·3	9·3	+1·1		4				8	41	7		S 48° W	S 34° W	82	90		?	27·76	7·63	Cocos Island	
?	·983	·971	?	?	?	84	82	?	?	8·3	8·0	8·2	+0·7				5	20	22	8	5		S 12° E	S 3° E	72	57	62	97			Akyab	
·868	·946	·928	·914	+·045	94	82	82	86	0	8·5	9·3	8·9	+1·3		1	2	3	24	14	10	1	5	S 17° E	S 24° E	57	60	191*	160			Chittagong	
·935	1·004	·989	·976	+·019	93	79	73	81	−2	6·4	7·7	7·1	0	3		3	10	8	11	17	5	3	S 3° W	S 3° E	41	59	128	142			Calcutta (Alipore).	Bengal and Orissa.
·973	1·047	1·059	1·026	+·007	89	80	81	83	0	6·6	7·2	6·9	−0·8			5	3	6	26	16	3	1	S 6° W	S 12° W	63	68	335	372			Saugor Island.	
·963	1·043	1·028	1·011	+·042	91	79	78	83	0	6·7	7·8	7·3	+0·1		1	2	4	9	19	14	10	1	S 15° W	S 37° W	55	64	297*	303			False Point	
·722	·721	·694	·712	+·020	78	60	58	65	−1	7·9	9·6	8·8	+1·3	3	4	5	12	3	11	2	8	12	N 9° W	S 38° W	2	15	204*	225			Hazaribagh	Gangetic Plain and Chota Nagpur.
·878	·911	·922	·904	−·008	87	72	67	75	−1	4·4	4·5	4·5	−0·2		1	4	27	21	3	1			S 70° E	S 85° E	82	70	142	148			Darbhanga	
·734	·782	·687	·731	−·035	62	46	34	47	−9	3·4‡	3·2‡	3·3	−1·4	1	8	11	17	4	1	2	8	8	N 38° E	N 9° W	34	15	219*	166			Allahabad	
·583	·601	·565	·583	−·067	65	49	40	51	−12	2·1	3·5	2·8	−1·6	1	5		3	11	10	15	9	6	S 34° W	S 53° W	38	16	46	40			Dehra Dun	Upper Sub-Himalayas.
·618	646	·517	·614	−·042	61	43	33	46	−6	1·7	2·3	2·0	−1·3	22	4	1	3	20	5	1	1	3	S 47° E	S 10° E	32	17	94	95			Roorkee	
648†	·692	·661	667	−·026	59†	42	36	46	−6	7·7	7·5	7·6	+4·2	25		4	8	12		2	6	3	S 63° E	N 16° W	18	10	42*	64			Meerut	
·511	·595	·515	·550	−·067	45	33	23	34	−6	0·1	0·4	0·3	−2·7	18	3	3	5	11	6	2	7	5	S 25° E	N 19° E	12	6	64	88			Lahore	
·555	·562	·474	·530		48	30	20	33																							Lahore (new shed).	
·680	·556	·487	·574	−·080	57	32	23	37	−12	0·8	0·9	0·9	−2·3	12	8			6	29		5		S 2° W	S 64° W	42	8	76*	64			Ludhiana	
430	·496	·471	·466	−·053	47	28	22	33	−5	1·7	2·4	2·1	−0·1	24	11	7	7	1	2	1	3	4	N 21° E	N 41° E	28	31	64*	113			Peshawar	India Valley and N.-W. Rajputana.
·617	·804	·785	·736	+·077	50	40	26	38	−2	0	0·3	0·2	−0·7	18	1	1	6	17	6	3	5	3	S 30° E	S 33° E	31	45	104*	125			Jacobabad	
·903	1·000	1·041	·981	+·022	78	67	68	71	−4	1·8	1·9	1·9	−2·4						4	29	25	2	S 64° W	S 62° W	87	85	400*	423			Kurrachee	
·588	·680	·516	·594	−·073	48	39	23	37	−13	0·5	2·8	1·7	−2·8	1	2	5	5		2	16	23	6	S 83° W	N 66° W	50	45	156	165			Jaipur	E. Rajputana, C. India and Gujarat.
·709	·684	·632	·675		66	45	33	48		0·3	1·2	0·8		3	2	1			3	28	18	5	S 68° W		73		94				Udaipur	
·751	·736	·557	·682	−·050	69	48	26	47	−7	2·9	0·3	1·6	−3·4		2		1		4	34	18	1	S 59° W	S 42° W	81	70	156	397			Deesa	
?	·800	·830	?		?	51	50	?		1·8	1·1	1·5‖		3				2	11	26	17	1	S 49° W		77		648*				Jamnagar	
·641	·668	·658	·656	−·010	91	71	71	78	−4	7·0	8·0	7·5	−0·4		1				5	17	26	9	S 78° W	S 62° W	78	78	537§	556			Belgaum	Deccan.
·670	·641	·558	·623	−·009	78	52	38	56	−4	6·0	7·9	7·0	−0·2	2	3	1				21	8	25	N 81° W	S 86° W	67	70	262*	316			Sholapur	
·707	·634	·567	·646	−·038	85	52	44	60	−10	5·7	5·9	5·8	−1·7							10	46	4	S 86° W	S 86° W	93	78	547*	360			Poona	
·721	·713	·581	·672	−·023	74	48	33	52	−6	4·3	5·7	5·0	−1·6	1	4	1	2		1	4	20	27	N 63° W	N 68° W	74	72	300*	223			Akola	
·619	·637	·507	·587	−·077	71	51	31	51	−14	4·7	5·9	5·3	−1·0		2				2	3	34	19	N 77° W	N 73° W	85	66	293*	253	3·52	1·09	Buldana	
·679	·715	·611	·668	−·046	64	49	34	49	−11	3·4	5·6	4·5	−1·5		2	2	1	1		4	23	27	N 65° W	N 79° W	77	72	307	234			Khandwa	
·618	·702	·607	·652	−·066	62	48	36	49	−11	5·7	7·8	6·8	−0·3	1	4	3			4	17	15	16	N 88° W	N 83° W	60	52	263	240			Nagpur	
·645	·662	·556	·621		61	42	32	45		3·0	6·7	4·9				3		8		26		23	S 79° W		45		106*				Do. (Sanitary Commr.'s Office)	
·667	·699	·658	·675	−·032	74	58	46	59	−6	5·7	7·1	6·4	+0·5	4	2			2		2	32	18	N 75° W	N 84° W	77	70	222*	217			Hyderabad (Deccan).	
·877	·944	·949	·923	−·001	81	74	73	76	−6	6·7	6·9	6·8	−1·0		1			2	8	13	29	7	S 73° W	S 64° W	73	65	273	376			Bombay	West Coast.
·810	·836	·854	·833	−·017	89	77	78	82	−1	7·2	7·1	7·2	+0·1		3				1	19	19	18	N 88° W	S 73° W	75	74	160	128			Karwar	

§ Mean of 28 days.

* 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 daily pressure.	Variation from normal.	Mean reduced to S. L., 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
South India.	Periyakulam		28·882	28·776	·106	28·829			94·4	73·3	21·1	100·2	68·2	32·0	87·3	89·0	82·5		70·1	74·9	74·9	73·3
	Salem		·896	·781	·115	·852	−·010	29·709	98·4	76·6	21·8	105·5	72·8	32·7	89·1	92·6	85·5	+2·8	73·0	76·5	77·5	75·7
	Chitaldroog		27·426	27·334	·092	27·389	+·015	·684	88·2	70·4	17·8	99·5	66·7	32·8	80·3	83·8	78·2	+2·0	67·3	71·4	71·5	70·1
	Bangalore		26·861	26·771	·090	26·827	+·005	·700	86·0	68·2	17·8	95·3	65·2	30·1	78·8	82·0	76·1	+1·9	65·8	70·1	70·4	68·8
	Hassan		·815†	·746‡	·069	·792	+·024	·753‡	81·1‡	66·5†	14·6	92·6	63·4	29·2	76·6†	76·9‡	72·8‡	+1·5	65·0†	69·5†	69·0‡	67·8
	Mysore		27·372	27·286	·086	27·329	+·023	·736	85·8	69·2	16·6	97·6	66·8	30·8	79·5	82·1	76·6	+1·6	67·6	70·8	71·1	69·8
	Madras		29·735	29·648	·124	29·686	−·011	·635	101·5	82·1	19·4	109·8	75·3	34·5	93·6	93·6	89·3	+2·0		78·3	80·5	78·6
	Bellary		28·312	28·196	·116	28·263	−·006	·650	95·8	77·4	18·4	106·1	74·0	32·1	87·2	91·6	84·6	+1·7	68·1	70·4	71·5	70·0
	Waltair		29·417	29·335	·082	29·376		·539	91·6	80·6	11·0	99·1	71·7	27·4	87·6	87·7	85·2		74·5	79·1	80·5	78·0
Hill Station, Baluchistan.	Quetta		24·521	24·453	·068	24·480	+·043		91·4	55·3	36·1	96·9	50·9	46·0	83·1	89·4	72·9	−1·3	45·6	60·6	60·9	55·8
Hill Stations, Northern India.	Leh		19·711	19·624	·087	19·674	+·035		69·7	41·4	28·3	75·6	35·6	40·0	61·1	67·2	54·6	−1·3	35·6	45·1	47·8	42·8
	Srinagar		24·795	24·714	·081	24·748	+·059		79·4	55·7	23·7	87·5	49·0	38·5	69·0	76·9	66·9	−3·6	53·8	66·3	71·6	63·9
	Kailang	10,087	20·911	20·847	·064	20·891	?		70·3	42·8	27·5	74·8	35·5	39·3	61·1	64·7	54·6	−1·0	40·6	49·6	49·5	46·6
	Simla (Ridge)		23·050	22·999	·051	23·018	+·028		77·0	62·0	15·0	83·2	48·7	34·5	71·5	74·5	69·4	+1·5	53·2†	58·4	59·3	57·1
	Chakrata		·234	23·176	·058	·198	+·042		73·9	59·5	14·4	78·2	49·2	29·0	69·8	70·5	66·3	−0·8	53·6†	58·4	58·9	57·0
	Ranikhet		·995	·925	·070	·948	+·011		79·6	63·5	16·1	84·9	52·4	32·5	74·1	75·7	71·1	+0·6	57·4	62·9	63·8	61·4
	Muktesar		22·780	22·722	·058	22·751			75·9	57·3	18·6	81·7	48·0	33·7	68·6	71·5	65·5		53·5	60·3	61·1	58·3
	Katmandu	4,388	25·409	25·320	·089	25·362	?		84·8	66·2	18·6	91·8	59·0	32·8	77·7	80·5	74·5	−0·2	64·8	69·6	71·0	68·5
	Darjeeling		22·935	22·874	·061	22·902	+·033		65·8	?	?	72·0	?	?	62·1	63·9	?	?	55·0	60·5	62·0	59·2
Hill Stations, Central India.	Mount Abu		25·887	25·814	·073	25·855	+·009		88·3	71·3	17·0	100·2	66·8	33·4	80·4	87·0	79·4	+4·2	63·4	67·9	69·1	66·8
	Pachmarhi		26·280	26·182	·098	26·236	+·004		94·0	75·3	18·7	99·2	68·7	30·5	85·2	91·7	83·9	+6·0	68·2	75·1	76·9	73·4
	Chikalda	3,642	·173	·081	·092	·132	+·004		90·7	71·3	19·4	99·6	65·5	34·1	81·6	88·8	80·3	+5·0	65·5	69·5	70·7	68·6
Hill Stations, South India.	Wellington		24·212	24·153	·059	24·183	+·019		73·2	58·6	11·6	81·2	53·2	28·0	69·3	68·2	64·6	+0·8	54·6	60·2	59·9	58·2
	Kodai Kanal		22·808	22·750	·058	22·773			65·2	54·0	11·2	72·3	50·1	22·2	61·4	60·4	58·4		50·5	56·0	55·8	54·1
Extra India.	Aden		29·715‖	29·599‖	·116	29·653	+·058	·676‖	95·3‖	84·6‡	10·7	98·8	79·2	19·6	92·6‖	93·2‖	89·7‖	+1·6	75·5‡	81·1‖	79·7‖	78·8
	Perim		·606	·506	·100	·552	+·075	·682	95·5	84·6	10·9	100·7	82·2	18·5	92·2	92·7	89·4	+0·2	78·0	81·3	81·7	80·3
	Minicoy		·869	·810	·059	·836		·768	87·9			92·9			85·5	85·4				80·0	79·6	
	Zanzibar		30·102†	30·008	·094	30·055	+·020	30·055†	82·0	74·6	7·4	84·6	72·5	12·1	77·8†	81·4	78·2	+0·7	70·6	73·5‡	73·0†	72·4
	Port Victoria (Seychelles)	15	·020	29·941	·079	29·981	+·034	29·919	83·4	76·1	7·3	84·7	71·9	12·8	82·0	82·8	79·6	+0·9	73·0	76·1	76·1	76·1
	Mauritius (Pamplemouses)	181				·960	−·022	30·091				85·8	47·6	38·2			69·4	+0·2				

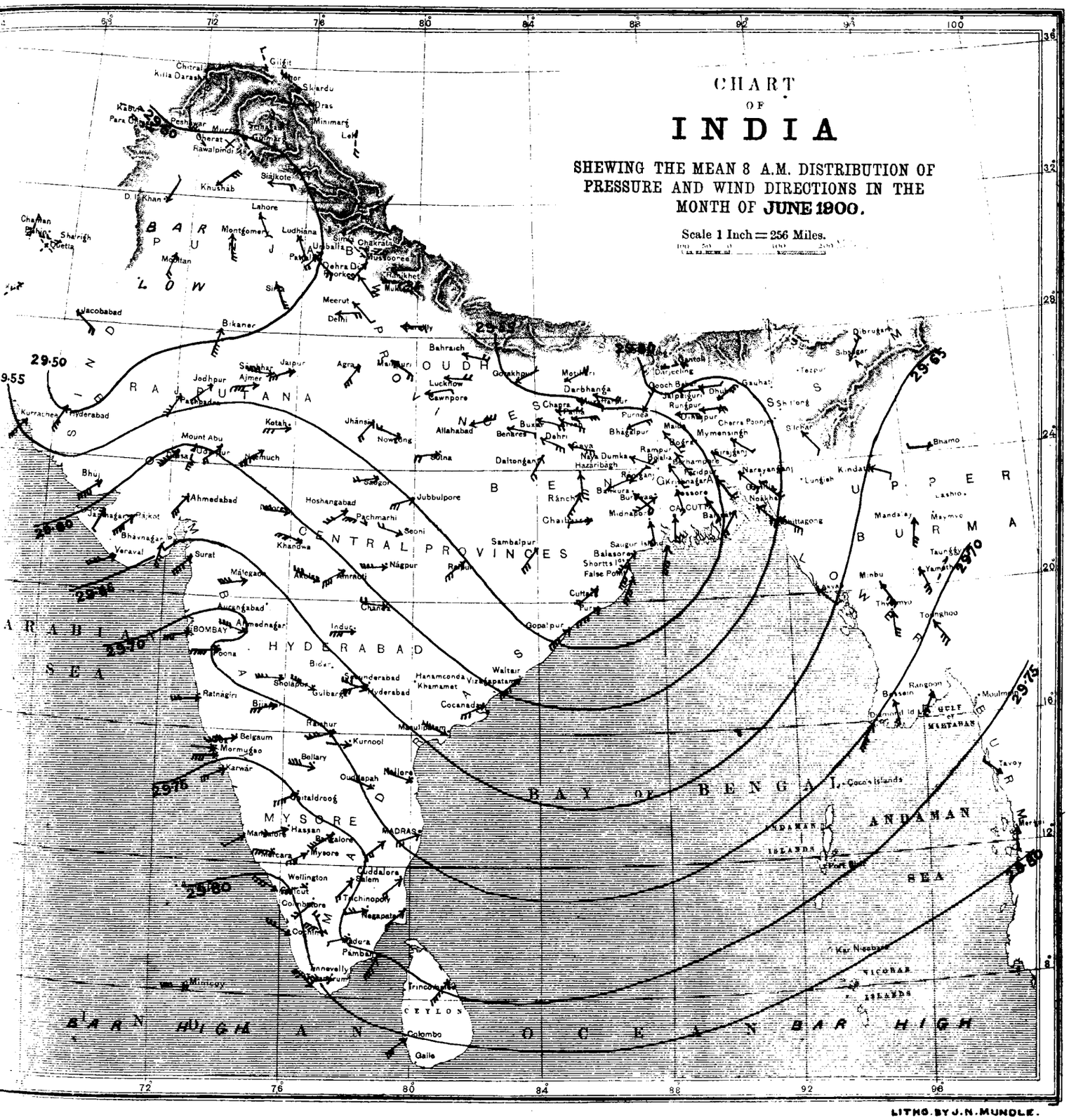
† Mean of 29 days. ‡ Mean of 28 days. § Mean of 25 days.

—*concluded.*

India, Burma, etc., for June 1900—concluded.

Vapour Tension.				Humidity.				Cloud.				Wind Direction. Number of Winds from											Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
																									%	%						
94	·699	·680	·691		84	55	50	63		6·3	6·9	6·6		5	4	7	2	4	7	20	5	6	S 52° W		28		124*				Periyakulam	South India.
85	·756	·750	·757	−·004	84	55	50	63	− 6	5·5	7·0	6·3	+0·3	1	2	1		8	12	21	13	2	S 39° W	S 54° W	60	76	167*	113			Salem	
83	·660	·620	·639	+·005	85	61	58	69	− 2	8·0	8·2	8·1	+0·1							24	29	7	S 77° W	S 76° W	87	77	282*	261			Chitaldroog	
79	·638	·611	·619	0	88	65	59	71	− 2	6·8	6·6	6·7	−0·7		2				3	24	24	7	S 74° W	S 72° W	80	87	293*	209			Bangalore	
01†	·637†	·622‡	·620	+·012	92†	71†	69‡	77	− 2	8·2†	8·4	8·4	+0·1			1				16	31	9	S 84° W	S 80° W	84	82	122*	125			Hassan	
56	·648	·625	·643	+·015	92	65	60	72	− 2	9·3	9·5	9·4	+1·6							23	33	4	S 76° W	S 75° W	90	77	362*	335			Mysore	
	·762	·864	·836	+·021		49	56	61	− 4	5·7	7·5	6·5	+0·2			1	6	10	5	8	25	5	S 56° W	S 36° W	40	61	211	212			Madras	
71	·535	·522	·543	−·107	61	42	36	46	−12	8·2	9·0	8·6	+1·0		2					3	41	14	N 79° W	S 86° W	90	78	315*	251			Bellary	
73	·881	·950	·869		74	68	72	71		6·8	6·5	6·9						2	3	53	2		S 42° W		95		135				Waltair	
10	·294	·238	·247	−·109	48	26	17	30	−10	0·2	1·0	0·6	−0·5	32	2						15	11	N 67° W	N 75° W	42	39	36*	84			Quetta	Hill Station, Baluchistan.
0	·166	·167	·164	−·008	61	31	25	39	+ 1	3·7	5·3	4·5	−0·3		2	3	4	1	7	11	25	7	S 78° W	S 81° W	52	31	75	57			Leh	Northern India.
00	·618	·729	·582	+·025	88	86	78	84	+11	2·7	3·9	3·3	−0·5	18	5	8	5	5	4	1	5	9	N 13° E	S 69° E	15	5	98*	86			Srinagar	
35	·256	·224	·238	−·011	85	48	38	57	+ 2	5·5	6·8	5·2	−0·1			1	1	1	9	29	13	6	S 54° W	S 63° W	72	65	50	49	1·51	0·82	Kailang	
15†	·355	·352	·340	−·068	57†	47	42	48	−15	1·7	3·5	2·6	−3·3	5	17	4	3	1	9	7	5	9	N 40° W	N 12° W	25	18	110	97			Simla (Ridge)	
49†	·376	·383	·369	−·047	68†	53	52	58	− 9	2·5	4·4	3·5	−1·6	2	1	4	1	12	32	4		3	S 11° E	S 73° W	64	52	290	153			Chakrata	
13	·460	·472	·448	−·024	71	55	54	60	− 6	2·9	3·6	3·3	−2·2	11	1		1	2	1	10	21	13	N 89° W	S 67° W	59	46	122*	84			Ranikhet	
75	·440	·435	·417		79	63	57	66		3·9	4·1	4·0		1	2	6		13	3	10	3	22	N 78° W		22	¶	125*				Muktesar	
08	·637	·656	·634	+·004	93	67	63	74	− 1	5·6	6·6	6·1	−0·1			5	16	6	1	8	22	2	S 42° W	N 86° W	13	23	33	31	8·04	1·60	Katmandu	Hill Stations, Northern India.
?	·518	·540	?	?	?	92	91	?	?	7·2‡	7·1‡	7·2	−1·6	2		8	10	12	3	15	4	6	S 24° E	S 9° W	22	8	85*	124			Darjeeling	
99	·543	·505	·516	−·057	68	55	40	54	−14	1·8	0·3	1·1	−4·1		2	1		1	17	34	2	3	S 36° W	S 49° W	76	67	325*	254			Mount Abu	Hill Stations, Central India.
12	·754	·755	·707	+·107	71	63	52	62	− 4	4·8	6·3	5·6	−1·0	6	12	1		2		3	15	21	N 51° W	N 80° W	63	60	283*	206			Pachmarhi	
61	·582	·543	·563	−·036	74	55	42	57	−15	4·1	5·6	4·9	−2·0	15	21	2				1	1	20	N 22° W	N 45° W	61	60	290*	234	4·91	1·50	Chikalda	
89	·432	·436	·419	−·025	79	62	63	68	− 7	7·1	8·0	7·6	+0·1	3	9	3		3	2	28	5	3	S 65° W	S 71° W	42	52	162	111			Wellington**	Hill Stations, South India.
34	·398	·402	·378		80	74	77	77		7·5	7·9	7·7			2	1			1	6	5	45	N 54° W		84		438				Kodai Kanal	
66‡	·914‖	·836‖	·839	−·007	65‡	60‖	54‖	60	+ 1	2·4‖	3·0‖	2·7	+1·4			5	5	7	19	18			S 1° E	S	61	55	¶ 210	216			Aden	Extra India.
75	·931	·943	·916	+·072	73	62	62	66	+ 5	0·1	0·7	0·4	−1·4	1	2	3	14	8	4	9	10	9	S 9° W	N 39° W	10	42	340*	347			Perim	
	·955	·803				78	77			6·0	6·8	6·4								12	38	10	S 88° W		90		435*				Minicoy	
98	·773†	·679	·717	+·007	81	81‡	65†	76	0	5·7†	5·4	5·6	+1·1				1	20	29	8	1		S 10° E	S 4° E	83	86	184*	216			Zanzibar	
76	·824	·814	·804	+·054	86	75	72	78	+ 2	4·7	4·4	4·6	−2·5	1			3	41	13	1	1		S 35° E	S 21° E	87	79	230	278	2·08	1·12	Port Victoria (Seychelles).	
			·548					75	+ 1																		221	271	1·33	0·82	Mauritius (Pamplemousses).	

‖ Mean of 27 days. ¶ Mean of 26½ days. ** Wind Variable 4. * Corrected.



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 ship 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 " " "

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.

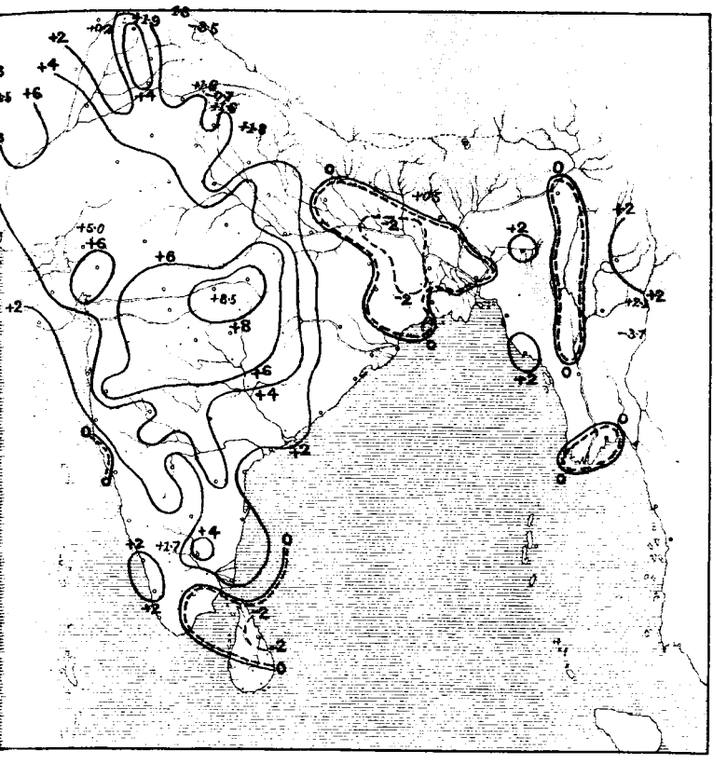
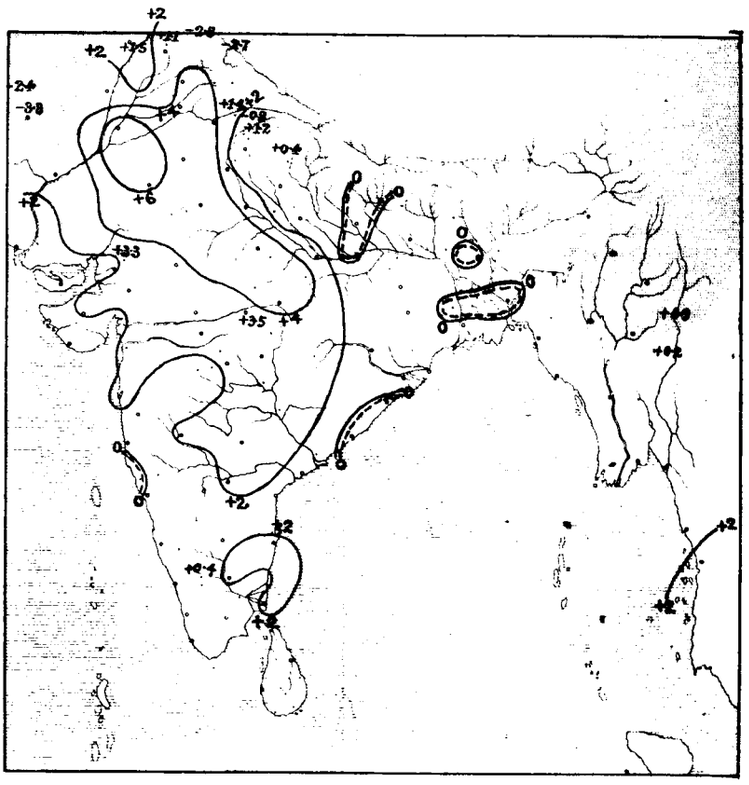


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



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 the 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 the 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.

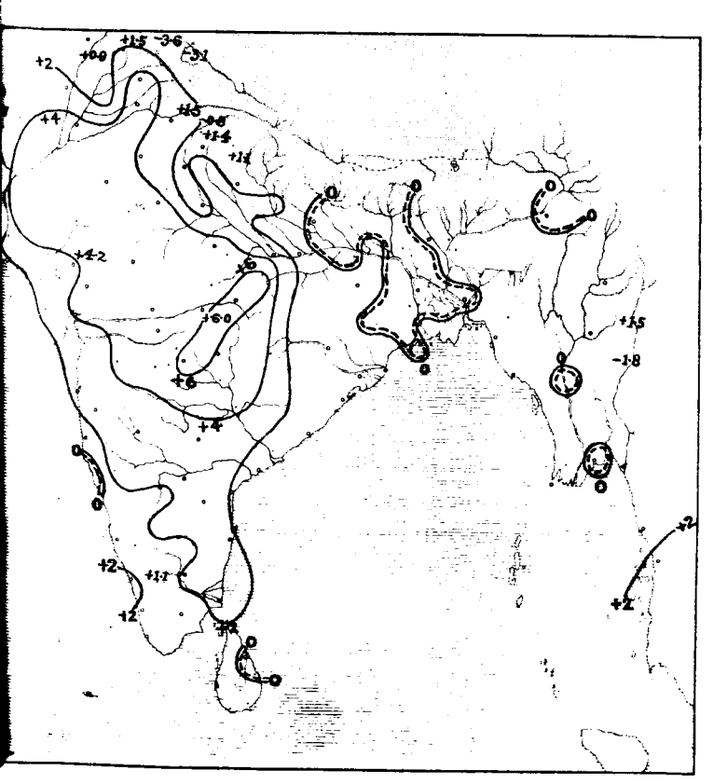
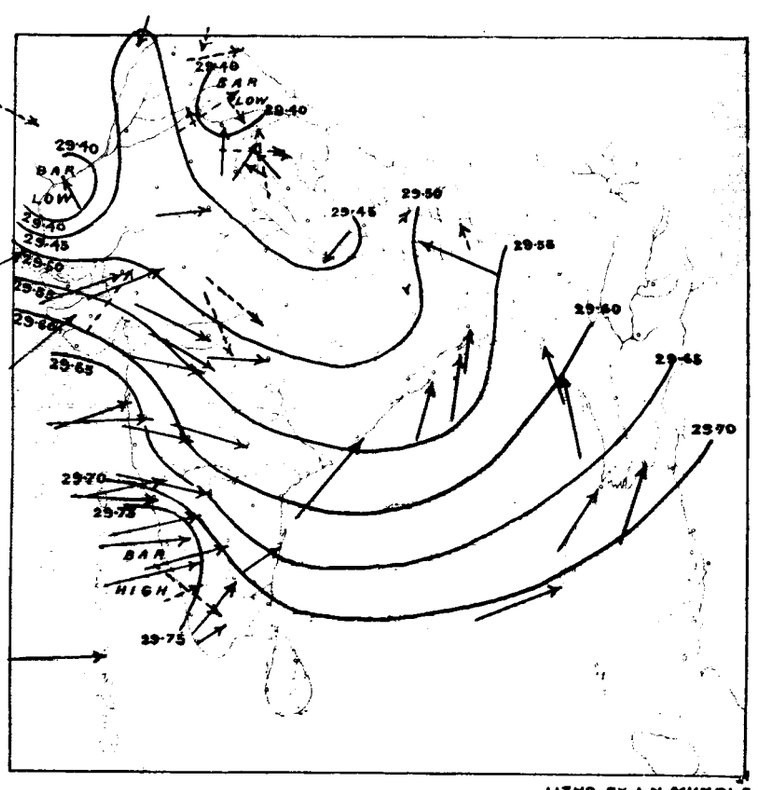


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF JUNE 1900.



LITHO. BY J. N. MUNDLE.

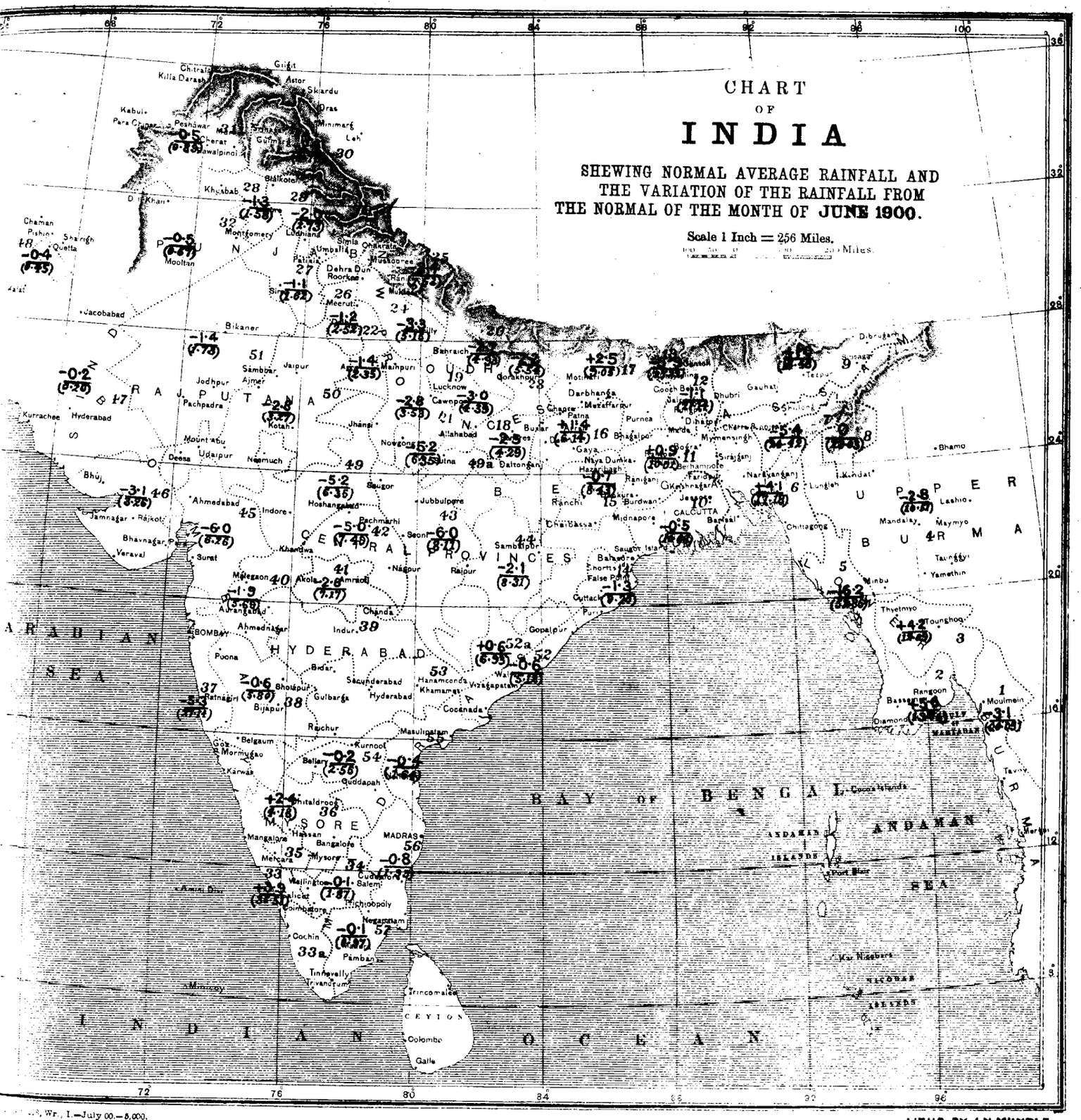
Explanation.

ontinuous lines indicate that the mean daily temperature of month as in excess by amounts indicated by the attached numbers. Broken dotted lines that it was in defect by the amounts indicated by the tached numbers. Double lines are the lines of no variation, the broken e facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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

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 [illegible] used in the preparation of this Chart are the rainfall returns of all the observatories in India (182 in number), except those at the Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of [illegible]ch from those it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



...S, Wr., I.—July 00.—5,000.

LITHO. BY J. M. MUNDLE.

Explanation.

The Chart gives the variations of the rainfall of the mouth (to tenths of an inch) from the normal over the whole of India and Burma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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	17. North Bihar	33. Malabar	48. Baluchistan Hills
2. Lower Burma Deltaic	18. North Western Provinces East	33a. Travancore	49. Central India, East
3. Central do.	19. South Oudh	34. Madras, South	49a. Do. do.
4. Upper do.	20. North do.	35. Coorg	50. Rajputana East, Central India West
5. Arakan	21. North Western Provinces, Central	36. Mysore	51. West Rajputana
6. East Bengal	22. Do. do. West	37. Konkan	52. Madras, East Coast, North
7. Assam, Surma	23. Do. do. East Submontane	38. Bombay Deccan	52a. Do. do. do. (a)
8. Do. Hills	24. Do. do. West do.	39. Hyderabad, North	53. Hyderabad, South
9. Do. Brahmaputra	25. Do. do. Hills	40. Khandesh	54. Madras, Central
10. Deltaic Bengal	26. South East Punjab	41. Berar	55. Madras, East Coast, Central
11. Central do.	27. South do.	42. Central Provinces West	56. Do. East Coast, South
12. North do.	28. Central do.	43. Do. Central	57. Madras, South
13. Bengal Hills	29. Punjab, Submontane	44. Do. East	
14. Orissa	30. Do. Hills	45. Gujarat	
15. Chota Nagpur	31. North Punjab	46. Kathiawar	
16. South Bihar	32. West do.	47. Sind	

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JULY 1900.

INTRODUCTION.

THIS review of the weather in India during the month of July 1900 is based on observations taken daily at 8 A.M. at 219 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, the weekly rainfall telegrams received during the month from District Officers throughout India, 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 July, 1900.

The principal feature in the weather of the month under review, was the great delay in the complete establishment of the Arabian Sea monsoon current over the northern divisions of the area dependent for its rainfall on the Bombay monsoon. Two strong advances of this current took place during the month. The first occurred between the 10th and 16th and carried rain into the interior, into Gujarat, Rajputana and the South-East Punjab, but this advance was not maintained and on the 17th and 18th the rains retreated again. After ten days of comparatively fine weather, however, heavy rain again advanced northward along the West Coast, and on the 28th and 29th heavy rain extended over the whole area ordinarily dominated by the Bombay current and under conditions which promised its continuance.

At the commencement of the month the trough of low pressure lay close to the hills in Northern India, dry westerly winds prevailed over a large part of the country, and the rainfall was restricted to moderate showers over Burma and Assam and to light to moderate showers over the greater part of the Peninsula. Consequently the mean temperature was very generally excessive, as

is shown by the following data for the 24 hours ending at 8 A.M. on the 1st :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st July.	Mean minimum temperature, 1st July.	Mean daily temperature, 1st July.
	°	°	°
Burma	+ 0·7	+0·6	+ 0·7
Assam	— 3·6	+0·1	— 1·8
Bengal	— 0·4	+2·2	+ 0·9
Orissa	+ 8·0	+4·9	+ 6·5
Bihar	+ 2·4	+2·5	+ 2·5
Chota Nagpur	+ 7·0	+3·6	+ 5·3
North-Western Provinces and Oudh	+11·7	+8·6	+10·2
Punjab	+11·8	+7·5	+ 9·7
Sind	+ 5·4	+2·2	+ 3·8
Rajputana	+10·6	+7·9	+ 9·3
Gujarat	+ 6·2	+2·5	+ 4·4
Central India	+13·9	+8·2	+11·1
Central Provinces	+13·1	+7·0	+10·1
Berar	+13·2	+4·9	+ 9·1
West Coast	+ 0·3	+0·9	+ 0·6
Bombay Deccan	+ 2·8	+2·3	+ 2·6
Mysore	— 0·4	+1·8	+ 0·7
Madras Coast	+ 4·7	+1·4	+ 3·1
Madras Deccan	+ 2·8	+0·2	+ 1·5
South India	+ 0·6	+1·4	+ 1·0

These conditions, with some modifications due to the extension of rain over North-East India, continued, with comparatively little change, on the West Coast till the 10th or 11th and on the Bay side until the 12th or 13th. Very high maximum temperatures were recorded, during this dry period in the north-west. This is shown by the following data :—

Station.	Highest maximum temperature recorded in July 1900.	Date on which recorded.	Highest maximum temperature recorded in July previous to 1900.	Year in which recorded.
	°		°	
Jhansi	113·9	1st July.	113·2	1876
Agra	112·5	1st	111·0	1891
Allahabad	111·6	1st & 3rd	113·4	1876
Benares	110·3	3rd	116·0	1873
Mainpuri	109·2	3rd	108·3	1897
Cawnpore	109·0	2nd & 3rd	109·1	1891
Meerut	108·6	3rd	110·0	1876
Roorkee	107·2	2nd	113·2	1876
Sialkot	118·5	2nd & 3rd	119·5	1878
D. I. Khan	118·2	3rd	120·5	1891, & 1892
Peshawar	118·0	2nd	117·0	1892
Khushab	117·9	2nd	119·1	1891
Montgomery	117·0	3rd	120·4	1891
Rawalpindi	117·0	2nd & 3rd	115·0	1897
Lahore	116·6	2nd & 3rd	117·8	1891
Ludhiana	115·4	3rd	117·8	1881
Sirsa	115·3	4th	118·4	1891
Umballa	111·9	2nd	108·0	1897
Jacobabad	123·0	2nd	120·0	1899
Bikaner	112·9	2nd	114·3	1891
Kotah	112·6	2nd	108·1	1897
Jaipur	112·2	2nd	111·3	1891
Sambhar	111·0	2nd	110·0	1891
Nowgong	110·5	1st & 2nd	108·8	1878
Sutna	108·6	1st	106·5	1876
Ahmedabad	106·3	3rd	102·3	1897
Rajkot	104·9	2nd	103·9	1892
Bhavnagar Para	104·1	4th	101·1	1899

On the 10th there occurred a marked extension of rain which was carried through the Central Provinces and Central India into the west of the North-West Provinces and the east and submontane districts of the Punjab. This extension of rain into North-West India was marked by a considerable fall of temperature over the Punjab. This is shown by the following comparative temperature data for the Punjab from the 9th to the 12th :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	9th July.	10th July.	11th July.	12th July.
	°	°	°	°
Punjab	+4·9	+3·0	+0·2	—0·8

This rainfall continued over Western, Central and North-Western India until the 17th or 18th.

During this period the mean temperature fell generally more or less below the normal over the central and north-western districts of India, as is shown below:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF									
	9th July.	10th July.	11th July.	12th July	13th July.	14th July.	15th July.	16th July.	17th July.	18th July.
	°	°	°	°	°	°	°	°	°	°
N.-W. Provinces and Oudh.	+4·2	+4·7	+1·5	+1·3	−1·0	−1·3	−0·9	−2·5	−1·8	−1·6
Punjab . .	+4·9	+3·0	+0·2	−0·8	−0·4	−3·9	−3·9	−3·2	−1·6	0·5
Rajputana . .	+5·6	+6·6	+3·7	+1·0	+1·6	−0·6	−0·2	+2·4	+4·3	+5·2
Central India, East	−0·7	−1·7	−2·5	−1·6	+1·2	−0·2	−1·3	−0·8	+0·2	+0·7
Central Provinces.	+5·8	+7·9	+3·1	−3·2	−2·4	+0·2	−1·7	+0·3	−0·3	−0·4

This burst of rain did not, however, extend to any considerable extent into Kathiawar, Gujarat, the west of Rajputana, the west of Central India and Sind, and the mean temperature was more or less steadily excessive over that area from the 10th to the 18th. This is shown below:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF								
	10th July.	11th July.	12th July.	13th July.	14th July.	15th July.	16th July.	17th July.	18th July.
	°	°	°	°	°	°	°	°	°
Sind. . .	+1·6	+1·3	+2·5	+5·1	+5·8	+3·9	+3·8	+2·3	−0·5
Gujarat and Kathiawar.	+4·3	+4·2	+3·6	+0·5	+0·6	+3·0	+3·6	+4·3	+4·4
West Rajputana	+5·3	+5·4	+6·4	+6·9	+3·3	+2·4	+4·3	+5·1	+4·3
West of Central India.	+4·5	−1·5	−6·0	−3·0	−4·0	−2·8	−0·5	+2·7	+5·3

In the meantime on the opposite side of India moderate daily rain was received in Bengal, Assam and Burma from the 1st to the 13th. On the 12th the barometer was falling briskly over the north of the Bay, and on the 13th a small cyclonic storm was shown over the head of the Bay. This storm advanced north-westward into the western districts of the North-Western Provinces where it filled up during the 15th. It occasioned a moderate burst of rain over Bengal and the Gangetic Plain, as is shown by the following table which gives, day by day, the principal rainfall amounts in the path of the storm:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BALASORE . . .	Chandbali . . .	13th July .	13·40
" . . .	Akhyapada . . .	" " .	10·09
CUTTACK . . .	Pal Lahara . . .	" " .	10·05
" . . .	Jagpur	" " .	8·15
" . . .	False Point . . .	" " .	6·00
PALAMAU . . .	Panki	14th " .	4·14
MUZAFFARNAGAR . .	Bhainswal . . .	15th " .	9·90
" . .	Khandhla . . .	" " .	7·00
MORADABAD . .	Hasanpur . . .	" " .	5·50
FARUKHABAD . .	Thatia Tirwa . .	" " .	5·00
HARDOI . . .	Bilgram . . .	" " .	4·60

This rainfall occasioned a fall of temperature over North-East India and the Gangetic Plain. The following gives comparative temperature data for the Assam, Bengal, North-Western Provinces and Central Provinces divisions for the period July 12th to 15th:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF			
	12th July.	13th July.	14th July.	15th July.
	°	°	°	°
Assam	+0·4	+0·1	+0·3	−1·7
Bengal	+1·7	+1·0	−0·2	−0·9
Bihar.	+1·8	+1·2	+0·6	−0·2
Orissa	+0·8	−1·5	−3·4	−1·2
Chota Nagpur	+1·2	+1·3	−0·4	−1·0
N.-W. Provinces and Oudh .	+1·3	−1·0	−1·3	−0·9
Central Provinces . . .	−1·6	+1·2	−0·2	−1·3

After the dispersion or filling up of the storm pressure increased slightly to briskly and the distribution became such as to favour a strong flow of southerly winds from the Bay into North-East India. The following gives the

principal falls of rain over Bengal and Assam from the 16th to the 18th :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KHASI AND JAINTIA HILLS.	Cherra Punji	16th July	7·14
NOAKHALI	Hatya	" "	6·70
CHITTAGONG	Cox's Bazar	" "	6·47
JALPAIGURI	Falakata	" "	5·71
CHITTAGONG	Mirsarai	" "	5·52
NOAKHALI	Harishpur	" "	5·00
PURNEA	Gondwara	" "	5·00
KHASI AND JAINTIA HILLS.	Cherra Punji	17th "	11·90
RANGPUR	Kurigaon	" "	7·89
RANGPUR	Bagdogra	" "	6·73
RANGPUR	Rangpur	" "	6·12
PATNA	Patna	" "	6·12
DARJEELING	Baxa	" "	5·12
SHAHABAD	Arrah	18th "	9·51
MURSHIDABAD	Berhampore	" "	8·70
KHASI AND JAINTIA HILLS.	Cherra Punji	" "	7·82
MURSHIDABAD	Lalbagh	" "	6·35
MONGHYR	Begusarai	" "	5·85
CHITTAGONG	Cox's Bazar	" "	5·41
RANGPUR	Kurigaon	" "	5·37
"	Sunderganj	" "	5·26
BOGRA	Nowkhilla	" "	5·25

On the 17th the monsoon current along the West Coast exhibited symptoms of returning weakness, and on the 18th the rainfall practically ceased over the Konkan, Khandesh, Gujarat, Rajputana and the Punjab. A partial break in the rains prevailed over the above area until the 25th or 26th, and during this period the mean temperature exceeded the normal over nearly the whole of Central and North-West India, the excess having been greatest and large over Gujarat, the west of Central India and Rajputana. This is shown in the following table which gives comparative temperature data from the 18th to the 26th for Central and North-West India :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF								
	18th July.	19th July.	20th July.	21st July.	22nd July.	23rd July.	24th July.	25th July.	26th July.
	°	°	°	°	°	°	°	°	°
Central India	+2·1	+2·0	+4·0	+5·4	+7·1	+6·8	+6·3	+4·2	+4·4
Central Provinces	+0·7	+2·2	+3·4	+6·4	+3·0	+3·0	+2·7	+3·3	+6·1
Rajputana	+5·2	+5·1	+5·9	+8·2	+6·4	+7·2	+8·6	+8·7	+2·8
North-Western Provinces and Oudh.	−1·6	−1·1	−2·6	+0·4	+4·5	+3·2	+2·9	+0·5	+0·8
Punjab	−0·5	+0·5	−0·8	+1·5	+4·2	+5·1	+4·7	+4·0	+2·9
Sind	−0·5	+0·7	+0·7	+0·6	+1·5	+0·7	+1·6	+2·2	+3·6
Gujarat	+4·4	+4·6	+5·0	+5·1	+4·9	+5·7	+6·4	+6·4	+6·9

During this break in the rains very dry hot weather prevailed over North-West India, and the following high maximum temperatures were recorded :—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from *normal* of date.
		°	°	°
18th July	Ahmedabad	101·8	89·5	+12·3
" "	Rajkot	98·7	89·0	+ 9·7
19th "	Ahmedabad	102·3	89·2	+13·1
" "	Rajkot	98·4	89·3	+ 9·1
20th "	Ahmedabad	101·8	89·1	+12·7
" "	Deesa	101·1	89·6	+11·5
" "	Rajkot	100·4	89·2	+11·2
21st "	Bikaner	103·6	89·9	+13·7
" "	Khandwa	98·7	85·4	+13·3
" "	Ahmedabad	101·3	88·6	+12·7
22nd "	Jhansi	102·3	88·9	+13·4
" "	Agra	104·0	92·4	+11·6
" "	Ahmedabad	100·3	88·7	+11·6
23rd "	Ahmedabad	101·3	88·8	+12·5
" "	Indore	93·8	82·2	+11·6
" "	Jhansi	100·3	88·7	+11·6
24th "	Deesa	102·6	89·2	+13·4
" "	Neemuch	97·5	84·7	+12·8
" "	Ahmedabad	101·3	88·8	+12·5
25th "	Deesa	104·1	88·9	+15·2
" "	Jaipur	103·7	89·2	+14·5
" "	Ahmedabad	103·3	88·8	+14·5
" "	Sambhar	103·5	89·6	+13·9
26th "	Rajkot	100·9	88·2	+12·7
" "	Bhuj	100·3	88·0	+12·3
" "	Khushab	114·3	102·2	+12·1

In North-East India moderate general rain continued until the 21st in the Gangetic Plain and till the 22nd in Bengal. During this period pressure had been increasing steadily in the north-east, and on the 23rd the barometer was much higher than usual over Bengal. The following shows the stations at which the variation from the normal exceeded one-fifth of an inch:—

STATION.	Variation from normal of 8 A.M. pressure of 23rd July.
	"
Balasore	+·233
Saugor Island	+·217
Calcutta	+·216
Burdwan	+·216
Barisal	+·215
Chaibassa	+·210
Patna	+·205
Jessore	+·204
Darbhanga	+·202
Berhampore	+·201

On this day the break in the rains which was prevailing over North-West India extended partially into Bengal and the rains remained light until the 26th in this region. As a consequence there occurred a marked rise of temperature over North-East India. This is shown below:—

PROVINCE OR DIVISION.	MEAN TEMPERATURE CHANGE IN 24 HOURS PRECEDING 8 A.M. OF			
	23rd July.	24th July.	25th July.	26th July.
	°	°	°	°
Assam	+0·9	−1·1	+3·4	+0·7
Bengal	+0·1	+1·8	+2·1	+0·7
Orissa	+0·4	−0·4	+1·4	−0·1
Bihar	−0·6	−1·2	+4·2	+2·3
Chota Nagpur	+0·1	−1·0	+1·9	+1·6

On the 26th the winds began to increase both in Ceylon and over the south of the Bay, and an advance of humid winds from the south commenced. This advance extended quickly northward, and the rainfall which had been very scanty over the whole of India on the 25th and 26th extended quickly over the whole of India before the end of the month. The rainfall was very heavy over North Bombay and the major part of the total rainfall of the month occurred over this region during the last week. The following table gives rainfall data for the Gujarat and Kathiawar divisions, showing the total rainfall for the first twenty-six days of the month and for the last five days:—

PROVINCE OR DIVISION.	Total rainfall of period, 1st to 26th July.	Total rainfall of period 27th to 31st July.
	Inches.	Inches.
Gujarat	4·00	5·06
Gujarat, Kathiawar and Cutch States	1·31	4·18

This heavy burst of rain occasioned a rapid fall of temperature over the Peninsula and North Bombay. The following gives comparative temperature data from the 26th to the 31st in illustration:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	26th July.	27th July.	28th July.	29th July.	30th July.	31st July.
	°	°	°	°	°	°
Central Provinces	+6·1	+4·0	+2·4	+3·8	+3·7	+2·1
Berar	+7·7	+7·4	+2·0	+3·5	+1·8	+1·1
West Coast	+1·0	0	−0·8	−0·3	+0·7	+0·7
Bombay Deccan	+4·7	+4·6	+3·0	+0·8	+1·2	−1·5
Gujarat	+6·9	+7·6	+3·5	+1·0	−0·7	−1·7
Mysore	+2·8	+0·8	−1·4	+0·5	0	+0·9
Madras Deccan	+2·2	−0·1	+1·4	+0·5	+0·4	−5·4
Madras Coast	−0·2	−2·0	−1·3	+1·0	−0·3	−3·2
South India	−0·5	−2·5	−2·5	−1·3	−0·2	−0·4

In North-East India the rainfall was less heavy than in Western India, and the reduction of temperature was less marked. The following gives temperature variation data for the different divisions of Northern India from the 26th to the 31st:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M OF					
	26th July.	27th July.	28th July.	29th July.	30th July.	31st July.
	°	°	°	°	°	°
Bengal	+2·1	−1·4	+0·3	+1·6	+2·1	+1·5
Bihar	+2·4	+2·1	+1·2	+0·6	−2·3	+1·7
Chota Nagpur	+3·9	+1·2	+0·9	+3·3	+1·8	+1·1
Orissa	+2·4	+1·9	−0·1	+2·4	+3·2	+1·0
North-Western Provinces and Oudh	+0·8	+3·5	−0·2	+1·7	+0·2	−0·5
Punjab	+2·9	+5·3	+5·0	+0·8	+3·3	+1·9
Rajputana	+2·8	+6·7	+5·6	+3·9	+4·5	+4·1
Central India	+4·4	+4·8	+3·3	+4·3	+4·4	+2·7

On the last two days of the month a fresh cyclonic storm was developing over the head of the Bay, but

heavy rain had only commenced at the coast stations around the north-west of the Bay on the 31st, and the principal effects of the storm were manifested in the succeeding month.

Pressure.—The mean pressure of the Indian land area for the month was only ·007″ above the normal, and was hence approximately normal. Relatively to this general condition, pressure was in slight local defect over the Punjab, Upper Sind, the western and the central districts of the Gangetic Plain, as well as over the southern half of the Peninsula and Tenasserim and Lower Burma. Over the remainder of India pressure was in slight excess. Pressure was in slight excess at the hill stations in Baluchistan and Northern India, normal at the central hill stations, and in slight defect at Wellington in the south. The vertical pressure anomalies were hence positive in the north and very slightly negative in the centre and south.

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

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A.M. pressure of July 1900.	Pressure anomaly, July 1900.
	″	″
Burma Coast and Bay Islands	—·001	—·008
Burma Inland	+·012	+·005
Assam	+·015	+·008
Bengal and Orissa	+·022	+·015
Gangetic Plain and Chota Nagpur	+·011	+·004
Upper Sub-Himalayas	—·001	—·008
Indus Valley and North-West Rajputana	—·007	—·014
East Rajputana, Central India and Gujarat	+·019	+·012
Deccan	+·010	+·003
West Coast	—·003	—·010
South India	—·003	—·010

Temperature.—The mean temperature conditions were, as is usual in July, determined by the rainfall distribution. General heavy rain held off from a large part of Western, Central and North-West India until the last week of the month, so that, except in the north-east of India, the general temperature was in excess of the normal.

The mean maximum or day temperature of the month was above the normal over the whole of the Indian area with the exception of part of North-East India and the extreme south of the Peninsula. In the north-east the deficiency was small except at Dhubri (—3°·4) and Sibsagar (—2°·8) and in the south, except at Trincomalee (—3°·3). The excess was considerable to large over North-West and Central India and part of the north of the Deccan. Temperature in this area was most largely in excess at Ahmedabad (+9°·1), Deesa (+8°·2), Rajkot and Jaipur (each +6°·8) and Hoshangabad and Sambhar (each +6°·7). These stations hence defined the area of greatest excess of day temperature during the month.

The mean night temperature of the month was in trifling defect of the normal over Bihar, Central and North Bengal and part of Assam and Upper Burma. With a few local exceptions of no importance the mean night temperature was in excess of the average over the whole of the remainder of India. The excess was generally somewhat smaller in amount than that of the day temperature, but was also considerable to large over North-West India and part of Central India and of the Deccan. The excess was absolutely greatest at Bikaner (+5°·5), Mooltan (+5°·0) and at Sirsa (+4°·3).

The mean temperature of the month was in slight defect over North-East India. The deficiency was less than 1° in amount except at Dhubri (—2°·3), Sibsagar (—1°·3), Mymensingh (—1°·0) and Purnea (—1°·0). Over the whole of the remainder of India the mean temperature was in excess. The excess was greatest and considerable to large over the South Punjab, Rajputana, the west of Central India and Gujarat. The excess in this area was 5° or more in amount at Bikaner (+5°·6), Jaipur and Sambhar (each +5°·4), Jhansi (+5°·1), Ahmedabad (+6°·4) and Deesa (+5°·9). These stations hence defined the area of greatest excess of the mean temperature of the month.

The mean temperature of the hill stations of Cherat and Mount Abu was considerably above the normal, of the Baluchistan hills slightly above the normal, and of the remaining hill stations about normal.

The following table gives variation data of the month for the eleven meteorological provinces:—

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, July 1900.	Mean minimum temperature, July 1900.	Mean daily temperature, July 1900.
	°	°	°
Burma Coast and Bay Islands	+0·9	+0·8	+0·9
Burma Inland	+0·6	+0·4	+0·5
Assam	—2·2	—0·3	—1·3
Bengal and Orissa	+0·2	+0·2	+0·2
Gangetic Plain and Chota Nagpur.	+1·6	+0·9	+1·2
Upper Sub-Himalayas	+1·3	+1·4	+1·4
Indus Valley and North-West Rajputana.	+3·7	+2·9	+3·3
East Rajputana, Central India and Gujarat.	+5·9	+3·0	+4·5
Deccan	+3·1	+1·5	+2·3
West Coast	+0·9	+1·3	+1·1
South India	+0·8	+0·8	+0·8

Winds.—The monsoon current was apparently stronger than usual over the Bay, and both at Port Blair and Diamond Island the velocity was above the average. The monsoon current was more easterly than usual in Bengal and more southerly than usual in Orissa, while in Upper India the directions were fairly normal. The velocity was low in Orissa and West Bengal, but was greater than usual in Upper India and Rajputana.

The Bombay current was, on the whole, lighter than usual both on the coast and inland over the Peninsula, but in the Central Provinces and Berar as well as in Sind the velocity exceeded the normal.

Humidity.—Humidity conditions were about normal over the Peninsula, Burma and North-East India, except in the case of Mysore where the air was damper than usual. A considerable deficiency was, however, shown over North-West India and part of Central India. The deficiency was most marked in Rajputana (Deesa —16 and Jaipur —12). On the hills the variations from the normal of the humidity conditions were irregular, the most marked feature having been a moderate excess in Kashmir.

The following table gives variation data for nine meteorological provinces:—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY	
	Average actual, July 1900.	Variation of actual from normal, July 1900.	Average actual, July 1900.	Variation of actual from normal, July 1900.
	"	"	%	
Burma Coast and Bay Islands	·906	+·019	86	— 1
Bengal and Orissa	·971	+·019	86	— 1
Gangetic Plain and Chota Nagpur	·894	—·016	79	— 4
Upper Sub-Himalayas	·841	—·016	70	— 3
Indus Valley and North-West Rajputana.	·852	+·028	58	— 3
East Rajputana, Central India and Gujarat.	·775	—·058	60	—14
Deccan	·742	+·015	76	— 2
West Coast	·883	+·013	84	— 3
South India	·672	+·011	72	— 1

Cloud.—The variations of the cloud amount from the normal were roughly similar to those of humidity. Cloud, on the mean of the month, was in slight excess over the Gangetic Plain, the greater part of Bengal, the Bay area and nearly the whole of the Peninsula. The excess was moderate over parts of Mysore and of the Carnatic, but was small elsewhere. In North-West India, on the other hand, the cloud amount was less than usual. The deficiency was considerable at Kurrachee (—3·1), Deesa (—1·9), Jaipur (—2·4) and Lahore (—2·0), and the area of greatest deficiency of cloud was defined by these stations. At the hill stations the variations of the mean cloud amount from the normal were irregular.

The following gives variation data for nine meteorological provinces:—

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, July 1900.	Variation of actual from normal, July 1900.
Burma Coast and Bay Islands	8·5	+0·1
Bengal and Orissa	8·6	+0·4
Gangetic Plain and Chota Nagpur	8·2	+0·4
Upper Sub-Himalayas	5·7	—0·5
Indus Valley and North-West Rajputana	2·3	—1·7
East Rajputana, Central India and Gujarat	5·6	—2·2
Deccan	8·5	+0·1
West Coast	8·9	+0·4
South India	8·8	+0·9

Rainfall.—The Arabian Sea current was slightly weaker than usual during the first ten days of the month and the rainfall during that period was restricted to light to moderate showers along the coast and light showers in the Deccan, the Central Provinces, Berar and the east of the Central India States. During this period no general rain was received over the northern districts of the Bombay Presidency. On the 10th or 11th the rainfall increased along the coast and extended inland into the Deccan and as far north as the south-east of the Punjab and the west of the North-Western Provinces. This rainfall continued until the 16th, and was moderately heavy on that date in Upper India. The monsoon current after the 16th decreased in strength and a partial break occurred from the 19th to the 26th. Rain became heavy in Malabar on the 25th and 26th, and, extending rapidly northward, reached all parts of the area which depends for its rainfall on the Bombay current by the end of the month.

Burma, Assam and Bengal received daily moderate rain from the 1st to the 13th. During the 12th and 13th a slight cyclonic storm was formed over the north of the Bay. This storm crossed the Orissa coast during the 13th and advanced north-westwards into the western districts of the North-Western Provinces where it filled up on the 15th or 16th. It occasioned a strong inflow of monsoon winds from the Bay into North-East India and heavy falls

of rain occurred at several places within the path of the storm. After the storm dispersed the wind returned to south and south-south-west over North-East India and rain fell daily till the 21st in the Gangetic Plain and till the 22nd in Bengal. A partial break set in at this time over North-East India and continued until the 26th when, with an advance of humid winds from the southward, more general rain set in all over the country. On the 29th and 30th a storm formed over the Bay, and on the 31st advanced to the Orissa Coast occasioning heavy rain around the north-west of the Bay. The rainfall of the month was hence somewhat irregularly distributed as regards time as the first three weeks of the month over a large part of the country were unusually dry and the last week unusually wet. The total rainfall of the month was generally in excess over the Peninsula and North-East India and generally in defect over Central and North-West India and Burma. The deficiency was very large—more than 50%—in the West Punjab, Gujarat, Kathiawar, Sind and Baluchistan Hills.

The following table gives the rainfall data of the month for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	RAINFALL.			
	Mean actual for July 1900.	Mean normal for July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	28·07	31·57	−3·50	−11
Burma Inland	11·08	8·15	+2·93	+36
Assam	18·72	17·46	+1·26	+ 7
Bengal and Orissa	16·31	14·53	+1·78	+12
Gangetic Plain and Chota Nagpur	9·50	12·37	−2·62*	−21
Upper Sub-Himalayas	9·28	11·49	−1·86*	−16
Indus Valley and North-West Rajputana.	0·50	2·86	−2·36	−83
East Rajputana, Central India and Gujarat.	6·36	10·64	−4·01*	−38
Deccan	11·63	11·18	+0·37*	+ 3
West Coast	30·74	28·96	+1·77	+ 6
South India	4·09	3·44	+0·49*	+14

* A reference to Table I will show that the means in 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.

Atmospheric Pressure.

The mean pressure of the Indian land area averaged only ·007″ above the average and was hence approximately normal.

Relatively to this general condition, pressure was in slight local defect over Upper Sind, the Punjab and the central districts of the North-Western Provinces. The deficiency was trifling in most places, but was more than 0·02″ at the two following stations :—

STATION.	Variation from normal of mean 8 A.M. pressure of July 1900.	Pressure anomaly, July 1900.
	″	″
Dera Ismail Khan	−·024	−·031
Mooltan	−·017	−·024

Pressure was also in local defect over the southern half of the Peninsula. Here also the deficiency was very small generally and was more than 0·02″ only at the stations for which comparative data are given below :—

STATION.	Variation from normal of mean 8 A.M. pressure of July 1900.	Pressure anomaly, July 1900.
	″	″
Salem	−·015	−·022
Bangalore	−·014	−·021
Calicut	−·014	−·021

In Lower Burma and the Bay Islands there was likewise a slight local deficiency of pressure, relatively to the general condition, but the deficiency exceeded 0·02″ at Tavoy only. The following gives comparative data for that station :—

STATION.	Variation from normal of mean 8 A.M. pressure of July 1900.	Pressure anomaly, July 1900.
	″	″
Tavoy	−·014	−·021

Over the remainder of India pressure was in excess. The excess was very small generally, but was locally 0·02." or more at the following stations :—

STATION.	Variation from normal of mean 8 A.M. pressure of July 1900.	Pressure anomaly, July 1900.
	"	"
Barisal	+·039	+·032
Chittagong	+·027	+·020
Sambhar	+·033	+·026
Indore	+·029	+·022
Bhuj	+·027	+·020

The general pressure distribution of the month was hence nearly normal in all parts of the country. The mean pressure of the month was high over Malabar, Ceylon and Tenasserim and thence decreased northward and north-eastward to the West Punjab and Upper Sind where it was lowest. The trough of low pressure, which is a marked feature of the pressure distribution of the rains, occupied its usual position extending from the south-east of the Punjab east-south-eastward as far as Orissa.

The only marked abnormal feature in the pressure distribution was the slight excess over Gujarat, Khandesh and the adjoining parts of Central India and of Rajputana.

The mean pressure of the month was in excess of the normal at all the hill stations except Wellington, though the excess was extremely small at Mount Abu. The vertical pressure anomalies of the month were generally small in amount, but were positive except in the case of Mount Abu and of Wellington. This is shown below:—

HILL STATION.	Variation of actual from normal pressure, July 1900.	PLAIN STATION.	Variation of actual from normal pressure, July 1900.	Vertical pressure anomaly, (Hill-Plain).
	"		"	"
Quetta	+·024	Jacobabad	—·008	+·032
Leh	+·029	Lahore	—·003	+·032
Murree	+·036	Peshawar	+·004	+·032
Simla	+·028	Ludhiana	? —·022	? +·050
Chakrata	+·047	Roorkee	—·001	+·048
Ranikhet	+·028	Bareilly	+·007	+·021
Darjeeling	+·046	Dhubri	+·017	+·029
Pachmarhi	+·019	Seoni	+·017	+·002
Mount Abu	+·003	Deesa	+·025	—·022
Wellington	—·016	Coimbatore	—·007	—·009

Barometric depressions and cyclonic storms of the month.

During the first few days of the month pressure was low along the line of the hills in Northern India and was highest in the extreme south. Steep barometric gradients existed and strongish westerly winds were blowing over the greater part of the country, and fine, hot weather prevailed over North-West India. On the third pressure increased in the north and was steady or fell slightly in the south, so that the trough of low pressure was transferred southward and lay over the Gangetic Plain. At the eastern extremity of this trough a shallow depression commenced to form on the 4th. The winds became feebly and irregularly cyclonic and some rain fell. On the 5th this depression became better defined and was shown as a long narrow low pressure area extending from the Orissa Coast as far west as Eastern Rajputana. Heavyish rain had fallen in Orissa and the wind had drawn into south-east over Bengal and into east-north-east over Bihar. On the following day, the 6th, the depression had become much smaller, but was better defined. It extended from the Orissa Coast as far as the eastern districts of the North-Western Provinces, and feeble cyclonic winds were reported around it. Rain had at the same time become more general though the heaviest falls were reported from the Central Provinces. On the following day the depression had filled up. On this day, the 7th, pressure was lowest over the West Punjab and was highest in the extreme south. A well-defined trough of relatively low pressure extended from the depression area in the north-west, south-eastward to the head of the Bay. Over this latter area pressure was in large defect and a small depression was developing.

Cyclonic storm of the 7th to the 10th.—The

general conditions of pressure on this day have been described above. Pressure was about 0·125″ below the normal over the north of the Bay and fresh south-westerly winds were blowing throughout the Bay except in the north. 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. *Gisela*	12 53	91 18	29·714	SW	6	Heavy rain.
S.S. *Mercara*	Madras*		·593	WSW	5	Midnight cloudy.
S.S. *Gutenfels*	13 40	92 11	·658	SW	6	
S.S. *Sirdhana*	13 47	92 37	·654	SWbyW	6	Frequent hard squalls of rain.
S.S. *Weissenfels*	15 01	82 33	·714	W	5	
S.S. *Byculla*	15 02	88 24	·466	WSW	7	Heavy quick sea. Terrific squalls.
S.S. *Foreric*	15 30	89 19	·550	WSW	6	
S.S. *Saint Kilda*	15 32	94 50	·619	SW	4	Moderate sea and showery.
S.S. *Kasara*	16 35	93 49	·522	SSW	4	Moderate sea and passing rain squalls.
S.S. *Aphrodite*	16 59	86 03		SSW	4	Cloudy, noon heavy squalls and rain.
S.S. *Matiana*	17 00	84 12	·514	WSW	6	Showery.
S.S. *Gaekwar*	18 48	87 12*		SSW	4	
S.S. *Africa*	19 12	90 21	·425	SSW	2	Moderate sea and fine, 4 A.M. occasional rain squalls.
S.S. *Foreland*	19 27	87 31	·417	SW	2	High head swell, showery.
S.S. *Urlana*	19 32	87 46	·400	SW	2	Frequent rain squalls, 8 P.M. fine.
S.S. *Loch Lintrathen.*	Saugor Island			SE		
S.S. *Maharani*	21 56	91 34	·533	ESE	3	Cloudy.

* Noon position.

The above shows that pressure was probably lowest in about Lat. 20° N. and Long. 88° E. South-westerly and south-south-westerly winds prevailed over the north and centre of the Bay. The strongest wind was reported on board the *Byculla* in Lat. 15°2′ N. and Long. 88°24′ E. and, as is frequently the case with the smaller storms of the rains, the winds were generally stronger at some distance from the storm than in the immediate neighbourhood of the centre. The weather was showery and squally. The following gives 8 A.M. observations of the 7th at the meteorological stations around the northern half of the Bay:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Rangoon	29·673	—·026	—·099	SSW	6	10	2·15	Showery.
Diamond Island.	·646	—·039	—·110	W	15	10	1·15	Showery.
Akyab	·561	—·028	—·121	E	2	10	2·17	Drizzling.
Chittagong	·564	—·028	—·071	ESE	6	8	0·24	
Barisal	·514	—·035	—·063	ESE	3	10	0·88	
Calcutta	·475	—·041	—·080	ENE	4	8	0·23	
Saugor Island.	·455	—·040	—·096	ENE	9	9	0·09	Sea smooth.
Balasore	·459	—·030	—·079	Calm	2	4	0·51	
False Point.	·448	—·059	—·122	NNE	4	10	1·74	Showery.
Cuttack	·455	—·045	—·107	Calm	2	10	0·16	Showery.
Gopalpur	·441	—·060	—·132	SW	7	3	0·03	
Waltair	·467	—·055	—·143	SW	12	9	...	Sea smooth.
Cocanada	·529	—·048	—·104	WSW	13	10	0·05	Sea rising
Masulipatam	·615	—·048	—·054	WNW	15	10	0·98	Drizzling.

The above exhibits a well-marked cyclonic circulation of the winds around the north coasts of the Bay, but the force was nowhere strong. The largest barometric change was —·060″ at Gopalpur where pressure was 0·132″ below the normal.

July 8th.—The depression had crossed the coast during the previous 24 hours. The storm had not intensified and it is doubtful if a well-defined centre existed in the storm. The following gives the marine information 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. *Foreric*	13 10	82 37	29·660	SW	7	Heavy head sea.
S.S. *Byculla*	13 44	87 26	·573	SW	8	High sea, 10 A.M. overcast.
S.S. *Lang Bank*	14 35	81 35*	·500	SW	7	Heavy head sea and rainy.
S.S. *Collegian*	14 38	85 37		WSW	5	Moderate sea and heavy rain.
S.S. *Gaekwar*	16 48	86 19		SW	8	
S.S. *Saint Kilda*	17 24	92 33		W	6	High sea 4 P.M. heavy squall.
S.S. *Foreland*	17 35	86 33	·477	SW	6	High confused sea, noon cloudy.

NAME OF VESSEL.	8 A.M. POSITION.		Barometer as corrected by Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Weissenfels* .	18 23	85 40	29·484	SW by S	7	
S.S. *Loch Lintrathen.*	19 25	86 35		SW	5	Heavy sea.
S.S. *Aphrodite* .	19 43	87 56		W	2	Fine, 4 A.M. rain squall.
S.S. *Saint Irene* .	19 49	86 39*	·345	SW by S		High south-west swell, noon heavy rain.
S.S. *Matiana* .	20 19	87 30	·480	ENE	2	Cloudy, noon passing showers.
S.S. *Karagola* .	Akyab		·554			4 P.M. cloudy.
S.S. *Itaura* . .	Hooghly River		·386	SW		Fine but cloudy.
S.S. *Kapurthala* .	Calcutta		·468			Noon squally.
S.S. *Maharani* .	Chittagong		·495			4 P.M. passing rain squalls.

* Noon position.

The general force of the wind had increased over the Bay and strong south-west winds were blowing over the centre of the Bay, though in the north the force had decreased. The *Matiana* in Lat. 20° 19′ N. and Long. 87° 30′ E. reported a light east-north-east wind, while the *Gaekwar* in Lat. 16° 48′ N. and Long. 86° 19′ E. and the *Byculla* in Lat. 13° 44′ N. and Long. 87° 26′ E. experienced south-west fresh gales. Heavy rain was falling over parts of the Bay. The following gives the 8 A.M. observations of the land stations in the storm area :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inch.	
Gopalpur .	29·440	—·001	—·128	Calm	9	6	...	Sea rough.
Puri . .	·437	—·003	...	SW	7	9	0·02	Cloudy.
Cuttack .	·434	—·021	—·119	ENE	2	7	...	
False Point	·434	—·014	—·125	SE	7	9	...	Distant lightning.
Balasore .	·478	+·019	—·051	NNE	2	7	0·52	
Saugor Island.	·464	+·009	—·080	ENE	11	6	0·06	Showery.
Chaibassa .	·440	—·012	—·095	Calm	3	3	...	
Ranchi .	·470	—·023	—·059	E	10	8	0·09	Showery.
Sambalpur .	·444	—·013	—·123	S	3	10	0·24	Showery.
Raipur	·435	—·062	—·121	Calm	10	8	0·32	Showery.

The above information indicates that the storm was shallow and diffused. The winds were light and irregular within the central area of low pressure, but a well-defined cyclonic circulation existed in surrounding regions where also more or less rain had fallen.

July 9th.—The storm had become much smaller, had advanced north-eastward and was passing through Orissa into South-West Bengal. Over the Bay the winds were stronger than on the two preceding days and were more southerly in direction. The following table gives the marine information of 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* .	12 22	86 38	29·601	SW	8	Heavy sea, 4 A.M. passing clouds.
S.S. *Chindwara*	Madras		·737		...	4 A.M. overcast.
S.S. *Akbar* .	13 11	84 14	·659	SW	6	High beam sea.
S.S. *Onipenta* .	13 51	85 13	·617	SW	6	Slight sea and squally.
S.S. *Gaekwar* .	14 24	85 15	...	SW	8	High head sea. Fierce squalls of wind and rain.
S.S. *Foreland* .	15 59	85 33	·577	WSW	7	High confused sea, violent squalls and heavy rain.
S.S. *Collegian* .	17 47	86 38	...	SW	6	Moderating sea.
S.S. *Loch Lintrathen.*	18 06	85 07	...	SW	5	High sea.
S.S. *Saint Irene*	18 29	84 59	·425	SW	5	High sea, cloudy.
S.S. *Saint Kilda*	18 58	90 23	·507	SSW	6	Heavy sea, and violent squalls.
S.S. *Maharani*	19 08	92 29	·592	SSW	6	Cloudy, noon heavy showers of rain.
S.S. *Kangra* .	20 02	86 58*	·493	SW	4	4 A.M. passing rain squalls.
S.S. *Itaura* .	20 42	88 13	·302	SW	4	South-west swell, cloudy, midnight frequent heavy squalls.
S.S. *Weissenfels*	20 49	87 53	...	SW	3 to 4	
S.S. *Kapurthala*	21 12	90 16	·484	S	4	Heavy south swell, occasional rain squalls.
S.S. *Karagola* .	Chittagong		·553	SE	...	4 A.M. cloudy.
S.S. *Kistna* .	Calcutta		·390	...	...	Noon frequent light showers

* Noon position.

The above shows that south-westerly winds had extended into the north of the Bay. The force of the wind in this area was, however, only moderate, while, on the other hand, the *Gaekwar* (Lat. 14° 24′ N. and Long. 85° 15′ E.) and the *Byculla* (Lat. 12° 22′ N. and Long. 86° 38′ E.) continued to report south-west gales, passing clouds and

squalls. The following gives the 8 A.M. land observations within 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
False Point	29·453	+·019	—·101	WSW	7	9	..	
Balasore	·441	—·037	—·083	NNW	3	5	0·17	
Saugor Island.	·425	—·039	—·113	ENE	11	7	0·04	Sea slight.
Midnapore	·447	—·019	—·098	NE	1	5	1·20	Continuous rain.
Calcutta	·457	—·025	—·085	E	6	10	0·23	Showery.
Burdwan	·460	—·032	—·080	NE	4	8	0·36	
Bankura	·431	—·023	...	ENE	5	8	0·29	Drizzling rain.
Chaibassa	·428	—·012	—·103	Calm	3	6	0·01	

Pressure had given way very slightly over Bengal and the depression, which had become much smaller, was advancing north-eastward through Orissa into South-West Bengal. The winds were light and irregular in Bengal and light to moderate rain had fallen over Bengal and Assam.

July 10th.—The depression had almost filled up though a small residual depression was still shown over Chota Nagpur.

The following gives marine information 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.
	° ′	° ′	"			
S.S. *Chindwara*	Madras		29·707			8 P.M. overcast.
S.S. *Steinberger*	Madras		...	WSW	3	
S.S. *Florida*	13 35	84 52	...	SW	5	High sea, overcast.
S.S. *Deepdale*	14 20	90 05	·636	SW	6	Strong sea and showery.
S.S. *Malda*	15 47	93 58	·631	WSW	5	Frequent squalls.
S.S. *Akbar*	15 58	85 14	·609	WSW	5	High sea, occasional squalls.
S.S. *Onipenta*	16 21	86 46	·543	SW	4	Moderate sea, fine.
S.S. *Loch Lintrathen.*	16 37	83 10	...	WSW	6	High sea, fine.
S.S. *St. Irene*	16 51	82 30	·545	SW by W	5	4 A.M. squally.
S.S. *Catharine Apcar.*	17 02	90 19	·605	SW	6	Occasional squalls.
S.S. *Itaura*	18 22	90 21	·459	SW	6	High sea, frequent heavy squalls.
S.S. *Kistna*	19 18	90 10	29·769	SW	6	Heavy sea.
S.S. *St. Kilda*	Gasper L. V.		...	WSW	...	4 A.M. cloudy.
S.S. *Collegian*	Saugor Island*		...	WSW	4	Overcast.
S.S. *Karagola*	Chittagong		·566	...	...	Noon overcast.
S.S. *Putiala*	Hooghly River		·440	SE	...	Fine.

* Noon position.

The force of the winds had further increased over the Bay and was higher than on the three preceding days, but the direction was normal and the weather had improved.

Small depression of July 11th to the 15th.—On the 11th pressure was giving way very slowly over the Bay and was in moderate defect off the Orissa and Circars coasts. The winds were light from east in Deltaic Bengal while they were south-westerly and westerly on the Circars and Orissa coasts. The wind was moderate to strong from south-west over the Bay where the weather was squally and rainy. The following gives the 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.
	° ′	° ′	"			
S.S. *Okara*	14 07	93 11	29·689	SW by S	4	Overcast, 4 A.M. heavy rain.
S.S. *Loch Lintrathen.*	14 30	81 05		WSW	2	Cloudy.
S.S. *Sheikh*	14 54	85 15	·606	SW	6	Heavy sea and heavy rain squalls.
S.S. *Fonar*	15 41	83 16	·585	WSW	5	Moderate sea cloudy, 4 A.M. heavy rain.
S.S. *Clan Alpine*	16 05	85 44	·523	SW	4	Heavy sea and heavy rain squalls.
S.S. *Kistna*	16 15	93 29	·747	SSW	4	Moderate sea, cloudy.
S.S. *Florida*	16 38	86 06	...	SW	5	Rough sea, overcast.
S.S. *Deepdale*	17 24	89 12	...	SW	6	Strong sea, cloudy.
S.S. *Kangra*	Bimlipatam		·487	SW	2	
S.S. *Akbar*	18 30	86 01	·559	SW	5	High sea.
S.S. *Tokio*	18 48	87 16*	...	SW	6	Beam sea.
S.S. *Malda*	18 55	90 47	·517	SW	5	Moderate sea, thick rain.
S.S. *Onipenta*	19 26	87 47	·464	SW by W	4	Occasional rain.
S.S. *Putiala*	19 46	88 52	·416	SW	2	Fine.
S.S. *Karagola*	21 28	88 24	·487	NE	4	Overcast.
S.S. *Kapurthala*	Chittagong		·654	...	...	Noon fine.

* Noon position.

July 12th.—The weather was feebly disturbed over the north of the Bay where pressure was about 0·10″ below the normal. The following gives the marine data for this day for the northern half 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. *Tokio* .	17 00	86 31	...	SW	7	High sea, overcast.
S.S. *Putiala* .	17 23	89 32	29·461	WSW	6	High cross sea and hard squalls.
S.S. *Maharaja*.	17 48	91 40	·486	S W by W	6	Continuous rain and heavy squalls.
S.S. *Fonar* .	19 12	86 28	·435	WSW	5	Heavy following sea, overcast.
S.S. *Akbar* .	20 20	87 34	·459	Var	0	Light showers.
S.S. *Kapurthala*	Akyab		·507	...	...	4 A.M. passing squalls of rain.
S.S. *Deepdale* .	20 46	88 18	·436	SW	2	Showery, 4 A.M. squally.
S.S. *Florida* .	Ridge	L. V.*		SW	4	South sea, noon fine.
S.S. *Onipenta* .	21 30	88 06	·407	N	2	Light rain.
S.S. *Malda* .	Hooghly Point		·410	NW	2	Overcast.

* Noon position.

Fresh to strong south-westerly and west-south-westerly winds prevailed over the greater part of the north of the Bay, but the *Onipenta* in Lat. 21° 30′ N. and Long. 88° 6′ E., reported a light northerly wind and the *Malda* at Hooghly Point a light north-west wind, showing the indraught towards the small centre which existed between False Point and Saugor Island. The weather was squally with heavy rain in places. The following gives the 8 A.M. observations at the stations around the north of the Bay:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Rangoon	29·691	—·014	—·041	SSW	7	8	1·06	Showery.
Diamond Island	·671	—·024	—·047	SW	17	9	0·62	
Akyab .	·543	—·075	—·105	S	2	10	2·93	Rainy.
Chittagong	·546	—·052	—·066	ESE	11	9	0·03	
Barisal .	·478	—·070	—·084	ENE	4	7	0·06	
Calcutta .	·446	—·073	—·086	SSE	2	7	0·60	Showery.
Saugor Island.	·437	—·080	—·087	E	8	9	0·03	Distant lightning.
Balasore .	·449	—·041	—·061	Calm	3	7	...	
False Point	·434	—·047	—·103	W	4	9	0·30	Showery.
Cuttack .	·451	—·035	—·077	Calm	2	9	1·41	
Puri . .	29·451	—·039	...	Calm	4	9	0·05	Cloudy.
Gopalpur .	·465	—·015	—·087	WSW	8	8	0·01	
Waltair .	·528	+·003	—·045	SW	16	10	...	Sea slight.
Cocanada .	·554	—·022	—·038	WSW	11	10	0·59	
Masulipatam	·591	—·040	—·050	WNW	12	10	2·01	Distant lightning.

The barometric fall was slight except in the immediate neighbourhood of the storm where it was brisk. The wind was light from west at False Point and from east at Saugor Island and the centre of the storm lay between those stations. The following is the account of the weather on the 11th and 12th as experienced on the F.L.V. *Torch* which shows that the weather was not much disturbed at the head of the Bay:—

11th July.—A heavy quick southerly swell, unsettled squally weather, at 8-30 A.M. a squall from the northward, wind veering back to south by the afternoon. During the night vivid lightning to the south-east, south-west and north-west.

12th July.—A heavy southerly swell, unsettled weather and a light variable breeze during the day, throughout the night lightning between south-east and west. Heavy continuous rain from 11 P.M. to midnight.

July 13th.—The barometer had fallen briskly to rapidly at the head of the Bay and the cyclonic storm had developed quickly, the centre lying apparently close to Saugor Island in about Lat. 2 .° 20′ N. and Long. 88° 40′ E. The wind, however, remained moderate in force over the Bay generally. The following gives the 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. *Clan Colquhoun.*	14 46	81 45	29·523	W	2	Moderate south swell, cloudy.
S.S. *Tokio* .	14 51	85 19	...	SW	6	Hard squalls of rain.
S.S. *Logician* .	15 11	85 49	...	SW	5	Moderate south-west sea, overcast.
S.S. *Sui Sang* .	15 16	93 06	·655	SW	5	Heavy west swell, overcast.
S.S. *Kangra* .	15 28	81 58*	·596	SW	4	
S.S. *Putiala* .	15 48	89 39	·510	SW by S	6	Strong sea, cloudy 4 P.M. occasional rain squalls.
S.S. *Dragoman*	18 40	87 05*	·405	SW	7	High head sea, continuous rain.
S.S. *Kasara* .	19 00	93 40	·497	SW	4	Moderate sea, rainy.
S.S. *Rasmora* .	19 44	87 44	·393	SSW	6	Heavy rain.
S.S. *Maharaja*.	20 10	88 54	·364	WSW	...	Dull, cloudy; 4 A.M. frequent heavy squalls.
S.S. *Kapurthala*	Akyab		·517	...	...	Noon heavy rain squalls.

* Noon position.

There were no records from the extreme north of the Bay except from the light vessels which experienced light to fresh south-westerly winds. The storm was very small and the weather over the centre of the Bay was quite unaffected, moderate to fresh south-west winds and squally weather prevailing throughout. The following is the account of the weather on this day as experienced on board the F. L. V. *Torch* :—

"Heavy confused south-south-west sea all through. Heavy rain from 0 to 7 A.M. with light variable winds. At 8 A.M. the wind settled into the south-south-west. Weather squally, passing rain showers during the remainder of the day."

The following gives the 8 A.M. observations at the coast stations around the Bay :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Rangoon	29·707	+·016	—·020	SSW	11	10	0·70	Showery.
Diamond Island.	·686	+·015	—·028	SW	19	10	0·39	Sea rough.
Akyab	·563	+·020	—·083	S	4	10	2·31	Showery.
Chittagong	·508	—·038	—·104	SE	13	10	...	
Barisal	·413	—·065	—·147	SSE	6	5	0·41	
Calcutta	·313	—·133	—·218	ESE	5	9	0·07	
Saugor Island	·265	—·172	—·255	NNE	6	10	0·98	Raining.
Balasore	·343	—·106	—·164	WSW	1	9	2·45	Showery.
False Point	·360	—·074	—·173	W	14	10	6·00	Continuous rain.
Puri	·393	—·058	...	WSW	8	10	0·74	Drizzling rain.
Cuttack	·392	—·059	—·133	SW	4	10	1·19	Continuous rain.
Gopalpur	·408	—·057	—·142	SW	15	8	0·45	
Waltair	·467	—·061	—·102	SW	15	10	...	Sea slight.
Cocanada	·514	—·040	—·075	WSW	7	10	0·09	
Masulipatam	·575	—·016	—·061	WNW	10	10	0·13	Drizzling.

The only important change was at Saugor Island where the barometer had fallen 0·172" in 24 hours and was 0·255" below the normal. The wind was from north-north-east at 8 A.M. but shifted to south-west at 2 P.M. by which time the storm was crossing the coast.

July 14th.—The cyclonic storm had travelled quickly west-north-westward and at 8 A.M. the centre lay in about Lat. 24° N. and Long. 82°30′ E. so that the movement had been at a rate of 18 miles per hour. The following gives the 8 A.M. observations within the storm area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Ranchi	29·400	+·018	—·120	SSE	9	10	3·04	Continuous rain.
Hazaribagh	·395	+·005	—·139	SSE	14	10	0·58	Showery.
Daltonganj	·299	—·068	...	?	5	8	1·60	
Gaya	·393	+·013	—·131	NE	14	8	0·10	Showery.
Dehri	·334	—·047	—·183	E	15	10	0·15	
Buxar	·342	—·047	—·169	E	7	10	0·02	
Benares	·319	—·068	—·184	NE	2	10	0·10	Showery.
Allahabad	·350	—·037	—·148	ENE	6	10	0·48	Drizzling.
Cawnpore	·393	+·012	—·118	ENE	2	10	0·83	Thunder storm.
Mainpuri	·384	—·005	—·124	E	3	6	0·13	
Agra	·360	—·014	—·140	SE	4	8	0·35	
Jhansi	·378	—·017	—·131	S	1	7	0·50	
Nowgong	·387	—·008	—·126	Calm	1	10	0·11	
Sutna	·384	—·008	—·126	N	2	10	1·70	Raining.
Saugor	·409	—·011	—·114	W	1	8	...	
Jubbulpore	·404	—·005	—·134	WNW	6	10	0·48	Drizzling.
Sambalpur	·429	+·014	—·089	SSW	7	10	0·76	
Neemuch	·435	—·028	—·126	WSW	8	10	2·42	Drizzling.

The barometer had risen briskly to very rapidly over Lower Bengal, while it had fallen very slightly over the central parts of the country and the South Gangetic Plain. Pressure was in large defect in the central area of the storm. The winds were cyclonic around the storm and rain had been general in its neighbourhood.

July 15th.—The storm had continued to progress west-north-westward and was central near Agra in Lat. 27° N. and Long. 78° E, having travelled at a rate of 15 miles per

hour since the previous morning. The following gives 8 A.M. data for the storm area:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Nowgong .	29·441	+·054	—·071	SSW	1	8	0·09	Showery.
Jhansi . .	·430	+·052	—·081	S	1	4	0·20	Showery.
Cawnpore .	·442	+·049	—·069	SE	4	10	2·13	Thunder storm.
Lucknow .	·471	+·057	—·038	E	7	10	1·25	
Mainpuri .	·397	+·013	—·111	SSE	6	10	2·07	
Agra . .	·376	+·016	—·125	SW	5	10	0·22	Drizzling.
Bareilly. .	·433	+·001	—·075	E	2	10	2·37	Raining.
Meerut . .	·411	—·005	—·096	NE	2	10	1·30	
Delhi . .	·435	+·014	—·068	ENE	6	10	1·06	Showery.
Sirsa . .	·439	+·047	—·050	SE	1	3	...	
Bikaner .	·430	+·054	—·096	Calm	9	0	...	
Jaipur . .	·454	+·005	—·039	NW	2	7	1·38	Thunder storm.
Sambhar .	·457	+·047	—·038	NNE	3	6	0·45	

Pressure had increased everywhere and the storm was filling up but pressure at the centre was 0·125″ below the normal. General moderate rain had fallen in the neighbourhood of the disturbance. The storm filled up during the day. The following gives the position and rate of movement of the storm from day to day:—

DATE.	POSITION OF CENTRE AT 8 A.M.		Distance travelled during interval.	Approximate rate of motion in miles per hour.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
13th July .	21 20	88 40	...	...
14th „ .	24 0	82 30	425	18
15th „ .	27 0	78 0	360	15

From the 17th to the 23rd the weather was free from disturbance. The monsoon blew fairly steadily up the Bay and a fair amount of rain fell over Burma and North-East India, but the monsoon current from the Arabian Sea was weak and gave very little rain to Western, Central and North-Western India. On the 22nd the barometer fell briskly on the Mid-West Coast and light easterly winds appeared at Ratnagiri, Goa and Mormugao. On the 23rd the fall ceased, but pressure remained abnormally uniform off the West Coast, with light variable winds and a high temperature. On the next day, the 24th, Mangalore reported over 10 inches of rain and pressure had fallen to below the normal in the extreme south. The barometer continued to fall over the Peninsula and the area of relatively low pressure extended northward along the West Coast where light southerly and south-easterly winds were reported. The greatest deficiency of pressure was reported from Mangalore on the 26th, from Ratnagiri on the 27th, from Bombay on the 28th and from Kurrachee on the 29th. This abnormal depression of the barometer never developed into a storm, but the winds were south-easterly on its northern side and westerly on its southern side, and as it advanced northward along the coast it brought heavy rain from Malabar right up to Gujarat. The following were the mean daily rainfalls in the coast districts from Travancore to Gujarat from the 24th to the 31st:—

DISTRICT.	AVERAGE ACTUAL RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF							
	24th July.	25th July.	26th July.	27th July.	28th July.	29th July.	30th July.	31st July.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
North Kanara . .	1·70	2·15	1·32	3·93	3·08	1·59	0·73	0·93
Savantvadi . . .	0·80	0·16	0·93	6·28	8·90	1·57	1·59	0·54
Ratnagiri . . .	0·92	0·17	0·58	1·06	5·26	1·84	1·05	0·83
Koalba . . .	0·13	0·59	0·73	0·53	1·92	3·87	1·65	3·61
Thana . . .	0·12	0·27	0·46	0·21	0·35	2·36	1·47	1·94
Surat	0·08	0·10	0·06	0·10	1·35	1·18	4·10	3·45
Kathiawar . . .	0·05	0·04	0·16	0·15	1·15	0·43	0·97	2·44
Cutch	0	0	0·06	0·04	0·92	0·90	0·35	0·14

On the 29th pressure began to give way over the Bay and a depression was formed, the history of which will be traced in next month's review.

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.

Chitral.—During the month of July there were indications of snowstorms on the Shundar and Hindu Kush ranges, but no reports of snow having fallen lower than 14,000 feet have been received. There were storms on the 24th, 25th and 26th July on the Badakshan Hills,

Shundar range and in the direction of the Tarid Kho Valley.

II.—KASHMIR AND PUNJAB HIMALAYAS.

Kashmir.—The following report has been received from the Meteorological Reporter, Kashmir State :—

There was no snowfall on the hills in and around the valley of Kashmir in July, nor on the higher ranges near Minimarg. The Gulmarg observer reports that on the higher ranges of the Pir-Panjal very light snow fell on the 1st, 7th, 9th, 12th, 13th, 15th, 16th, 21st and 28th of July.

On the higher ranges of the Zoji-La about six inches of snow fell in July. There was no snow in Baltistan or on the high hills in Kargil.

From all reports it would appear that there was no heavy snow on the Kashmir Himalayas in July.

(2) *Chamba.*—Abnormally heavy and continuous rain fell on the middle elevations of the Pangi Range on the 12th and the 14th to 16th of July, and snow fell on the higher hills. The snow line descended to about 13,000 feet, but the snowfall amounted to only 3 inches at 14,000 feet.

(3) *Simla.*—During July as far as could be observed, no snow fell below 14,000 feet, but on the 14th a slight fall occurred at places above that altitude.

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

No snow fell on the high ranges in Garhwal or Almora except on the well-known peak of Utadhura where 2 feet of snow fell on the 15th and 16th.

It was stated in the memorandum published in the *Gazette of India* on the 9th of June that the snowfall information showed that the snowfall of the preceding winter was nowhere excessive in the Western Himalayas, and over the greater part of the area was normal in amount or in defect. The snow commenced later and also continued later than usual. So far as could be judged, the snowfall was generally in slight to moderate excess in the Simla Hills and in some parts of Kashmir. The snow accumulation at the end of May was probably about normal in Kashmir, Kumaun and Garhwal and also in Baluchistan; in moderate excess in Bushahr and in moderate to considerable defect in Afghanistan, Chitral and the greater part of the Punjab Himalayas.

The reports for June and July indicate that even less snow than usual had fallen over the Western Himalayas; and as the period from May to July had been drier and warmer than usual in the Western Himalayas, it is probable that the snow accumulation had melted more rapidly than usual, and that it was generally below the normal at the end of the month under review except perhaps in Bushahr.

Summary of special Storm Reports.

The following gives a statement of the chief local storms of which reports were received during the month. The storms were more numerous than usual owing to the delay in the establishment of the monsoon :—

1st July.—A duststorm with hot winds passed over Agra at 1-30 A.M.

Very heavy duststorm passed over Hoshangabad from north-east to south-west at 4 P.M. The storm lasted 25 minutes, but no rain fell. At 6-40 P.M. another very heavy duststorm passed over the station lasting about half an hour.

2nd July.—A duststorm passed over Allahabad. It commenced at 6-30 P.M. and lasted until 9-30 P.M.

A very heavy duststorm passed over Hoshangabad at 4 P.M. It lasted twenty minutes.

3rd July.—A heavy duststorm passed over Hoshangabad at 3-2 P.M., but no rain fell.

A dust and thunderstorm passed over Allahabad between 7-30 P.M. and 9 P.M.

4th July.—A slight duststorm passed over Allahabad. It commenced at 6-15 P.M. and took off about 7-30 P.M.

A duststorm occurred at Gulmarg between 4 P.M. and 7-30 P.M.

A very heavy duststorm passed over Hoshangabad at 6-45 P.M., lasting half an hour.

5th July.—A duststorm occurred at Srinagar, lasting from 6 P.M. to 7-30 P.M. A thunderstorm passed over Gulmarg between noon and 9 P.M. It occasioned a few drops of rain.

10th July.—A duststorm was experienced at Jodhpur. It lasted from 4-59 P.M. to 5-9 P.M.

12th July.—A duststorm with rain passed over Jodhpur at 7-17 P.M. The storm lasted about 20 minutes.

13th July.—A duststorm passed over Jodhpur at

5-59 P.M. Thunder, lightning and some rain occurred. The storm lasted for 25 minutes. A slight thunderstorm passed over Gulmarg between 0-30 A.M. and 4-30 A.M.

20th July.—A thunderstorm was experienced at Salem at 6-45 P.M. The storm lasted till 8 P.M. Heavy rain fell (2″) and the wind was very strong.

23rd July.—At 5 P.M. a thunderstorm passed over Salem. The storm lasted 35 minutes.

25th July.—A thunderstorm was experienced at Srinagar from 7-30 A.M. to 10 A.M., during which 1·03″ of rain fell.

27th July.—A thunderstorm occurred at Veraval at 6 P.M. with heavy rain.

28th July.—A duststorm passed over Jodhpur at 4-57 P.M. The storm only lasted a few minutes. Another duststorm overtook the station at 5-29 P.M. No rain fell and the storm only lasted half-an-hour.

A violent duststorm with thunder and lightning passed over Jacobabad at 10 P.M.

A thunderstorm passed near Ispahan at 6-15 to 6-50 P.M.

31st July.—A violent dust storm occurred at Jodhpur at 3-50 P.M. lasting 20 minutes.

A violent duststorm passed over Jacobabad at 8-45 P.M. It commenced in the north-north-east and lasted half-an-hour.

A thunderstorm commenced at Srinagar at 6 A.M. and lasted until 7-45 A.M.

13th and 14th July.—A severe hailstorm occurred in the Balaghat district. The stones in some cases were of the size of a mangoe.

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

Arabian Sea.—Fairly normal monsoon conditions obtained generally over this area throughout the month except for a short period from the 17th to the 26th, when light unsteady winds were experienced in the east off the Malabar and Konkan coasts.

The air movement varied considerably in strength over the Arabian Sea from day to day and was on the mean of the whole month 0·4 weaker than usual. There was only one well-defined period of stronger winds than usual, *viz.*, the 12th to the 14th. During this period the air movement was 0·7 above the normal. The monsoon current was, on the other hand, very feeble from the 16th to the 26th, the decreased movement being most marked in the east of the sea.

Bay of Bengal.—The monsoon current was remarkably strong and steady during the first fifteen days of the month over this area except locally in the north where it varied somewhat irregularly both in direction and intensity, due partly to the varying pressure conditions in the surrounding land area and partly to the formation of two cyclonic disturbances during the second week. The air movement fluctuated between 6·2 on the 10th and 4·1 on the 12th and was on the average of the whole period 20 per cent stronger than usual.

Important pressure changes set in during the 15th which tended to diminish the baric gradient over the north and centre of the Bay. The monsoon current hence fell off and was very feeble during the next thirteen days. As is usual under such conditions, the winds were very irregular in direction during the greater part of the period. They were feeblest on the 20th, a day typical of the period, when their average strength as derived from the data of 19 vessels was 2·3 or 1·7 below the normal of the month.

A fresh advance of monsoon winds began over the south of the Bay on the 26th and 27th, and, as frequently happens, a storm was generated in the front of the advancing current over the north of the Bay on the last three days of the month. Heavy weather with cyclonic winds of force 4 to 9, hence prevailed over the north-west of the Bay on the 30th and 31st, the mean wind force at 8 A.M. of the latter date being 5·4 or 1·4 above the normal.

On the mean of the whole month the Bay current was 0·2 stronger than usual.

Equatorial Belt.—The information for this region is, as usual, very scanty, but suffices to indicate that moderate to fresh south-east trade winds obtained over the western half of the area during the greater part of the month, and that they were strongest from the 13th to the 15th. The data for the Seychelles and Zanzibar show that at both these stations the wind was slightly more easterly than usual. The most noteworthy feature of the weather was the increased rainfall at Zanzibar which received a total of 5·10 inches during the month as compared with 2·12 inches, its normal fall in July.

The chief abnormal features of the meteorology of the Indian seas during the month may be summed up as follows:—

(1) The Bay current was considerably stronger than usual during the first fifteen days of the month and again on the 30th and 31st. It was, on the other hand, more or

less below its normal strength from the 16th to the 29th, during which period the greater part of the Bay was occupied by light unsteady wind.

(2) The Bombay current was not so steady or strong as usual in July. Conditions were most abnormal in the east of the sea where light unsteady winds were experienced from the 16th to the 26th.

(3) There was a somewhat stronger set of the south-east trades current to East Africa than usual. It is noteworthy that out of a total of 5·10 inches of rain received at Zanzibar during the month, 4·34 inches fell during the period from the 15th to the 26th when the monsoon currents both in the Arabian Sea and Bay of Bengal were very weak.

Temperature of the Air.

The variations of the mean temperature conditions of the month from the normal were mainly determined by the abnormal distribution of the rainfall of the month. The Arabian Sea monsoon was weak at the commencement of the month and gave little rain in the interior until after the 11th. A break in the rains commenced on the 18th and the rainfall was very scanty over the whole of India on the 25th and 26th, but on the 27th a change set in. Heavy rain commenced on the Malabar coast and extended quickly over the whole area which depends for its rainfall on the Bombay current. Up to this time there had been no general rain in the northern districts of this area including Cutch, Kathiawar, Gujarat, West Rajputana and the west of Central India. There was a partial break in the rains over the Gangetic Plain and Bengal from the 21st to the 26th, and very hot, dry, weather prevailed over North-Western India during the same time.

The mean maximum or day temperature of the month was below the normal over Assam and a large part of East, North and Central Bengal. The deficiency was, however, small, *i.e.*, less than 2° except at the stations in the Assam Valley. This is shown below:—

Province.	Station.	Mean maximum temperature.		
		Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
		°	°	°
Assam	Dhubri	84·0	87·4	−3·4
	Sibsagar	88·0	90·8	−2·8

The mean maximum temperature was also in defect of the normal, in the extreme south of the Peninsula and in East Ceylon. The variations here also were small except in the case of Trincomalee. The following gives comparative data for this area:—

Station.	Mean maximum temperature.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	°	°	°
Trincomalee	90·8	94·1	−3·3
Coimbatore	87·1	88·0	−0·9
Madura	96·4	97·3	−0·9

There was also a slight local deficiency in the day temperature means in the East Punjab where Ludhiana and Umballa exhibited trifling negative variations. The following gives comparative data:—

Station.	Mean maximum temperature.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	°	°	°
Ludhiana	97·4	97·9	−0·5
Umballa	93·5	93·7	−0·2

Over the whole of the remainder of India the mean maximum temperature of the month was in excess. The excess was more than 2° in amount over a very large area including the greater part of the Punjab, Baluchistan, Sind, Rajputana, Central India, the Central Provinces, the south of the North-Western-Provinces, the Deccan and

Bombay. It was more than 5° at the stations for which comparative data are given below :—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	°	°	°
Ahmedabad	99·7	90·6	+9·1
Deesa	99·5	91·3	+8·2
Rajkot	97·3	90·1	+7·2
Jaipur	98·6	91·8	+6·8
Sambhar	98·6	91·9	+6·7
Hoshangabad	92·8	86·1	+6·7
Jhansi	97·0	90·7	+6·3
Neemuch	93·0	87·0	+6·0
Sutna	92·5	86·8	+5·7
Ajmer	96·6	90·9	+5·7
Bikaner	105·7	100·1	+5·6
Indore	89·6	84·0	+5·6
Bhuj	95·5	90·1	+5·4
Agra	98·2	92·9	+5·3
Surat	92·3	87·1	+5·2
Bhavnagar Para	97·7	92·5	+5·2
Jacobabad	112·5	107·4	+5·1

The excess was hence greatest in the area of largest deficiency of rainfall including Rajputana, Central India and Gujarat.

Very hot dry weather prevailed almost uninterruptedly over North-Western India from the 1st to the 12th and again from the 20th to the 26th when—but more particularly during the first period—very high maximum temperatures were recorded. The following gives data :—

STATION.	Highest maximum temperature recorded in July 1900.	Date on which recorded.	Highest maximum temperature recorded in July previous to 1900.	Year in which recorded.
	°		°	
Jhansi	113·9	1st	113·2	1876
Agra	112·5	1st	111·0	1891
Allahabad	111·6	1st and 3rd	113·4	1876
Benares	110·3	3rd	116·0	1873
Mainpuri	109·2	3rd	108·3	1897
Cawnpore	109·0	2nd and 3rd	109·1	1891
Meerut	108·6	3rd	110·0	1876
Roorkee	107·2	2nd	113.2	1876
Sialkot	118·5	2nd and 3rd	119·5	1878
D. I. Khan	118·2	3rd	120·5	1891 and 1892
Peshawar	118·0	2nd	117·0	1892
Khushab	117·9	2nd	119·1	1891
Montgomery	117·0	3rd	120·4	1891
Rawalpindi	117·0	2nd and 3rd	115·0	1897
Lahore	116·6	2nd and 3rd	117·8	1891
Ludhiana	115·4	3rd	117·8	1881
Sirsa	115·3	4th	118·4	1891
Umballa	111·9	2nd	108·0	1897
Jacobabad	123·0	2nd	120·0	1899
Bikaner	112·9	2nd	114·3	1891
Kotah	112·6	2nd	108·1	1897
Jaipur	112·2	2nd	111·3	1891
Sambhar	111·0	2nd	110·0	1891
Nowgong	110·5	1st and 2nd	108·8	1878
Sutna	108·6	1st	106·5	1876
Ahmedabad	106·3	3rd	102·3	1897
Rajkot	104·9	2nd	103·9	1892
Bhavnagar Para	104·1	4th	101·1	1899

The preceding data indicate that the maximum temperatures of the month were higher than any previously recorded in July in parts of the North-Western Provinces, of the Punjab, of Rajputana, of Upper Sind, of Central India, and of Gujarat, and that at Jacobabad the thermometer rose to 123°.

The following gives the highest maximum temperature of the month in each of the provinces of India with the dates on which they were recorded and the highest previously recorded maxima at the same stations :—

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in July 1900.	Date on which recorded.	Highest maximum temperature recorded in July previous to 1900.	Year in which recorded.
		°		°	
BURMA	Mandalay	100·6	7th	106·1	1898
ASSAM	Silchar	98·1	31st	103·6	1896
BENGAL	Bankura	100·6	3rd	105·1	1897
ORISSA	Cuttack	101·4	2nd	104·4	1897
BIHAR	Dehri	107·9	3rd	106·4	1897

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in July 1900.	Date on which recorded.	Highest maximum temperature recorded in July previous to 1900.	Year in which recorded.
		°		°	
CHOTA NAGPUR	Daltonganj .	107·1	2nd	108·1	1897
N.-W.-P. AND OUDH.	Jhansi . .	113·9	1st	113·2	1876
PUNJAB . .	Sialkot .	118·5	2nd and 3rd.	119·5	1878
SIND . .	Jacobabad .	123·0	2nd	120·0	1899
RAJPUTANA .	Bikaner .	112·9	2nd	114·3	1891
GUJARAT . .	Ahmedabad .	106·3	3rd	102·3	1897
CENTRAL INDIA	Nowgong .	110·5	1st and 2nd.	108·8	1878
CENTRAL PROVINCES.	Hoshangabad	106·4	2nd	102·9	1878
BERAR . .	Akola . .	104·7	2nd	109·0	1875
WEST COAST .	Ratnagiri .	91·4	5th	89·0	1878
BOMBAY DECCAN	Sholapur .	97·2	1st	99·7	1877, 1891 and 1895.
MYSORE . .	Mysore .	91·1	22nd	92·1	1899
MADRAS COAST	Nellore .	104·3	2nd	107·9	1899
MADRAS DECCAN	Cuddapah .	102·2	2nd and 11th.	105·2	1897
SOUTH INDIA .	Tinnevelly .	101·3	21st	102·4	1899

The above return shows that the highest maxima were generally recorded during the first week of the month in the greater part of the country and that in the case of Dehri, Jhansi, Jacobabad, Ahmedabad, Nowgong, Hoshangabad and Ratnagiri, the readings were higher than have previously been recorded.

The mean minimum or night temperature of the month was below the normal over parts of Upper Burma, Assam, Central and North Bengal, Bihar and the east of the North-Western Provinces, as well as locally at Nellore and Colombo. The variations were small generally and exceeded 1° only at the following stations for which comparative data are given below :—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	°	°	°
Dhubri	77·5	78·6	—1·1
Dinajpur	77·8	78·9	—1·1

Over the whole of the remainder of India the mean minimum temperature of the month was in excess. As in the case of the maximum temperature this excess was greatest over North-West India, and exceeded 2° practically over the whole of the Punjab, Sind, Rajputana, Gujarat and Central India as well as parts of the Central Provinces and of the Deccan. The area of absolutely greatest excess lay, however, further northward than in the case of the area of greatest excess in the day temperature and covered a large part of Rajputana and the south of the Punjab. The following gives comparative data of the stations within this area of greatest excess :—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	°	°	°
Bikaner	85·5	80·0	+5·5
Mooltan	88·0	83·0	+5·0
Sirsa	85·2?	80·9?	+4·3?
Jaipur	80·9	76·9	+4·0
Sambhar	81·8	77·8	+4·0

The mean temperature of the month was below the normal over Assam, East, Central and North Bengal and part of Bihar. The deficiency was, however, less than 1° except at the following stations :—

STATION.	MEAN DAILY TEMPERATURE.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900
	°	°	°
Dhubri	80·8	83·1	—2·3
Sibsagar	83·2	84·5	—1·3
Mymensingh	81·8	82·8	—1·0
Purnea	83·4	84·4	—1·0

The mean temperature of the month was locally lower than usual at Trincomalee (—1°·2) and Madura (—0°·3), but over the whole of the remainder of India the mean temperature exceeded the normal. The excess was moderate to large over the greater part of North-Western India and across the head of the Peninsula and was more

than 4° in amount at the stations for which comparative data are given below :—

STATION.	MEAN DAILY TEMPERATURE.		
	Actual, July 1900.	Normal, *July*.	Variation of actual from normal, July 1900.
	°	°	°
Ahmedabad	90·7	84·3	+6·4
Deesa	90·3	84·4	+5·9
Bikaner	95·6	90·8	+5·6
Jaipur	89·8	84·4	+5·4
Sambhar	90·2	84·8	+5·4
Jhansi	89·6	84·5	+5·1
Rajkot	87·9	82·8	+5·1
Ajmer	88·6	83·8	+4·8
Hoshangabad	85·2	80·5	+4·7
Agra	91·2	86·6	+4·6
Sirsa	94·7	90·3	+4·4
Neemuch	84·7	80·4	+4·3
Mooltan	97·3	93·1	+4·2
Indore	82·2	78·1	+4·1

At the hill stations the mean maximum temperature of the month was generally in excess except at Leh, Chakrata and Darjeeling, and the mean minimum temperature of the month was also generally in excess except at Murree, Leh and Chakrata. Consequently the mean temperature of the hill stations was in excess except at Murree, Leh, Chakrata and Darjeeling. The following gives comparative data for the hill stations :—

STATION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, July 1900.	Mean minimum temperature, July 1900.	*Mean* temperature, July 1900.
	°	°	°
Cherat	+5·3	+3·8	+4·6
Ranikhet	+1·7	+1·1	+1·4
Mussooree	+1·2	+1·2	+1·2
Simla	+1·3	0	+0·7
Srinagar	+0·7	+0·5	+0·6
Leh	—3·1	—0·7	—1·9
Murree	+1·3	—1·6	—0·2
Chakrata	—0·3	—0·1	—0·2
Darjeeling	—0·8	+0·5	—0·2
Mount Abu	+6·5	+1·6	+4·1
Pachmarhi	+3·9	+1·8	+2·9
Wellington	+0·5	+0·6	+0·6

The above shows that at Mount Abu the temperature—more particularly the day temperature—was almost as largely in excess as at the neighbouring plains stations.

The principal abnormal features of the temperature conditions were as follows :—

(1) Both the mean maximum and the mean minimum temperatures and consequently the mean temperature were below the normal over a large part of North-East India.

(2) The maximum temperature was in trifling defect and the minimum temperature in slight excess over the extreme south of the Peninsula so that the mean temperature was in trifling excess.

(3) Over the remainder of India both the mean maximum and the mean minimum temperatures and consequently the mean temperature were in excess of the normal.

(4) The excess was greatest and large over North-West India.

The following table gives temperature data of the month for 56 meteorological divisions of India :—

PROVINCE.	DIVISION.	ACTUAL TEMPERATURE.					VARIATION FROM NORMAL OF MONTH OF		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
BURMA	Tenasserim	85·1	75·5	80·4	9·6	17·3	+1·3	+1·2	+0·1
	Lower Burma (Deltaic)	84·9	76·8	80·9	8·1	15·7	+0·4	+0·7	—0·3
	Central do.	88·3	75·5	81·9	12·8	20·5	+0·7	0	+0·7
	Upper do.	89·8	76·4	83·1	13·5	22·4	+0·6	+0·4	+0·2
	Arakan	85·2	73·8	79·5	11·4	19·4	...	...	...

Province.	Division.	Actual temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	
Bengal and Assam	Eastern Bengal	86·9	77·6	82·3	9·4	17·7	—0·2	0	—0·2
	Assam (Surma)	89·6	77·1	83·4	12·5	22·8	—0·4	0	—0·4
	Do. (Brahmaputra)	86·0	78·0	82·0	8·1	15·6	—3·1	—0·4	—2·7
	Deltaic Bengal	89·6	79·3	84·4	10·3	19·5	+0·8	+0·4	+0·4
	Central do.	89·9	78·7	84·3	11·2	20·8	+0·3	+0·2	+0·1
	North do.	87·6	77·0	82·3	10·6	21·4	—1·1	—0·4	—0·7
	Bengal Hills	68·9	54·6	61·7	14·3	21·3	—0·8	+0·5	—1·3
	Orissa	89·9	79·5	84·8	10·4	22·3	+1·5	+0·8	+0·7
	Chota Nagpur	89·3	77·0	83·1	12·3	25·3	+1·7	+1·8	—0·1
	Bihar (South)	91·9	79·6	85·8	12·3	28·8	+1·5	+0·5	+1·0
	Do. (North)	89·1	78·6	83·8	10·6	20·6	—1·2	—0·5	—0·7
North-Western Provinces and Oudh.	North-Western Provinces (East)	94·3	81·1	87·8	13·2	35·3	+2·9	+1·7	+1·2
	Oudh (South)	93·7	79·7	86·7	14·0	31·5	+1·7	+0·4	+1·3
	Do. (North)	92·3	78·9	85·6	13·4	32·6	+0·5	0	+0·5
	North-Western Provinces (Central)	96·1	81·3	88·7	14·8	34·3	+3·8	+2·2	+1·6
	Do. do. (West)	96·2	82·2	89·3	14·0	34·5	+3·2	+2·3	+0·9
	Do. do. (Submontane, East)	91·2	78·8	85·1	12·4	22·9	+0·3	—0·7	+1·0
	Do. do. (Submontane, West)	90·2	77·6	83·9	12·7	31·6	+0·6	+0·6	0
	Do. do. (Hills)	71·9	61·1	66·5	10·8	23·4	+0·9	+0·7	+0·2
Punjab	Punjab (South-East)	96·6	82·4	89·5	14·2	32·2	+2·6	+1·9	+0·7
	Do. (South)	94·8	80·5	87·7	14·3	37·0	...	...	...
	Do. (Central)	103·8	83·8	93·8	20·0	43·7	...	...	...
	Do. (Submontane)	97·4	81·4	89·4	15·9	41·5	+1·0	+2·2	—1·2
	Do. (Hills)	85·5	62·7	74·1	22·8	38·8	+1·1	+0·4	+0·7
	Do. (North)	103·6	79·8	91·7	23·8	45·8	+3·5	+1·8	+1·7
	Do. (West)	105·6	85·6	95·6	19·9	40·5	+3·4	+3·6	—0·2
Bombay and Malabar Coast Districts (Madras).	Malabar	83·0	74·8	78·9	8·3	14·4	+0·7	+0·9	—0·2
	Madras (South Central)	90·4	72·9	81·7	17·6	25·0	+0·1	+1·4	—1·3
	Coorg	69·5	63·4	66·5	6·1	14·3	+0·8	+1·2	—0·4
	Mysore	82·1	67·5	74·8	14·6	22·4	+1·5	+0·9	+0·6
	Konkan	84·4	77·3	80·9	7·0	14·4	+1·0	+1·5	—0·5
	Bombay Deccan	85·2	71·1	78·2	14·1	23·3	+2·1	+1·2	+0·9
	Hyderabad (North)	86·7	65·1	76·0	21·6	34·0	...	...	...
	Khandesh	88·4	72·5	80·5	15·9	25·9	+4·1	+1·1	+3·0
Central Provinces and Berar.	Berar	91·1	75·5	83·3	15·6	33·2	+3·7	+2·0	+1·7
	Central Provinces (West)	91·2	77·0	84·1	14·2	32·3	+4·4	+2·1	+2·3
	Do. (Central)	88·9	75·3	82·1	13·7	31·9	+3·5	+1·2	+2·3
	Do. (East)	89·4	77·2	83·3	12·2	24·0	+2·7	+1·2	+1·5
Bombay (North)	Gujarat	96·0	80·9	88·5	15·1	27·7	+7·2	+3·4	+3·8
	Kathiawar and Cutch	93·9	79·9	86·9	14·1	25·3	+4·7	+1·8	+2·9
	Sind	102·6	83·6	93·1	19·0	29·6	+3·3	+2·0	+1·3
	Baluchistan Hills	98·6	66·5	82·7	32·1	46·6	+2·3	+0·8	+1·5
Rajputana and Central India.	Central India (East)	92·4	77·7	85·0	14·7	33·9	+5·4	+2·5	+2·9
	Rajputana (East), Central India (West)	97·4	80·9	89·2	16·5	34·2	+6·9	+3·8	+3·1
	Do. (West)	103·2	83·2	93·2	19·9	31·9	+5·6	+5·5	+0·1
Madras	East Coast (North)	90·3	79·4	84·9	10·8	23·4	+1·0	+0·6	+0·4
	Hyderabad (South)	88·7	73·5	81·1	15·1	28·7	+1·0	+1·5	—0·5
	Madras (Central)	93·1	76·1	84·6	17·0	28·9	+1·3	+0·8	+0·5
	East Coast (Central)	95·0	78·8	86·9	16·2	29·9	+0·6	+0·1	+0·5
	Do. (South)	96·2	79·5	87·8	16·7	27·8	+0·8	+1·3	—0·5
	Madras (South)	93·6	76·7	85·2	16·9	24·6	—0·1	+0·2	—0·3

The following gives a summary of the more important features of the temperature conditions which obtained during the month :—

The temperature was rather unsteady during the month and the only well-marked periods were from the 1st to the 12th and again from the 20th to the 26th when unusually hot weather prevailed over a large part of the country.

At the commencement of the month temperature was more or less above the normal except in Assam. The following gives variation data for the 24 hours ending at 8 A.M. on the 1st in illustration :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 1st July.	Mean minimum temperature, 1st July.	Mean daily temperature, 1st July.
	°	°	°
Burma	+ 0·7	+0·6	+ 0·7
Assam	— 3·6	+0·1	— 1·8
Bengal	— 0·4	+2·2	+ 0·9
Orissa	+ 8·0	+4·9	+ 6·5
Bihar	+ 2·4	+2·5	+ 2·5
Chota Nagpur	+ 7·0	+3·6	+ 5·3
North-Western Provinces and Oudh	+11·7	+8·6	+10·2
Punjab	+11·8	+7·5	+ 9·7
Sind	+ 5·4	+2·2	+ 3·8
Rajputana	+10·6	+7·9	+ 9·3
Gujarat	+ 6·2	+2·5	+ 4·4
Central India	+13·9	+8·2	+11·1
Central Provinces	+13·1	+7·0	+10·1
Berar	+13·2	+4·9	+ 9·1
West Coast	+ 0·3	+0·9	+ 0·6
Bombay Deccan	+ 2·8	+2·3	+ 2·6
Mysore	— 0·4	+1·8	+ 0·7
Madras Coast	+ 4·7	+1·4	— 3·1
Madras Deccan	+ 2·8	+0·2	+ 1·5
South India	+ 0·6	+1·4	+ 1·0

For the next five days these conditions held practically uninterruptedly and the excess was very marked in the north-west. The following table gives data for those stations at which the mean temperature was 12° or more in excess from the 1st to the 5th :—

DATE.	STATION.	MEAN TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
1st July	Jhansi	104·1	88·2	+15·9
	Allahabad	101·4	87·1	+14·3
	Sutna	98·8	84·8	+14·0
	Sialkot	103·6	90·4	+13·2
	Cawnpore	99·0	86·0	+13·0
	Agra	103·0	90·0	+13·0
	Saugor	94·5	81·5	+13·0
	Nowgong	100·2	87·3	+12·9
	Meerut	100·1	87·5	+12·6
	Umballa	98·5	86·2	+12·3
	Hoshangabad	95·6	83·3	+12·3
	Mainpuri	99·6	87·4	+12·2
2nd "	Sialkot	105·6	89·6	+16·0
	Jhansi	102·8	87·4	+15·4
	Umballa	101·0	85·9	+15·1
	Sutna	99·1	84·3	+14·8
	Allahabad	101·2	86·7	+14·5
	Ludhiana	103·3	89·9	+13·4
	Jaipur	101·2	88·1	+13·1
	Sambhar	100·7	88·0	+12·7
	Nowgong	99·2	86·7	+12·5
	Cawnpore	98·8	86·4	+12·4
	Sirsa	104·2	92·2	+12·0
3rd "	Sialkot	105·8	89·1	+16·7
	Ludhiana	104·8	89·6	+15·2
	Lahore	105·0	90·7	+14·3
	Delhi	102·3	88·2	+14·1
	Agra	102·0	88·6	+13·4
	Jaipur	100·4	87·3	+13·1
	Allahabad	99·2	86·2	+13·0
	Rawalpindi	100·6	87·6	+13·0
	Umballa	98·8	85·9	+12·9
	Mainpuri	99·8	87·5	+12·3
4th "	Rawalpindi	102·1	87·7	+14·4
	Sialkot	102·8	89·1	+13·7
	Sirsa	104·2	91·3	+12·9
	Lahore	102·5	90·5	+12·0
5th "	Rawalpindi	100·1	87·7	+12·4

On the 5th thundershowers occurred over the central parts of the country and over the east of the Punjab. In both cases these showers were succeeded by a fall of

temperature, and areas of relative coolness were produced, one over the north and east of the Punjab, the other over the north of Madras and the adjoining parts of the Deccan and the Central Provinces. The following gives comparative data from the 5th to the 7th for certain stations in these two areas:—

Date.	Station.	Variation from normal of Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
5th July	Umballa	+ 0·5	—5·1	—2·3
	Cocanada	— 6·6	—2·2	—4·4
	Chanda	—10·2	—1·5	—5·9
6th "	Umballa	—11·5	—5·3	—8·4
	Ludhiana	— 8·2	—2·6	—5·4
	Cocanada	— 9·1	—2·9	—6·0
	Masulipatam	— 7·7	—2·8	—5·3
7th "	Umballa	— 7·1	—1·9	—4·5
	Delhi	— 3·4	—3·0	—3·2
	Masulipatam	— 6·3	—2·6	—4·5
	Cocanada	— 5·5	—1·8	—3·7

During this period, from the 1st to the 7th, the mean temperature remained uninterruptedly high over Khandesh, North Bombay, Rajputana and Central India, as is shown by the following comparative data for these areas:—

Province or Division.	Variation 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.
	°	°	°	°	°	°	°
Khandesh	+2·7	+2·2	+1·9	+2·8	+1·8	+2·1	+1·2
North Bombay	+ 4·1	+4·9	+4·0	+4·1	+3·8	+3·2	+3·6
Rajputana	+ 9·3	+10·8	+8·7	+8·3	+6·9	+5·7	+5·7
Central India	+11·1	+11·6	+9·9	+6·6	+5·5	+1·9	+5·1

This was the hottest period in the month over this part of North-West India and the following high maxima were recorded:—

Station.	Highest maximum temperature recorded in July 1900.	Date on which recorded.
	°	
Bikaner	112·9	2nd.
Kotah	112·6	2nd.
Jaipur	112·2	2nd.
Sambhar	111·0	2nd.
Nowgong	110·5	1st and 2nd.
Jodhpur	109·2	2nd.
Pachpadra	109·0	2nd.
Ajmer	108·9	2nd.
Sutna	108·6	1st.
Deesa	107·1	2nd.
Ahmedabad	106·3	3rd.
Rajkot	104·9	2nd.
Bhavnagar Para	104·1	4th.
Neemuch	103·5	2nd.
Udaipur	102·5	1st.
Indore	100·8	2nd.
Malegaon	96·9	6th.

On the 8th there occurred a burst of rain over the central parts of the country, and temperature fell rapidly over the Central Provinces, but in the Punjab temperature rose again to above the normal. The following gives comparative data from the 7th to the 13th for the Central Provinces and Berar:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 7th July.	8th July.	9th July.	10th July.	11th July.	12th July.	13th July.
	°	°	°	°	°	°	°
Central Provinces	+2·3	—0·1	—0·7	—1·7	—2·5	—1·6	+1·2
Berar	+6·2	—1·2	—4·8	—7·0	—4·3	—1·7	+0·9

During this period the mean temperature was generally above the normal over the whole of Northern India, though in the Punjab, where dust and thunderstorms rendered the weather unsettled, the temperature was rather

unsteady. The following gives data for the different districts of Northern India :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	7th July.	8th July.	9th July.	10th July.	11th July.	12th July.	13th July.
	°	°	°	°	°	°	°
Bengal	+1·6	+2·0	+1·7	+0·7	+1·0	+1·7	+1·0
Orissa	—1·8	—0·1	+0·2	+1·5	+0·8	+0·8	—1·5
Bihar	+1·6	+2·5	+2·3	+2·5	+2·1	+1·8	+1·2
Chota Nagpur	+0·2	+1·0	+1·2	+1·5	+1·8	+1·2	+1·3
North-Western Provinces and Oudh.	+1·3	+0·3	+4·2	+4·7	+1·5	+1·3	—1·0
Punjab	+0·2	+3·3	+4·9	+3·0	+0·2	—0·8	—0·4
Rajputana	+5·7	+5·6	+5·6	+6·6	+3·7	+1·0	+1·6
Central India	+5·1	+5·4	+3·9	+5·4	+1·0	—3·5	—1·5

Over the Peninsula the rainfall during the first-half of July was approximately normal and the mean temperature was in slight excess. The following gives data for each alternate day, from the 1st to the 13th, for the different divisions of Madras and Bombay :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	1st July.	3rd July.	5th July.	7th July.	9th July.	11th July.	13th July.
	°	°	°	°	°	°	°
Madras Coast	+3·1	+3·5	+0·8	+0·4	—0·1	+3·2	+1·1
Madras Deccan	+1·5	+1·3	+1·8	—0·1	—3·2	+2·2	+2·3
South India	+1·0	+0·8	+1·9	+1·1	+0·3	+1·7	+1·4
West Coast	+0·6	+3·3	+2·7	+0·2	—0·2	+1·6	+2·6
Bombay Deccan	+2·6	+1·2	+2·0	+1·5	+0·5	+05	+1·3
Mysore	+0·7	+0·5	+0·3	+0·1	+0·1	—0·5	+2·4

On the 14th when showers were exceedingly general except in the northern parts of the Bombay Presidency, there occurred a general fall of temperature and the mean temperature was normal or below the normal except in the north of Bombay and part of the Peninsula. The following gives comparative data for the whole country for the 24 hours ending at 8 A.M. on the 14th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 14th July.	Mean minimum temperature, 14th July.	Mean daily temperature, 14th July.
	°	°	°
Burma	—1·7	—0·3	—1·0
Assam	—0·3	+0·9	+0·3
Bengal	—0·2	—0·1	—0·2
Orissa	—5·6	—1·2	—3·4
Bihar	+1·0	+0·2	+0·6
Chota Nagpur	—0·4	—0·3	—0·4
North-Western Provinces and Oudh	—2·7	—0·2	—1·5
Punjab	—5·2	—2·5	—3·9
Sind	+7·2	+4·4	+5·8
Rajputana	—1·3	+0·1	—0·6
Gujarat	0	+1·1	+0·6
Central India	—2·0	—0·9	—1·5
Central Provinces	—0·4	0	—0·2
Berar	+1·9	—2·2	—0·2
West Coast	+1·7	+3·1	+2·4
Bombay Deccan	—0·1	—0·5	—0·3
Mysore	+2·8	+4·0	+3·4
Madras Coast	+2·6	+2·4	+2·5
Madras Deccan	+1·9	+1·9	+1·9
South India	—0·1	+0·6	+0·3

These conditions lasted during the 15th and 16th. On the 17th the Arabian Sea monsoon current began to show symptoms of weakness and the rainfall ceased on that day and the 18th over the Punjab, Rajputana, Gujarat, the Konkan and Khandesh. Temperature consequently rose except over Burma and, North-East India, and, as the break in the rains thus initiated lasted until the 25th, higher temperatures than usual were quickly established all over North-West and Central India and a large part of the Peninsula. The area of greatest excess of heat was re-established over the same region as it occupied before the burst of rainfall between the 10th and the 17th, *viz.*, over Gujarat, Rajputana, the Southern Punjab and the adjoining parts of Central India and of the North-Western Provinces. The following gives the two stations at

which the excess was greatest between the 18th and the 25th :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
18th July	Ahmedabad	+12·3	+ 3·5	+ 7·9
	Rajkot	+ 9·7	+ 4·0	+ 6·9
19th "	Ahmedabad	+13·1	+ 3·5	+ 8·3
	Khandwa	+ 8·9	+ 5·1	+ 7·0
20th "	Ahmedabad	+12·7	+ 5·2	+ 9·0
	Deesa	+11·5	+ 4·7	+ 8·1
21st "	Bikaner	+13·7	+ 7·3	+10·5
	Ahmedabad	+12·7	+ 6·4	+ 9·6
22nd "	Agra	+11·6	+ 7·7	+ 9·7
	Jhansi	+13·4	+ 5·2	+ 9·3
23rd "	Ahmedabad	+12·5	+ 7·2	+ 9·9
	Neemuch	+11·0	+ 6·7	+ 8·9
	Sialkot	+ 8·1	+ 9·7	+ 8·9
24th "	Agra	+12·4	+ 8·5	+10·5
	Ahmedabad	+12·5	+ 7·3	+ 9·9
25th "	Deesa	+15·2	+ 3·4	+ 9·3
	Bikaner	+ 8·2	+10·2	+ 9·2

The area of excessive temperature was at its greatest extent on the 24th when it embraced all parts of the country except Assam, Bengal, Bihar and the extreme south of the Peninsula. The following gives comparative data for all the divisions of India for the 24 hours ending at 8 A.M. on the 24th :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 24th July.	Mean minimum temperature, 24th July.	Mean daily temperature, 24th July.
	°	°	°
Burma	+ 3·6	+1·8	+2·7
Assam	— 7·2	—1·9	—4·6
Bengal	— 0·5	—0·9	—0·7
Orissa	+ 3·1	—0·9	+1·1
Bihar	— 6·3	—1·8	—4·1
Chota Nagpur	— 0·6	+1·3	+0·4
North-Western Provinces and Oudh	+ 3·4	+2·3	+2·9
Punjab	+ 4·0	+5·4	+4·7
Sind	+ 1·6	+1·5	+1·6
Rajputana	+10·5	+6·7	+8·6
Gujarat	+ 8·9	+3·8	+6·4
Central India	+ 9·1	+3·5	+6·3
Central Provinces	+ 3·5	+1·9	+2·7
Berar	+ 4·4	+1·6	+3·0
West Coast	+ 1·3	+0·2	+0·8
Bombay Deccan	+ 4·6	+1·0	+2·8
Mysore	+ 4·7	+1·4	+3·1
Madras Coast	— 1·0	—0·5	—0·8
Madras Deccan	+ 1·7	—0·2	+0·8
South India	— 2·1	—1·5	—1·8

During this week of excessive heat the following high maximum temperatures were recorded over North-West India :—

Date.	Station.	Highest maximum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
18th July	Jacobabad	110·8	107·4	+ 3·4
	Bikaner	104·1	99·7	+ 4·4
19th "	Jacobabad	108·9	107·6	+ 1·3
	Peshawar	106·0	103·5	+ 2·5
20th "	Jacobabad	108·4	107·6	+ 0·8
	Dera Ismail Khan	106·7	103·1	+ 3·6
21st "	Jacobabad	108·4	107·1	+ 1·3
	Montgomery	106·0	104·9	+ 1·1
22nd "	Jacobabad	110·3	106·8	+ 3·5
	Dera Ismail Khan	107·7	103·2	+ 4·5
23rd "	Peshawar	108·0	102·4	+ 5·6
	Jacobabad	107·9	106·7	+ 1·2
24th "	Peshawar	109·0	102·5	+ 6·5
	Jacobabad	107·4	106·3	+ 1·1
25th "	Jacobabad	109·3	106·0	+ 3·3
	Lahore	109·1	97·9	+11·2

In Burma there was general rain from the 1st to the 17th and the mean temperature was normal or below it. On the 18th rain began to take off and an area of excessive temperature appeared over Tenasserim and advanced northward over Burma. This continued until the 25th when rain recommenced and the temperature fell. The following gives comparative data for this province from the 18th to the 25th :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	18th July.	19th July.	20th July.	21st July.	22nd July.	23rd July.	24th July.	25th July
	°	°	°	°	°	°	°	°
Burma . . .	—0·2	+1·1	+1·7	+1·9	+0·5	+1·9	+2·7	+3·6

In the south and east of the Peninsula the temperature changes were directly related to the distribution of the showers which occurred at this time. On the 22nd showery weather was reported from Trincomalee and the mean temperature had fallen ½° to nearly 4° below the normal. These showers and low temperatures extended northward along the Madras Coast and by the 25th the heat was less than usual all over the south of the Peninsula. The following gives data for the three divisions of the Madras Coast, the Madras Deccan and South India from the 22nd to the 26th :—

Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	22nd July.	23rd July.	24th July.	25th July.	26th July.
	°	°	°	°	°
Madras Coast	+1·1	—0·6	—0·8	—1·4	—0·2
Madras Deccan . . .	+2·0	+1·6	+0·8	—0·2	+2·2
South India	+1·6	+0·7	—1·8	—2·0	—0·5

On the 26th heavyish rain commenced along the West Coast and extended rapidly northwards into Gujarat, Kathiawar and Rajputana, and became fairly general throughout the whole area dependent on the Bombay current for its rainfall. At the same time a storm formed over the north of the Bay and advanced to Orissa by the 31st giving heavy rain to the coast districts of North Madras and Bengal. The influence of this more general rainfall was at once shown in the temperature conditions. This is shown in the following table which gives the temperature changes in each period of 24 hours ending at 8 A.M. on the 27th and 28th for the different provinces of India :—

Province or Division.	Mean temperature change in 24 hours preceding 8 A.M. of	
	27th July.	28th July.
	°	°
Burma	+0·7	+0·6
Assam	—1·1	—0·1
Bengal	—3·5	+1·7
Orissa	—0·5	—2·0
Bihar	—0·3	—0·9
Chota Nagpur	—2·7	—0·3
North-Western Provinces and Oudh. .	+2·6	—3·7
Punjab	+2·4	—0·3
Sind	+3·1	+0·6
Rajputana	+3·9	—1·1
Gujarat	+0·7	—4·1
Central India	+0·4	—1·5
Central Provinces	—2·1	—1·6
Berar	—0·3	—5·4
West Coast	—1·0	—0·8
Bombay Deccan	—0·1	—1·6
Mysore	—2·0	—2·2
Madras Coast	—1·8	+0·7
Madras Deccan	—2·3	+1·5
South India	—2·0	0

The above shows that the north-west of India was the last to be affected, and the following table shows that from the 26th to the end of the month, the mean temperature was generally more or less excessive over all the divisions of North-Western and Central India :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	26th July.	27th July.	28th July.	29th July.	30th July.	31st July.
	°	°	°	°	°	°
North-Western Provinces and Oudh.	+0·8	+3·5	—0·2	+1·7	+0·2	—0·5
Punjab . . .	+2·9	+5·3	+5·0	+0·8	+3·3	+1·9
Sind	+3·6	+6·7	+7·3	+3·9	+2·7	+3·8
Rajputana . . .	+2·8	+6·7	+5·6	+3·9	+4·5	+4·1
Gujarat . . .	+6·9	+7·6	+3·5	+1·0	—0·7	—1·7
Central India . .	+4·4	+4·8	+3·3	+4·3	+4·4	+2·7
Central Provinces. .	+6·1	+4·0	+2·4	+3·8	+3·7	+2·1
Berar	+7·7	+7·4	+2·0	+3·5	+1·8	+1·1

From the 26th onward the weather was particularly showery along the line of the Himalayas and the mean temperature in the North-Western Provinces, Bihar

Bengal and Assam was generally below the normal until the 31st when a brisk rise of temperature occurred in Assam and Bihar and the mean temperature again exceeded the normal in North-Eastern India. The following gives data for these areas from the 26th to the 31st :—

PROVINCE.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	26th July.	27th July.	28th July.	29th July.	30th July.	31st July.
	°	°	°	°	°	°
North-Western Provinces and Oudh.	+0·8	+3·5	—0·21	+1·7	+0·2	—0·5
Bengal . . .	+2·1	—1·4	+0·3	+1·6	+2·1	+1·5
Bihar	+2·4	+2·1	+1·2	+0·6	—2·3	+1·7
Assam . . .	—0·5	—1·6	—1·7	—1·4	+1·1	+2·8

On the 27th showers were very general over the south of the Peninsula and the mean temperature below the normal, and with a brief temporary interruption on the 29th these conditions lasted until the close of the month. This is shown below:—

DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	27th July.	28th July.	29th July.	30th July.	31st July.
	°	°	°	°	°
Madras Deccan	—0·1	+1·4	+0·5	+0·4	—5·4
Madras Coast	—2·0	—1·3	+1·0	—0·3	—3·2
South India	—2·5	—2·5	—1·3	—0·2	—0·4

Thus at the close of the month the principal abnormal features in the temperature conditions were: (1) an excess of temperature over nearly the whole of North-Western and Central India, (2) a slight deficiency along the line of the Himalayas in the Punjab and the North-Western Provinces, and (3) a moderate to large deficiency over a large part of the Peninsula. The following gives comparative data for the 24 hours ending at 8 A.M. on the 31st :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 31st July.	Mean minimum temperature, 31st July.	Mean daily temperature, 31st July.
	°	°	°
Burma	—0·9	—0·4	—0·7
Assam	+3·2	+2·4	+2·8
Bengal	+3·0	—0·1	+1·5
Orissa	+1·7	+0·2	+1·0
Bihar	+2·7	+0·7	+1·7
Chota Nagpur	+1·5	+0·7	+1·1
North-Western Provinces and Oudh.	—0·6	—0·3	—0·5
Punjab	+4·3	—0·5	+1·9
Sind	+4·5	+3·0	+3·8
Rajputana	+4·4	+3·8	+4·1
Gujarat	—3·1	—0·2	—1·7
Central India	+3·6	+1·8	+2·7
Central Provinces . . .	+3·0	+1·2	+2·1
Berar	+1·8	+0·3	+1·1
West Coast	—0·3	+1·6	+0·7
Bombay Deccan . . .	—3·5	+0·5	—1·5
Mysore	—0·4	+2·1	+0·9
Madras Coast	—3·7	—2·7	—3·2
Madras Deccan . . .	—8·8	—2·0	—5·4
South India	—2·9	+2·1	—0·4

The following gives the variation data of the mean temperature, week by week, during the month and for the whole month :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE FOR WEEK ENDING				
	7th July.	14th July.	21st July.	28th July.	For whole month, July 1900.
	°	°	°	°	°
Burma . . .	0	—0·2	0	+1·5	+0·7
Assam . . .	—1·1	+0·1	—2·4	—2·5	—1·3
Bengal . . .	0	+1·1	—1·3	—0·5	+0·1
Orissa . . .	+2·5	—0·2	+0·6	+1·5	+1·2
Bihar	+0·1	+1·9	—1·0	—0·5	+0·1
Chota Nagpur . .	+3·6	+1·1	+0·3	+1·6	+1·8
North-Western Provinces and Oudh.	+5·4	+1·4	—1·4	+2·2	+1·7
Punjab . . .	+6·9	+1·2	—1·0	+4·5	+2·6
Sind	+2·2	+2·6	+1·7	+3·4	+2·7
Rajputana . .	+7·9	+3·4	+4·4	+6·6	+5·4
Gujarat . . .	+4·1	+3·1	+4·3	+5·9	+4·0
Central India . .	+7·4	+1·3	+1·7	+5·3	+4·0
Central Provinces .	+5·8	—0·8	+1·5	+3·5	+2·6
Berar	+7·4	—2·6	+2·7	+4·0	+2·9
West Coast . .	+1·9	+1·5	+0·7	+0·8	+1·1
Bombay Deccan . .	+2·0	+0·3	+1·4	+3·6	+1·9
Mysore . . .	+0·4	+1·1	+1·8	+1·9	+1·2
Madras Coast . .	+2·0	+1·7	+0·8	—0·7	+0·8
Madras Deccan . .	+1·5	+1·4	+1·5	+1·1	+1·2
South India . .	+1·3	+0·9	+1·1	—1·0	+0·5

Winds.

The monsoon over the centre of the Bay was less steady than usual, but was stronger and more westerly than the average in direction. The following gives comparative data for Port Blair :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Westerly deflection.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°	°			
Port Blair .	77	87	−10	S 56 W	S 47 W	+9	294	268	+26

On the Burma coast the winds were fairly normal in direction and, except at Diamond Island, were lighter than usual in force. On the other hand, at the Bengal coast stations the direction was considerably more southerly than the normal. The following gives comparative direction data for the coast stations of Burma and Bengal :—

STATION.	MEAN WIND DIRECTION.	
	Actual, July 1900.	Normal, July.
	°	°
Rangoon	S 42 W	S 34 W
Diamond Island	S 37 W	S 42 W
Akyab	S 2 E	S 1 W
Chittagong	S 7 E	S 30 E
Saugor Island	S 5 E	S 21 W
False Point	S 26 W	S 53 W

The steadiness of the winds and the mean force varied irregularly from the average. The following gives data regarding velocity and steadiness :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PERDIEM.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Rangoon . .	79	74	+ 5	115	129	−14
Diamond Island	71	80	− 9	261	240	+21
Akyab . .	77	67	+10	56	98	−42
Chittagong .	63	66	− 3	196	165	+31
Calcutta . .	68	63	+ 5	122	122	0
Saugor Island .	69	60	+ 9	374	357	+17
False Point .	48	63	−15	235	277	−42

In the interior of Bengal the wind's velocity was normal or less than usual, but the wind was somewhat steadier than the average. At Allahabad the wind was abnormally northerly and was steadier and stronger than usual. The following gives data for this station :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Northerly deflection.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°	°			
Allahabad.	15	7	+ 8	N 16 E	N 71 E	+55	209	151	+58

In the lower part of the Sub-Himalayas division the wind direction was more and in the upper part less easterly than usual, while the velocity throughout was generally above the normal. This is shown below :—

STATION.	MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, July 1900.	Normal, July.	Easterly deflection.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	°	°	°			
Dehra Dun .	S 44 E	S 12 W	+56	29	26	+ 3
Roorkee . .	S 40 E	S 37 E	+ 3	94	70	+24
Meerut . .	S 54 E	S 69 E	−15	32	57	−25
Lahore . .	S 56 E	S 77 E	−21	104	80	+24
Ludhiana .	S 31 E	S 40 E	− 9	93	52	+41

At Peshawar the wind was lighter and less steady than usual, while the mean direction departed considerably from the normal. On the other hand, at the two other stations in the Indus Valley, at Jacobabad and Kurrachee, the general conditions were approximately normal. This is shown as follows :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Actual, July 1900	Normal, July.	Variation of actual from normal, July 1900.
				°	°			
Peshawar . .	43	47	− 4	N 1 W	N 49 E	65	107	−42
Jacobabad . .	68	59	+ 9	S 36 E	S 41 E	119	133	−14
Kurrachee . .	92	85	+ 7	S 69 W	S 68 W	449	415	+31

In Eastern Rajputana the wind was much steadier than usual, but was lighter and more southerly than the average, while, on the contrary, in Southern Rajputana the wind was stronger, more steady and more westerly than usual. The following gives data for Jaipur and Deesa :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual July 1900.	Normal, July.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°			
Jaipur . .	63	28	+35	S 82 W	N 72 W	124	133	— 9
Deesa . . .	78	73	+ 5	S 68 W	S 42 W	408	351	+57

In the following table are given comparative data for the winds in the Bay Islands, Burma and the different divisions of Northern India for the month :—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°			
Bay Islands .	77	87	—10	S 56 W	S 47 W	294	268	+26
Burma . .	76	74	+ 2	S 28 W	S 28 W	144	156	—12
Bengal . .	67	63	+ 4	S 10 E	S 4 E	231	215	+16
Orissa . .	48	63	—15	S 26 W	S 53 W	235	277	—42
Chota Nagpur .	16	14	+ 2	S 20 W	S 9 E	179	210	—31
Bihar . .	61	56	+ 5	S 71 E	S 77 E	80	121	—41
North-Western Provinces.	28	19	+ 9	S 65 E	S 50 E	91	76	+15
Punjab . .	41	33	+ 8	S 67 E	S 82 E	87	80	+ 7
Rajputana . .	71	51	+20	S 75 W	S 76 W	266	242	+24
Sind . . .	80	72	+ 8	S 69 W	S 10 W	284	274	+10

Winds were approximately normal in direction in the Deccan. They varied irregularly in velocity from the normal, but on the mean of the whole region were approximately of average strength. The steadiness, on the other hand, was generally less than usual. This is shown by the following data :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Westerly deflection.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°	°			
Belgaum .	83	87	— 4	S 83 W	S 68 W	+15	527	647	—120
Sholapur .	80	83	— 3	S 65 W	S 76 W	—11	247	336	— 89
Poona .	80	90	—10	S 82 W	S 81 W	+ 1	453	386	+ 67
Akola .	63	73	—10	N 83 W	N 74 W	+ 9	343	210	+133
Buldana .	82	74	+ 8	N 80 W	N 79 W	+ 1	276	219	+ 57
Khandwa .	66	82	—16	N 78 W	N 85 W	— 7	250	217	+ 33
Nagpur .	60	69	— 9	S 85 W	S 88 W	— 3	219	243	— 24
Hyderabad (Deccan).	76	90	—14	N 80 W	N 86 W	— 6	207	249	— 42

The wind direction was very nearly normal at Bombay and Karwar, but at the former station the velocity was considerably less and at the latter station considerably more than usual. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Westerly deflection.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°	°			
Bombay .	77	85	— 8	S 78 W	S 74 W	+ 4	360	450	—90
Karwar .	85	75	+10	S 79 W	S 73 W	+ 6	181	123	+58

It will be noticed that, while the wind velocity at Bombay was considerably below the normal on the mean of the month, the velocity at the Central Provinces, Berar, Central India and Rajputana stations was as considerably above. This contrast between the wind velocities at the Bombay coast stations and at the inland stations was very remarkable and was due to the excessive heat and consequent

thermal actions in the interior of the country. The following gives fuller details of this contrast :—

STATION.	MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Bombay	360	450	— 90
Ratnagiri	187	329	—142
Surat	180	377	—197
Deesa	408	351	+ 57
Malegaon	338	283	+ 55
Ajmer	238	166	+ 72
Poona	453	386	+ 67
Akola	343	210	+133
Buldana	276	219	+ 57
Khandwa	250	217	+ 33
Bhuj	518	398	+120

The above data show that, while the winds at Bombay were 20 per cent. below their normal strength, at the inland stations they were from 15 per cent. to 63 per cent. above.

In South India the winds were approximately normal, as is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°			
Salem	76	78	— 2	S 31 E	S 55 W	125	108	+17
Chitaldroog	85	87	— 2	S 74 W	S 78 W	278	291	—13
Bangalore	85	91	— 6	S 64 W	S 73 W	268	217	+51
Hassan	89	90	— 1	S 85 W	S 89 W	114	125	—11
Mysore	89	91	— 2	S 75 W	S 77 W	333	368	—35
Madras	61	67	— 6	S 67 W	S 48 W	174	191	—17
Bellary	79	88	— 9	S 85 W	S 87 W	296	282	+14

The following gives comparative data of the mean wind direction, velocity and steadiness for the different divisions of the Peninsula :—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, July 1900.	Normal percentage, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
				°	°			
Central Provinces	63	76	—13	N 87 W	N 87 W	235	230	+ 5
Berar	73	74	— 1	N 82 W	N 77 W	310	215	+95
Bombay Deccan	81	87	— 6	S 77 W	S 75 W	409	456	—47
Madras Deccan	78	89	—11	N 87 W	W	252	266	—14
West Coast	81	80	+ 1	S 79 W	S 74 W	271	287	—16
Mysore	87	90	— 3	S 75 W	S 79 W	248	250	— 2
Madras Coast	61	67	— 6	S 67 W	S 48 W	174	191	—17
South India	76	78	— 2	S 31 E	S 55 W	125	108	+17

The winds were lighter than usual at the hill stations in Baluchistan, Kashmir and Lahoul. This is shown by the following data :—

STATION.	MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Quetta	41	91	—50
Srinagar	87	93	— 6
Kailang	43	49	— 6

The wind directions in this area varied irregularly from the normal, the principal abnormal feature having been the increased westing at Srinagar. The following gives data :—

STATION.	MEAN WIND DIRECTION.		
	Actual, July 1900.	Normal, July.	Westerly deflection.
	°	°	°
Quetta	N 77 W	S 85 W	...
Srinagar	N 82 W	N 20 W	+62
Kailang	S 83 W	S 81 W	+ 2

At the hill stations in the Kumaun Himalayas, unlike those further to the westward, the wind was considerably stronger than the average. Here also the wind's direction was generally more westerly than the average. The following gives data of velocity and direction for Ranikhet :—

Station.	Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual, July 1900.	Normal, July.	Actual, July 1900.	Normal July.	Variation of actual from normal, July 1900.
	°	°			
Ranikhet . . .	N 85 W	S 62 W	90	59	+31

At Katmandu the wind direction was more, and at Darjeeling less, easterly than usual. This is shown below :—

Station.	Mean wind direction.	
	Actual, July 1900.	Normal, July.
	°	°
Katmandu	S 70 E	S 67 W
Darjeeling	S 42 E	S 75 E

At the hill stations in Rajputana and the Central Provinces the wind velocity was slightly above the normal, but to a less extent than at stations on the plains in the neighbourhood. The following gives comparative data :—

Station.	Mean wind velocity in miles per diem.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Mount Abu	321	278	+43
Pachmarhi.	259	252	+ 7

In the Gulf of Aden the wind was more westerly than usual and lighter in force. The following gives comparative data :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, July 1900.	Normal, July.	Westerly deflection.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	°	°	°			
Aden	S 10 W	S 1 E	+11	227	261	−34
Perim	N 78 W	N 56 W	+22	351	386	−35

Both at Zanzibar and at the Seychelles the wind was abnormally easterly. At the former station the velocity was less than usual while at the latter it was exactly normal. The following gives data :—

Station.	Mean wind directon.			Mean wind velocity in miles per diem.		
	Actual, July 1900.	Normal, July.	Easterly deflection.	Actual, July 1900.	Normal July.	Variation of actual from normal, July 1900.
	°	°	°			
Zanzibar . . .	S 10 E	S 5 E	+ 5	147	207	−60
Seychelles . . .	S 42 E	S 29 E	+13	286	287	− 1

The following summarises the chief features of the air movement over India, etc. :—

(1) The Bay current was stronger than usual on the mean of the whole month.

(2) The wind was slightly more easterly than usual and slightly more steady over Lower Bengal.

(3) It was also more easterly than usual in the Upper Gangetic Plain.

(4) The Bombay monsoon current was apparently below the normal on the North Konkan coast.

(5) The winds were remarkably strong over Berar and part of the Bombay Deccan.

(6) They were fairly normal in Southern India.

(7) They were more easterly than usual in the South-East Trades region.

The following gives comparative data of the mean air movement for the various provinces based on Table I :—

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Burma	122	118	+ 4
Assam	74	79	— 5
Bengal	110	163	— 53
Orissa	163	166	— 3
Bihar	118	86	+ 32
Chota Nagpur	108	202	— 94
North-Western Provinces and Oudh	86	89	— 3
Punjab	130	79	+ 51
Sind	319	295	+ 24
Rajputana	242	214	+ 28
Gujarat	274	374	—100
Central India	180	197	— 17
Central Provinces	142	161	— 19
Berar	290	192	+ 98
West Coast	228	288	— 60
Bombay Deccan	365	413	— 48
Mysore	250	206	+ 44
Madras Coast	245	218	+ 27
Madras Deccan	288	278	+ 10
South India	168	139	+ 29

Humidity and Cloud.

The mean humidity conditions of the month were normal at the Bay Islands and on the Burma coasts. The amount of aqueous vapour present in the air was larger than usual, but the mean temperature was, at the same time, excessive. The following gives data for this area :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Port Blair	·931	·898	+·033	84	85	—1
Rangoon	·902	·886	+·016	90	90	0
Diamond Island	·886	·877	+·009	85	87	—2

In Deltaic Bengal the mean humidity was in slight defect, an effect of higher temperature than usual, as the vapour tension was as high as usual. In Orissa the amount of aqueous vapour was in considerable excess, and, notwithstanding that the temperature was above the normal, the relative humidity was higher than usual. The following gives data for the stations around the head of the Bay :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Chittagong	·914	·914	0	86	87	—1
Calcutta	·984	·962	+·022	85	87	—2
Saugor Island	·999	·997	+·002	85	86	—1
False Point	·988	·938	+·050	86	85	+1

The air was slightly to considerably drier than usual over the Gangetic Plain and the Upper Sub-Himalayas division with the local exception of Darbhanga. This was

in part an effect of diminished vapour tension and in part of increased temperature. This is shown below:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Hazaribagh	·791	·811	—·020	79	85	—6
Darbhanga	·982	·968	+·014	86	83	+3
Allahabad	·908	·951	—·043	73	81	—8
Dehra Dun	·801	·803	—·002	81	84	—3
Roorkee	·853	·872	—·019	73	76	—3
Meerut	·892	·887	+·005	74	74	0
Lahore	·832	·854	—·022	58	61	—3
Ludhiana	·825	·867	—·042	64	69	—5

In the Indus Valley the amount of aqueous vapour present in the air was considerably greater than usual, but the mean temperature was also in considerable excess and the relative humidity was consequently in defect. The following gives data for the three stations in this area:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Peshawar	·728	·727	+·001	50	53	—3
Jacobabad	·882	·816	+·066	51	52	—1
Kurrachee	·945	·929	+·016	73	78	—5

In Rajputana where there was no important rainfall until quite the close of the month the air was drier than usual, while the mean temperature was in considerable t large excess, so that the relative humidity was in larg defect in this area. The following gives data for thi province:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal July 1900.
	"	"	"	%	%	
Jaipur	·788	·838	—·050	62	74	—12
Deesa	·762	·828	—·066	58	74	—16

The following gives the mean humidity conditions o each of the divisions of Northern India and the Bay Island and Burma. The data indicate that the amount of th deficiency in the humidity increased inland and wa greatest over the interior of North-West India:—

Province or Division.	Mean absolute humidity.			Mean relative humidity		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actua from normal, July 1900.
	"	"	"	%	%	
Bay Islands	·931	·898	+·033	84	85	—1
Burma	·894	·881	+·013	88	89	—1
Bengal	·866	·858	+·008	85	86	—1
Orissa	·988	·938	+·050	86	85	+1
Bihar	·982	·968	+·014	86	83	+3
Chota Nagpur	·791	·811	—·020	79	85	—6
North-Western Provinces.	·864	·879	—·015	75	79	—4
Punjab	·795	·816	—·021	57	61	—4
Sind	·914	·873	+·041	62	65	—3
Rajputana	·775	·833	—·058	60	74	—14

The air was drier than usual over the greater part o the Deccan—particularly over the western districts of th Central Provinces. The amount of aqueous vapour in th air was generally in excess over this area, but, on the othe

hand, the mean temperature was considerably higher than usual. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, July 1900.	Normal, July.	Variation of actual, from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Belgaum . . .	·690	·669	+·021	89	90	—1
Sholapur . . .	·684	·664	+·020	67	68	—1
Poona . . .	·730	·698	+·032	79	80	—1
Akola . . .	·783	·768	+·015	72	75	—3
Buldana . . .	·691	·709	—·018	73	79	—6
Khandwa . . .	·789	·781	+·008	72	77	—5
Nagpur . . .	·829	·813	+·016	80	80	0
Hyderabad (Deccan) .	·741	·713	+·028	75	73	+2

In the same way the heat was excessive along the West Coast, so that though the vapour tension was greater than usual, the relative humidity was in defect. The following gives data for these two stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Bombay . . .	·927	·907	+·020	84	87	—3
Karwar . . .	·838	·832	+·006	84	86	—2

In South India the excess in the amount of aqueous vapour in the air was greater than in the Deccan, so that, though the mean temperature in this area also was in excess of the normal, the relative humidity exceeded the average at several stations. Bellary formed a doubtful exception as at that station the absolute and relative humidities were both in considerable defect. The following gives data for the stations in South India :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Vatiation of actual from normal, July 1900.
	"	"	"	%	%	
Salem . . .	·751	·746	+·005	70	71	—1
Chitaldroog . .	·656	·623	+·033	76	76	0
Bangalore . .	·632	·609	+·023	78	77	+1
Hassan . .	·637	·589	+·048	84	81	+3
Mysore . .	·644	·608	+·036	77	75	+2
Madras . .	·814	·793	+·021	67	67	0
Bellary . . .	·571	·658	—·087	53	63	—10

The following table shows the mean humidity conditions of the month for the different provinces of the Peninsula :—

DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Central Provinces .	·809	·797	+·012	76	79	—3
Berar . . .	·737	·739	—·002	73	78	—5
Bombay Deccan .	·701	·677	+·024	78	79	—1
Madras Deccan .	·656	·686	—·030	64	68	—4
West Coast . .	·883	·870	+·013	84	87	—3
Madras Coast .	·814	·793	+·021	67	67	0
Mysore . .	·642	·607	+·035	79	77	+2
South India . .	·751	·746	+·005	70	71	—1

At the hill stations in Kashmir, the relative humidity was in local excess. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Leh . . .	·275	·256	+·019	50	45	+5
Srinagar . .	·750	·658	+·092	86	78	+8
Kailang . .	·356	·358	—·002	68	66	+2

At the remaining hill stations in Northern India as well as at those in the central parts of the country the air was generally drier than the average. The deficiency was greatest and considerable at Mount Abu and Chikalda where the amount of aqueous vapour in the air was low and the mean temperature was higher than the average. The following gives data:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Chakrata	·512	·546	—·034	87	91	— 4
Ranikhet	·585	·581	+·004	85	86	— 1
Katmandu	·697	·688	+·009	83	80	+ 3
Darjeeling	·530	·519	+·011	95	95	0
Mount Abu	·619	·636	—·017	77	89	—12
Pachmarhi	·719	·671	+·048	88	88	0
Chikalda	·654	·655	—·001	84	92	— 8

At Aden the relative humidity was less, and at Perim greater, than usual, while in the South-East Trades region the air contained more aqueous vapour than usual and the relative humidity was in excess. The following gives data for Zanzibar, Seychelles and Mauritius:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
	"	"	"	%	%	
Zanzibar	·713	·690	+·023	79	78	+1
Seychelles	·743	·705	+·038	77	74	+3
Mauritius	·497	?	?	75	74	+1

The chief abnormal features of the humidity conditions of the month were:—

(1) Nearly normal conditions over the Bay area.

(2) Slight excess over Mysore.

(3) Slight to considerable deficiency over the remainder of India due in part to the prevailing high temperature.

(4) Large deficiency in Rajputana due to high temperatures and less aqueous vapour than usual in the air.

The variations of the mean cloud amount from the normal agreed roughly in character with those of the relative humidity. Cloud was in considerable defect over North-West India, particularly in the interior districts, was nearly normal over North-East India and the Bay area, and was in local excess over parts of Madras and Mysore.

There was a trifling excess of cloud at most of the coast stations around the Bay, but at Saugor Island, Calcutta and Akyab the cloud amount was exactly normal, and at Rangoon it was in slight defect. The following gives data:—

Station.	Mean cloud amount.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Rangoon	8·3	9·0	—0·7
Diamond Island	8·9	8·2	+0·7
Akyab	8·7	8·7	0
Chittagong	8·8	7·9	+0·9
Calcutta	8·3	8·3	0
Saugor Island	8·2	8·2	0
False Point	8·9	8·2	+0·7

In the Gangetic Plain and as far north-west as Roorkee and Meerut the sky was more cloudy than usual. The following gives data:—

Station.	Mean cloud amount.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Hazaribagh	10·0	9·3	+0·7
Darbhanga	6·8	6·3	+0·5
Allahabad	7·9	7·8	+0·1
Roorkee	6·8	6·4	+0·4
Meerut	8·1	6·7	+1·4

To the westward of Meerut, *i.e.*, in the Punjab, Rajputana and Sind the sky was abnormally clear—more parti-

cularly in Sind and Rajputana. The following gives comparative data :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Lahore	2·3	4·3	—2·0
Ludhiana	4·7	6·0	—1·3
Peshawar	2·5	2·9	—0·4
Jacobabad	0·6	2·3	—1·7
Kurrachee	3·8	6·9	—3·1
Jaipur	5·0	7·4	—2·4
Deesa	6·2	8·1	—1·9

In the following table is given the variation in the cloud amount on the mean of the month for the different provinces of Northern India :—

PROVINCE OR DIVISION.	MEAN CLOUD AMOUNT.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Bay Islands	8·0	7·6	+0·4
Burma	8·6	8·6	0
Bengal	8·4	8·1	+0·3
Orissa	8·9	8·2	+0·7
Bihar	6·8	6·3	+0·5
Chota Nagpur	10·0	9·3	+0·7
North-Western Provinces	7·4	7·2	+0·2
Punjab	3·2	4·4	—1·2
Rajputana	5·6	7·8	—2·2
Sind	2·2	4·6	—2·4

In the Deccan the cloud was generally in slight defect but at Sholapur, Buldana and Hyderabad it was in excess. The following gives data :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Belgaum	9·0	9·1	—0·1
Sholapur	9·0	8·5	+0·5
Poona	8·6	8·9	—0·3
Akola	8·1	8·5	—0·4
Buldana	9·2	8·1	+1·1
Khandwa	7·6	7·9	—0·3
Nagpur	8·7	8·7	0
Hyderabad (Deccan)	7·9	7·4	+0·5

At Bombay (—0·3) the cloud amount was in slight defect and at Karwar (+1·1) in considerable excess of the normal, while all over South India the sky was more cloudy than usual. The excess was greatest at Bangalore. The following gives comparative data for the stations in South India :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Salem	7·4	6·4	+1·0
Mysore	9·8	8·9	+0·9
Bangalore	8·5	6·8	+1·7
Chitaldroog	9·2	9·1	+0·1
Hassan	9·4	9·2	+0·2
Madras	8·3	7·2	+1·1
Bellary	9·3	8·3	+1·0

The following table gives the mean cloud condition relatively to the normal for the different divisions of the Peninsula :—

DIVISION OR PROVINCE.	MEAN CLOUD AMOUNT.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Central Provinces	8·2	8·4	—0·2
Berar	8·7	8·3	+0·4
Bombay Deccan	8·9	8·9	0
West Coast	8·9	8·5	+0·4
Madras Deccan	8·6	7·8	+0·8
South India	7·4	6·4	+1·0
Mysore	9·2	8·5	+0·7
Madras Coast	8·3	7·2	+1·1

The sky was generally clearer than usual at the hill stations. This abnormal clearness was greatest at Chakrata where the sky was about 50% less covered than usual. At Wellington, on the other hand, there was some excess (+1·1).

The sky was constantly overcast during the month at Hazaribagh, and the cloud amount amounted to 9 or more

on the mean of the month at the following stations, for which comparative data are given below :—

Station.	Mean cloud amount.		
	Actual, July 1900.	Normal, July.	Variation of actual from normal, July 1900.
Hazaribagh	10·0	9·3	+0·7
Belgaum	9·0	9·1	−0·1
Sholapur	9·0	8·5	+0·5
Buldana	9·2	8·1	+1·1
Chitaldroog	9·2	9·1	+0·1
Hassan	9·4	9·2	+0·2
Mysore	9·8	8·9	+0·9
Bellary	9·3	8·3	+1·0

The mean cloud amount was lowest and less than 1·0 at Jacobabad (0·6).

The following gives the chief features of the cloud distribution of the month :—

(1) The cloud amount was in defect over nearly the whole of North-West India.

(2) The cloud deficiency was considerable over Sind, Rajputana and the South Punjab.

(3) Cloud was more or less above the average over the remainder of India.

(4) The excess was small except over Mysore and the Carnatic where it was moderate.

Rainfall.

The most marked features in the rainfall conditions of the month were: (1) the lightness of the rainfall from the Arabian Sea monsoon current during the first three weeks of the month, (2) the heaviness of the rainfall from this source during the last week, and (3) the comparative steadiness of the rainfall from the Bay current.

The Arabian Sea monsoon current was feeble on the Malabar and Bombay coasts during the first ten days of the month. During this period the rainfall was restricted to light or moderate showers, both along the coasts and in the Deccan, the Central Provinces, Berar and the eastern districts of Central India, while practically no rain fell in Gujarat, Rajputana and the western districts of Central India. About the 10th or 11th a change commenced. The fall of rain increased in the coast districts and extended into the interior. During this advance Gujarat, Eastern Rajputana, the South-East Punjab and the neighbouring districts of the North-Western Provinces and Central India received light to moderate rain. Rain continued to fall until the 17th, and was heavy over the South-East Punjab and the North-Western Provinces on the 15th and 16th. On the 17th the monsoon current exhibited signs of weakness along the West Coast, and, simultaneously, the rainfall practically ceased over the north-west of India. This break in the rains continued over North-West India until the 26th when the break was at its fullest extent and intensity. On the 27th the weather became unsettled along the West Coast and heavy rain set in over Malabar (Mangalore 7·20″). This burst of heavy rain extended rapidly northward along the coast and reached Gujarat, Kathiawar and Rajputana by the 29th.

The following gives daily mean rainfall for the coast districts from Malabar to Kathiawar from the 26th to the end of the month, and exhibits the northward extension of rain during this burst :—

District.	Average actual rainfall during 24 hours preceding 8 A.M. of						
	26th July.	27th July.	28th July.	29th July.	30th July	31st July.	Total rainfall of period 26th to 31st July.
	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
Malabar	0·36	3·57	1·10	1·24	0·51	1·10	7·88
South Canara	1·63	6·46	3·45	1·38	0·79	0·35	14·06
North Kanara	1·32	3·93	3·08	1·59	0·73	0·93	11·58
Savantvadi	0·93	6·28	8·90	1·57	1·59	0·54	19·81
Ratnagiri	0·58	1·06	5·26	1·84	1·05	0·83	10·62
Kolaba	0·73	0·53	1·92	3·87	1·65	3·61	12·31
Thana	0·46	0·21	0·35	2·36	1·47	1·94	6·79
Surat	0·06	0·10	1·35	1·18	4·10	3·45	10·24
Kathiawar	0·16	0·15	1·15	0·43	0·93	2·44	5·26
Cutch	0·06	0·04	0·92	0·90	0·35	0·14	2·41

In North-East India and Burma moderate daily rain occurred during the first half of the month. On the 12th

and 13th a slight storm formed over the Bay. This storm advanced north-westward into the western districts of the North-Western Provinces, and the rainfall which had previously been only moderate became heavier over Bengal and the Gangetic Plain. Rain continued to fall over this area after the dispersion of the storm until the 21st when dry weather set in over the Gangetic Plain, though rain continued to fall in Bengal till the 22nd. Rain then ceased over North-East India and the weather was fine until the 26th. Another storm formed over the Bay on the 27th and increased in intensity during the 28th, 29th and 30th. On the last date it advanced briskly north-westward, and on the morning of the 31st lay over Orissa. On this day the storm was giving heavy rain to the coast districts.

The periods of most general rain were hence :—

(1) The 1st to the 13th, when Bengal, Assam and Burma received daily moderate rain.

(2) The 16th to the 21st or 22nd, when Bengal and the Gangetic Plain received a moderate burst of rain from the second cyclonic storm of the month.

(3) The 11th to the 16th, when the West Coast and the interior of Western and North-Western India received moderate rain from a strongish burst of the Arabian Sea current.

(4) The 26th to the end of the month, when Western and North-Western India received the first general heavy rain of the season from a strong advance of monsoon winds over the Arabian Sea.

(5) The 28th to the 31st, when heavy rain recommenced around the north of the Bay, occasioned by the third cyclonic storm of the month.

The rainfall of the month was in excess in the following divisions :—Estern Bengal (+17 per cent.), Assam Surma (+16 per cent.), North Bengal (+17 per cent.), North Oudh (+28 per cent.), Malabar (+25 per cent.), Madras South Central (+103 per cent.), Madras Central (+82 per cent.), East Coast South (+49 per cent.), and Madras South (+62 per cent.); normal in the following divisions :—Upper Burma (—8 per cent.), Arakan (—9 per cent.), Assam Hills (—1 per cent.), Assam Brahmaputra (—5 per cent.), Deltaic Bengal (—10 per cent.), Central Bengal (—4 per cent.), Bengal Hills (—6 per cent.), Orissa (+1 per cent.), North Bihar (+7 per cent.), South Oudh (—7 per cent.), North-Western Provinces East Submontane (—6 per cent.), North-Western Provinces West Submontane (—1 per cent.), North-Western Provinces Hills (+3 per cent.), Punjab Submontane (+2 per cent.), Punjab Hills (+10 per cent.), North Punjab (—10 per cent.), Mysore (—8 per cent.), Konkan (—5 per cent.), Bombay Deccan and Khandesh (each +8 per cent.), Central Provinces West (—10 per cent.), East Coast North (—7 per cent.), and East Coast Central (+6 per cent.); and in defect in the following divisions :—Tenasserim (—37 per cent.), Lower Burma Deltaic (—13 per cent.), Central Burma (—11 per cent.), Chota Nagpur (—28 per cent.), South Bihar (—25 per cent.), North-Western Provinces East (—35 per cent.), North-Western Provinces Central (—36 per cent.), North-Western Provinces West (—34 per cent.), South-East Punjab (—43 per cent.), South Punjab (—31 per cent.), Central Punjab (—25 per cent.), West Punjab (—59 per cent.), Berar (—21 per cent.), Central Provinces Central (—11 per cent.), Central Provinces East (—14 per cent), Gujarat (—51 per cent.), Kathiawar and Baluchistan Hills (each —56 per cent.), Sind (—93 per cent.), Central India East, and Rajputana East, Central India West (each —19 per cent.), West Rajputana (—48 per cent.), and East Coast North (*a*) (—36 per cent.).

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

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, July 1900.	Average normal, July.	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim*	...	...	29·85	47·33	—17·48
	Lower Burma (Deltaic)*	...	...	20·34	23·40	— 3·06
	Central do.*	...	...	12·53	14·07	— 1·54
	Upper do.*	...	...	9·99	10·82	— 0·83
	Arakan*	...	...	44·09	48·28	— 4·19

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Province.	Division.	Number of rainy days: Average actual, July 1900.	Number of rainy days: Average normal, July.	Rainfall: Average actual, July 1900.	Rainfall: Average normal, July.	Rainfall: Variation of actual from normal, July 1900.
				Inches.	Inches.	Inches.
Bengal and Assam	Eastern Bengal	19·6	18·4	21·14	18·01	+ 3·13
	Assam (Surma)*	...	...	25·13	21·57	+ 3·56
	Do. (Hills) *	...	...	33·55	33·76	− 0·21
	Do. (Brahmaputra) *	...	...	14·38	15·19	− 0·81
	Deltaic Bengal	15·6	16·4	10·61	11·81	− 1·20
	Central do.	15·5	16·0	11·77	12·29	− 0·52
	North do.	19·9	16·7	23·04	19·68	+ 3·36
	Bengal Hills	25·9	24·2	33·46	35·47	− 2·01
	Orissa	12·8	14·2	11·78	11·67	+ 0·11
	Chota Nagpur	14·6	16·9	10·17	14·15	− 3·98
	Bihar (South)	12·9	14·0	9·16	12·25	− 3·09
	Do. (North)	15·8	14·4	14·53	13·60	+ 0·93
North-Western Provinces and Oudh.	North-Western Provinces (East)	11·7	13·3	7·65	11·83	− 4·18
	Oudh (South)	11·7	12·3	9·99	10·75	− 0·76
	Do. (North)	13·4	12·1	14·95	11·69	+ 3·26
	North-Western Provinces (Central)	10·5	12·3	7·56	11·79	− 4·23
	Do. do. (West)	8·3	9·5	5·84	8·85	− 3·01
	Do. do. (Submontane, East)	13·9	13·2	11·68	12·40	− 0·72
	Do. do. (Do. West)	13·4	12·7	14·58	14·66	− 0·08
	Do. do. (Hills)	18·1	18·4	17·55	17·03	+ 0·52
Punjab	Punjab (South-East)	5·6	7·8	4·40	7·72	− 3·32
	Do. (South)	4·6	5·1	3·36	4·87	− 1·51
	Do. (Central)	4·9	5·5	3·75	4·99	− 1·24
	Do. (Submontane)	8·6	8·4	9·45	9·22	+ 0·23
	Do. (Hills)	16·2	15·1	18·42	16·68	+ 1·74
	Do. (North)	5·5	4·8	3·76	4·17	− 0·41
	Do. (West)	1·7	3·0	1·06	2·57	− 1·51
Bombay and Malabar Coast Districts (Madras).	Malabar	27·5	26·8	44·18	35·45	+ 8·73
	Travancore	21·8	...	17·39	...	...
	Madras (South Central)	6·2	3·6	3·55	1·75	+ 1·80
	Coorg	26·6	...	35·87	..	...
	Mysore*	...	...	6·72	7·28	− 0·56
	Konkan	24·6	26·9	38·08	40·04	− 1·96
	Bombay Deccan	12·6	12·2	10·17	9·39	+ 0·78
	Khandesh	11·0	11·1	8·28	7·67	+ 0·61
Central Provinces and Berar.	Berar*	...	...	9·66	12·17	− 2·51
	Central Provinces (West)	15·0	15·4	12·47	13·81	− 1·34
	Do. do. (Central)	17·0	17·1	16·11	18·02	− 1·91
	Do. do. (East)	16·9	15·0	13·84	16·07	− 2·23
Bombay (North)	Gujarat	7·1	17·1	9·06	18·46	− 9·40
	Kathiawar and Cutch	4·8	11·5	5·49	12·39	− 6·90
	Sind	0·5	...	0·13	1·86	− 1·73
	Baluchistan Hills	1·1	...	0·44	0·99	− 0·55
Rajputana and Central India.	Central India (East)	12·5	...	10·78	13·28	− 2·50
	Rajputana (East) and Central India (West)	8·6	...	7·36	9·09	− 1·73
	Do. (West)	4·1	...	2·06	3·93	− 1·87
Madras	East Coast (North)	9·3	10·4	6·57	7·07	− 0·50
	Do. (do.) (a)	11·5	19·5	9·18	14·39	− 5·21
	Hyderabad (South)*	...	...	7·01	...	...
	Madras (Central)	8·7	5·6	5·09	2·80	+ 2·29
	East Coast (Central)	5·8	4·7	2·43	2·29	+ 0·14
	Do. (South)	5·7	4·5	3·93	2·63	+ 1·30
	Madras (South)	2·5	2·0	1·39	0·86	+ 0·53

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

The rainfall of the month was in general excess in Bengal, Assam, Oudh, the Hill districts of the North Western Provinces, parts of the Punjab, South India Malabar, the Bombay Deccan and Khandesh, and was more or less in defect over the remainder of India.

The total average actual rainfall for the whole month was only 0·13″ in Sind, 0·44″ in Baluchistan, and less than 5″ in the South-East Punjab, the South Punjab, the Central Punjab, the West Punjab, the North Punjab, West Rajputana, South-Central Madras, South Madras, and the

central and south divisions of the East Coast. On the other hand, the total rainfall of the month was over 44″ in Malabar and Arakan and over 30″ in the Assam and Bengal Hills, Coorg and the Konkan. The following gives comparative data for the divisions where the actual average rainfall of the month exceeded 30″ :—

DIVISION.	RAINFALL.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Arakan	44·09	48·28	—4·19	— 9
Assam Hills	33·55	33·76	—0·21	— 1
Bengal Hills	33·46	35·47	—2·01	— 6
Malabar	44·18	35·45	+8·73	+25
Coorg	35·87	...	...	...
Konkan	38·08	40·04	—1·96	— 5

In Burma the rainfall of the month was about normal. Light to moderately heavy rain fell daily over the province from the 1st to the 18th when a partial break set in and only scattered showers were experienced for a week. On the 26th rain again became general and continued until the close of the month. The three cyclonic storms which were developed over the Bay during this month only slightly affected the weather over Burma and there were hence no heavy cyclonic downpours to record. The following gives the heaviest falls in 24 hours recorded in each division of the province with the name of the recording stations and the dates of the fall :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SANDOWAY	Sandoway	1st July	8·20
KYAUKPYU	Ramree	" "	6·86
TAVOY	Yebyu	" "	5·78
Do.	Tavoy	3rd "	5·90
Do.	Launglon	" "	5·19
Do.	Yebyu	7th "	5·46
THATON	Thaton	" "	5·40
KYAUKPYU	Myebon	9th "	5·30
AKYAB	Rathedaung	11th "	5·50
SANDOWAY	Sandoway	12th "	9·20
KYAUKPYU	Myebon	" "	8·25
PEGU	Nyaunglebin	13th July	6·30
AKYAB	Rathedaung	14th "	8·25
Do.	Akyab	" "	6·47
HANTHAWADDY	Kyauktan	" "	5·39
KYAUKPYU	Myebon	15th "	5·58
TAVOY	Thayetchaung	27th "	9·13
Do.	Launglon	" "	8·54
Do.	Tavoy	28th "	6·30
KATHA	Wuntho	29th "	5·14
THATON	Thaton	31st "	5·35

The following gives comparative rainfall data for the five rainfall divisions of the province :—

DIVISION.	RAINFALL.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	39·35	...	...	...
Lower Burma, Deltaic	22·85	...	...	...
Central Burma	12·45	...	...	...
Upper Burma	8·84	5·70	+ 3·14	+ 55
Arakan	39·37	...	...	...

Assam had less continuous rain than in the same month last year. Moderate daily rain was received from the 1st to the 3rd, then followed a partial break from the 4th to the 6th after which moderate daily rain again set in lasting till the 13th. From the 14th to the 18th the rainfall became heavier under the influence of the second cyclonic storm of the month after the dispersion of which daily moderate rain again set in over the province and continued until the 24th. Rain then to a great extent ceased and a partial break obtained over the province until the 31st. The total rainfall of the month was about normal in the Brahmaputra Valley and the hills, while in the Surma Valley the rainfall was more than usual. At Cherra Poonjee the total rainfall of the month was 127·90″ or 18·86″ above the normal. The heaviest fall in 24 hours at this station

was 12·60 on the 20th. The following table gives comparative data for the eight plains districts of Assam:—

District.	Rainfall.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Sylhet	25·03	20·67	+ 4·36	+21
Cachar	20·61	17·86	+ 2·75	+15
Goalpara	27·02	15·46	+11·56	+75
Kamrup	12·72	13·41	— 0·69	—5
Darrang	13·91	11·63	+ 2·28	+20
Nowgong	12·40	16·11	— 3·71	—23
Sibsagar	12·34	15·92	— 3·58	—23
Lakhimpur	16·69	19·00	— 2·31	—12

There was comparatively little rain over South-West Bengal, Bihar, Orissa and Chota Nagpur during the first four days of July. Thereafter moderate daily rain set in and lasted until the 13th. Over the remainder of Bengal moderate daily rain commenced on the 1st and lasted steadily until the 13th. During these thirteen days, as mentioned above, the rainfall was generally moderate, but falls exceeding 4″ were reported at the following places on the following dates:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Mymensingh	Netrakona	1st July	6·55
	Mymensingh	,, ,,	5·70
Tippera	Brahmanbaria	,, ,,	4·70
Purnea	Gondwara	2nd ,,	5·35
Mymensingh	Mymensingh	,, ,,	4·18
Sonthal Parganas	Hiranpur	3rd ,,	5·25
Khulna	Khulna	,, ,,	5·22
	Bagerhat	,, ,,	4·54
Bhagalpur	Supaul	,, ,,	4·30
Sonthal Parganas	Bario	,, ,,	4·30
Bhagalpur	Bhagalpur	4th ,,	4·80
Sonthal Parganas	Assenboni	,, ,,	4·67
Dinajpur	Raiganj	5th ,,	5·45
Ranchi	Sirguja	10th ,,	5·00
Midnapore	Midnapore	12th ,,	4·50
Balasore	Chandbali	13th ,,	13·40
	Akhyapada	,, ,,	10·09
Cuttack	Pal Lahara	13th July	10·05
	Jajpur	,, ,,	8·15
	False Point	,, ,,	6·00
	Kendrapara	,, ,,	4·70
Palamau	Mahuadand	,, ,,	4·22
Cuttack	Dharmsala	,, ,,	4·10

A storm formed in the north-west angle of the Bay on the 12th and 13th. It advanced north-westward into the western districts of the North-Western Provinces and gave a moderate burst of rain over Bengal, the fall lasting until the 20th. During this burst of general rain, which was heaviest in Orissa on the 13th, in Chota Nagpur on the 13th and 14th, in Bihar on the 17th, 18th and 19th, and in Bengal between the 18th and 20th, the following amounts exceeding 4″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Palamau	Panki	14th July	4·14
Noakhali	Chhagalnaya	15th ,,	5·26
Chittagong	Mirsarai	,, ,,	4·72
Backergunge	Bauphal	,, ,,	4·60
Noakhali	Fenny	,, ,,	4·34
Do.	Noakhali	,, ,,	4·06
Do.	Hatya	16th ,,	6·70
Chittagong	Cox's Bazar	,, ,,	6·47
Jalpaiguri	Falakata	,, ,,	5·71
Chittagong	Mirsarai	,, ,,	5·52
Purnea	Gondwara	,, ,,	5·00
Noakhali	Harishpur	,, ,,	5·00
Do.	Fenny	,, ,,	4·60
Jalpaiguri	Alipore Duar	,, ,,	4·60
Darjeeling	Baxa	,, ,,	4·30
Jalpaiguri	Jalpaiguri	,, ,,	4·29
Mymensingh	Nalitabari	,, ,,	4·07
Rangpur	Kurigaon	17th ,,	7·89
Do.	Bagdogra	,, ,,	6·73
Patna	Patna	,, ,,	6·12
Rangpur	Rangpur	,, ,,	6·12
Darjeeling	Baxa	,, ,,	5·12
Chittagong	Mirsarai	,, ,,	4·90
Muzaffarpur	Sitamarhi	,, ,,	4·70

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DINAJPUR	Dinajpur	17th July	4·65
Do.	Thakurgaon	" "	4·56
MONGHYR	Gogri	" "	4·47
SARAN	Ekma	" "	4·30
JALPAIGURI	Debiganj	" "	4·23
COOCH BEHAR	Dinhatta	" "	4·18
BACKERGUNGE	Barisal	" "	4·10
SHAHABAD	Arrah	18th "	9·51
MURSHIDABAD	Berhampore	" "	8·70
Do.	Lalbagh	" "	6·35
MONGHYR	Begusarai	" "	5·85
CHITTAGONG	Cox's Bazar	" "	5·41
RANGPUR	Kurigaon	" "	5·37
Do.	Sunderganj	" "	5·26
BOGRA	Nowkhilla	" "	5·25
MURSHIDABAD	Azimganj	" "	4·82
NOAKHALI	Chhagalnaya	" "	4·81
RANGPUR	Ulipur	" "	4·60
NOAKHALI	Harishpur	" "	4·49
BOGRA	Panchbibi	" "	4·31
RANGPUR	Peerganj	" "	4·08
BHAGALPUR	Supaul	" "	4·05
NADIA	Kandi	" "	4·01
PURNEA	Kaliaganj	19th "	4·20
JALPAIGURI	Alipore Duar	20th "	6·66
COOCH BEHAR	Mickliganj	" "	4·65
Do.	Mathabhanga	" "	4·15

The storm had ceased to directly affect the weather in Bengal by the 16th, but it had been succeeded by a strong flow of monsoon winds into Bengal and these winds gave a burst of heavy rain, more particularly to North Bengal on the 21st and 22nd. The following were the principal amounts exceeding 4″ in 24 hours recorded on this occasion :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DARJEELING	Baxa	21st July	11·45
MYMENSINGH	Nalitabari	" "	7·38
PABNA	Serajganj	" "	6·27
TIPPERA	Brahmanbaria	" "	6·10
KHULNA	Kaliganj	" "	5·40
TIPPERA	Nasirnagar	21st July	5·30
HAZARIBAGH	Karagdeha	" "	4·30
RAJSHAHI	Naugaon	" "	4·27
MYMENSINGH	Kishorganj	" "	4·21
Do.	Durgapur	" "	4·20
JALPAIGURI	Bhagatpur	22nd "	11·20
Do.	Jalpaiguri	" "	11·18
COOCH BEHAR	Mickliganj	" "	7·10
DARJEELING	Siliguri	" "	6·40
DACCA	Manikganj	" "	5·80
DARJEELING	Kurseong	" "	4·91
COOCH BEHAR	Mathabhanga	" "	4·73
JALPAIGURI	Falakata	" "	4·69
JALPAIGURI	Alipore Duar	" "	4·50
DARJEELING	Darjeeling	" "	4·19
RANGPUR	Sunderganj	" "	4·14
DARJEELING	Mungpoo	" "	4·02

After this burst of rain pressure rose over Bengal and a large area of excessive pressure was developed over North-East India and the head of the Bay. This change in the pressure conditions was marked by a large falling off in the rainfall and from the 23rd to the 30th a partial break set in during which only moderate scattered showers were recorded throughout the province. On the 30th and 31st the weather over Bengal began to be affected by a cyclonic storm which had formed over the Bay and was advancing north-westward towards the Orissa coast. This storm occasioned an increase of rainfall over the greater part of the province and the following amounts exceeding 2″ in 24 hours were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MALDA	Gajol	30th July	4·60
Do.	Chanchal	" "	3·30
RAJSHAHI	Mohadebpur	" "	3·00
24-PARGANAS	Dum-Dum	" "	2·71
KHULNA	Mollahat	" "	2·35
NOAKHALI	Lakhipur	" "	2·30
KHULNA	Rampal	" "	2·25
FARIDPUR	Faridpur	" "	2·17
MONGHYR	Chupreon	" "	2·11

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MONGHYR	Khargpur	30th July	2·10
KHULNA	Mollahat	31st "	3·15
SONTHAL PARGANAS	Nanihat	" "	3·10
CUTTACK	Dharmsala	" "	2·85
24-PARGANAS	Basirhat	" "	2·66
KHULNA	Bagerhat	" "	2·63
ORISSA TRIBUTARY MAHALS.	Talchar	" "	2·58
KHULNA	Morellganj	" "	2·43
ORISSA TRIBUTARY MAHALS.	Bispara	" "	2·42
MYMENSINGH	Mymensingh	" "	2·41
DARJEELING	Mungpoo	" "	2·12

The following table gives comparative data for the nine rainfall divisions of the province :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Average normal, July.
	Inches.	Inches.	Inches.			
Eastern Bengal	21·14	18·01	+3·13	+17	19·6	18·4
Deltaic "	10·61	11·81	—1·20	—10	15·6	16·4
Central "	11·77	12·29	—0·52	— 4	15·5	16·0
North "	23·04	19·68	+3·36	+17	9·9	16·7
Bengal Hills	33·46	35·47	—2·01	— 6	25·9	24·2
Orissa	11·78	11·67	+0·11	+ 1	12·8	14·2
Chota Nagpur	10·17	14·15	—3·98	—28	14·6	16·9
South Bihar	9·16	12·25	—3·09	—25	12·9	14·0
North Bihar	14·53	13·60	+0·93	+ 7	15·8	14·4

The preceding data show that the rainfall of the month was below the normal in Chota Nagpur and South Bihar, and was practically normal elsewhere, though in North and East Bengal the rainfall was in very slight excess and in Deltaic Bengal in very slight defect of the normal.

In the North-Western Provinces there was only one period of heavy general rainfall during the month. This lasted from the 12th to the 16th or 18th. The rainfall coincided with the advance into the North-Western Provinces of the small cyclonic storm which formed over the head of the Bay on the 12th and 13th as well as with a moderate advance of monsoon winds across the West Coast and was directly related to both these actions. During this burst of rain the following amounts exceeding 4" in 24 hours were registered :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MORADABAD	Moradabad	12th July	4·48
DEHRA DUN	Mussooree	" "	4·45
NAINITAL	Naini Tal	" "	4·17
MUZAFFARNAGAR	Bainswal	15th "	9·90
Do.	Khandhla	" "	7·00
MORADABAD	Hasanpur	" "	5·50
FARUKHABAD	Thatia Tirwa	" "	5·00
HARDOI	Bilgram	" "	4·60
MUZAFFARNAGAR	Muzaffarnagar	" "	4·12
MUZAFFARNAGAR	Budhana	16th "	9·64
MEERUT	Sardhana	" "	9·54
Do.	Mawana	" "	9·28
HAMIRPUR	Bija Nagar	" "	9·18
MORADABAD	Hasanpur	" "	9·00
SAHARANPUR	Kuankhera	" "	7·00
MUZAFFARNAGAR	Jaoli-Jansath	" "	6·52
MEERUT	Meerut	" "	5·46
SAHARANPUR	Nakur	" "	5·40
MUZAFFARNAGAR	Kairana	" "	5·33
ETAH	Aliganj	" "	5·22
SAHARANPUR	Salimpur	" "	4·70
Do.	Deoband	" "	4·55
FARUKHABAD	Thatia-Tirwa	" "	4·55
ETAWAH	Bidhuna	" "	4·52
SITAPUR	Misrikh	17th "	4·97
SAHARANPUR	Jarauda	" "	4·60
NAINI TAL	Kilpuri	" "	4·11
BAREILLY	Nawabganj	" "	4·09
FYZABAD	Akbarpur	18th "	5·45
BAHRAICH	Nanpara	" "	4·43
FYZABAD	Fyzabad	" "	4·05

Previous to the 12th there had been scattered showers in different parts of the North-Western Provinces. These showers were most general in Oudh on the 7th and 8th, in the central division of the North-Western Provinces on the 5th and 8th, in the west division on the 6th and 7th, and in the submontane divisions on the 6th and 8th. The showers were not generally heavy but exceeded

2½″ in 24 hours at the following stations on the following dates :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BAHRAICH	Bahraich	3rd July	3·03
BALLIA	Korantadih	" "	2·95
Do.	Ballia	4th "	2·53
DEHRA DUN	Dehra Dun (Leper Asylum).	5th "	3·14
Do.	Mussooree	" "	3·10
SHAHJAHANPUR	Shahjahanpur	6th "	3·25
FYZABAD	Akbarpur	" "	3·11
HARDOI	Bilgram	" "	2·80
Do.	Shahabad	" "	2·67
SHAHJAHANPUR	Jalalabad	" "	2·66
SAHARANPUR	Roorkee Observatory	" "	2·56
MAINPURI	Bhongaon	7th "	3·10
BENARES	Benares	" "	2·91
ALMORA	Chaukuri	8th "	3·92
NAINI TAL	Kathgodam	" "	3·83
DEHRA DUN	Dehra Dun (Leper Asylum).	" "	3·41
ETAWAH	Bidhuna	" "	2·54
ALMORA	Tanakpur	9th "	6·00
DEHRA DUN	Bhogpur	" "	3·50
ALMORA	Beranag	" "	3·20
NAINI TAL	Kathgodam	" "	3·00
GARHWAL	Okhimath	" "	2·90
DEHRA DUN	Dehra Dun	" "	2·68
NAINI TAL	Nagla	10th "	7·00
Do.	Kathgodam	" "	4·00
GARHWAL	Kotdwara	" "	3·14
SAHARANPUR	Salimpur	" "	2·85
Do.	Jarauda	" "	2·80
NAINI TAL	Kilpuri	11th "	4·14
Do.	Satarganj	" "	4·00
FARUKHABAD	Chibramau	" "	3·09
MORADABAD	Thakurdwara	" "	2·91
NAINI TAL	Satnia	" "	2·70
Do.	Ramnagar	" "	2·66
KHERI	Mohamdi	" "	2·61
BANDA	Badausa	" "	2·51

After the cessation of the main burst of rainfall of the month showery weather again set in. In most parts of the provinces from about the 19th, but in the western division from the 16th, a break set in which lasted until the 28th. The last four days of the month were again showery, and during this period the following falls exceeding 2″ in 24 hours were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MUTTRA	Mat	28th July	4·41
PARTABGARH	Partabgarh	" "	3·55
UNAO	Unao	" "	2·52
DEHRA DUN	Rajpur	" "	2·48
ALLAHABAD	Manjhanpur	" "	2·47
GORAKHPUR	Hata	" "	2·40
DEHRA DUN	Chakrata Obsy.	" "	2·35
GHAZIPUR	Mohammadabad	" "	2·28
AZAMGARH	Do.	" "	2·20
NAINI TAL	Kathgodam	" "	2·14
ALMORA	Tanakpur	29th "	3·75
DEHRA DUN	Rajpur	" "	3·45
NAINI TAL	Haldwani	" "	3·10
ALMORA	Chaukuri	" "	3·00
Do.	Champawat	" "	2·90
MORADABAD	Bilhari	" "	2·39
DEHRA DUN	Raipur	" "	2·20
NAINI TAL	Kathgodam	" "	2·14
SAHARANPUR	Mohammadpur	" "	2·13
NAINI TAL	Kathgodam	30th "	7·14
UNAO	Mohan	" "	5·05
NAINI TAL	Rudarpur (Kicha)	" "	4·50
Do.	Nagla	" "	4·50
ALMORA	Tanakpur	" "	3·72
BAHRAICH	Nanpara	" "	3·29
BUDAUN	Bisauli	" "	2·95
PILIBHIT	Puranpur	" "	2·76
NAINI TAL	Satnia	" "	2·70
HAMIRPUR	Kulpahar	" "	2·30
FARUKHABAD	Digri	" "	2·25
ALMORA	Champawat	" "	2·10
BUDAUN	Budaun	" "	2·08
UNAO	Purwa	31st "	6·20
BAREILLY	Karor	" "	3·49
HARDOI	Sandila	" "	2·97
KHERI	Kheri	" "	2·92
BAREILLY	Faridpur	" "	2·67
PILIBHIT	Pilibhit (city)	" "	2·53
JHANSI	Narhat	" "	2·40
ETAWAH	Etawah	" "	2·25
DEHRA DUN	Rajpur	" "	2·08

The following gives comparative rainfall data for the eight rainfall divisions of the province :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Average normal, July.
	Inches.	Inches.	Inches.			
North-Western Provinces East.	7·65	11·83	−4·18	−35	11·7	13·3
South Oudh . .	9·99	10·75	−0·76	− 7	11·7	12·3
North ,, . .	14·95	11·69	+3·26	+28	13·4	12·1
North-Western Provinces, Central.	7·56	11·79	−4·23	−36	10·5	12·3
North-Western Provinces. West.	5·84	8·85	−3·01	−34	8·3	9·5
North-Western Provinces, East Submontane.	11·68	12·40	−0·72	− 6	13·9	13·2
North-Western Provinces, West Submontane.	14·58	14·66	−0·08	− 1	13·4	12·7
North-Western Provinces Hills.	17·55	17·03	+0·52	+ 3	18·1	18·4

This table shows that the rainfall of the month was in defect in the eastern, central and west divisions of the North-Western Provinces and in excess in North Oudh while it was normal in all the remaining divisions.

The rainfall of the month in the Punjab was about normal on and near the hills, but was lighter than usual over the south-east, south, centre and west of the province. The storm which left the head of the Bay on the 13th advancing north-westward occasioned an increase of rain over the Punjab, though the storm itself never reached the province and there were showers more or less general on the 6th and 7th, the 10th and from the 26th to the end of the month due to the increased activity of the Arabian Sea current. The showers on the 6th and 7th were heaviest in the Umballa district and in Kangra and the following largish amounts in 24 hours were recorded during this period :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
Umballa . . .	Rupar . . .	5th July .	5·80
Karnal . . .	Karnal . . .	,, ,, .	1·85
Ludhiana . . .	Samrala . . .	,, ,, .	1·80
Jullundur . .	Nawashahr . .	,, ,, .	1·55
Umballa . . .	Kharar . . .	6th ,, .	3·12
Kangra . . .	Palampur . . .	,, ,, .	2·96
Kangra . . .	Hamirpur . . .	6th July .	2·82
Do. . . .	Kangra . . .	,, ,, .	2·15
Umballa . . .	Jagadhri . . .	,, ,, .	2·10
Gurdaspur . .	Shakargarh . .	,, ,, .	1·85
Karnal . . .	Thanesar . . .	,, ,, .	1·73
Umballa . . .	Umballa . . .	,, ,, .	1·72
Kangra . . .	Dharmsala . .	,, ,, .	1·55
Umballa . . .	Dadupur . . .	7th ,, .	1·90
Patiala State . .	Gujran . . .	,, ,, .	1·50
Kangra . . .	Dharmsala . .	8th ,, .	2·00
Do. . . .	Palampur . . .	,, ,, .	1·84

Between the 10th and the 12th the showers were very general and were fairly heavy, as is shown by the following table which gives the amounts exceeding 2″ in 24 hours recorded during this period :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Karnal . . .	Karnal . . .	10th July .	3·32
Do. . . .	Panipat . . .	,, ,, .	3·30
Kangra . . .	Dharmsala . .	,, ,, .	3·10
Rohtak . . .	Gohana . . .	,, ,, .	2·80
Hoshiarpur . .	Garhshankar . .	,, ,, .	2·79
Gurdaspur . .	Shakargarh . .	,, ,, .	2·78
Kangra . . .	Dera . . .	,, ,, .	2·70
Gujrat . . .	Kharian . . .	,, ,, .	2·39
Gurdaspur . .	Dalhousie . . .	11th ,, .	4·65
Kangra . . .	Nurpur . . .	12th ,, .	4·05
Do. . . .	Dharmsala . .	,, ,, .	3·70
Gurdaspur . .	Madhopur . .	,, ,, .	3·40
Do. . . .	Pathankot . .	,, ,, .	2·77
Jhelum . . .	Sadr Station, Jhelum .	,, ,, .	2·74
Rawalpindi . .	Murree . . .	,, ,, .	2·45
Kangra . . .	Kangra . . .	,, ,, .	2·10
Do. . . .	Hamirpur . . .	,, ,, .	2·05
Umballa . . .	Kasauli . . .	,, ,, .	2·04

The heaviest and most general burst of rain was that between the 13th and the 17th when both monsoon currents were affecting the province. The following shows the falls of over 3″ in 24 hours recorded during this burst :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SIMLA	Barauli	13th July	5·27
UMBALLA	Kasauli	,, ,,	4·20
Do.	Rupar	,, ,,	3·60
Do.	Rupar	14th ,,	4·30
JULLUNDUR	Nawashahr	,, ,,	4·20
HOSHIARPUR	Hoshiarpur	,, ,,	3·02
KANGRA	Hamirpur	15th ,,	6·00
JULLUNDUR	Phillour	,, ,,	4·81
HISSAR	Hansi	,, ,,	4·70
HOSHIARPUR	Una	,, ,,	4·57
HISSAR	Tohana	,, ,,	4·30
KANGRA	Dera	,, ,,	4·02
UMBALLA	Rupar	,, ,,	3·75
PATIALA STATE	Barthala	,, ,,	3·57
UMBALLA	Kharar	,, ,,	3·44
JIND STATE	Safidan	,, ,,	3·10
UMBALLA	Kharar	16th ,,	8·80
KARNAL	Thanesar	,, ,,	8·15
Do.	Karnal	,, ,,	7·70
UMBALLA	Naraingarh	,, ,,	5·25
Do.	Dadupur	,, ,,	5·10
Do.	Jagadhri	,, ,,	5·09
Do.	Umballa	,, ,,	4·05
LUDHIANA	Ludhiana	,, ,,	3·06
KANGRA	Dera	,, ,,	3·01

From the 26th to the end of the month the weather was showery. In most places the showers were not heavy, but in the Lahore district on the 31st, in Amritsar on the 31st, in Kangra on the 28th, 30th and 31st, there were numerous heavy falls. The following gives details of the falls exceeding 4″ in 24 hours during the last five days of the month :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KANGRA	Dharmsala	28th July	5·50
Do.	Kangra	,, ,,	4·36
Do.	Nurpur	30th ,,	4·74
Do.	Kangra	,, ,,	4·21
LAHORE	Meean Meer	31st ,,	6·10
AMRITSAR	Amritsar Jail Hospital	,, ,,	6·00
KANGRA	Palampur	,, ,,	4·98
AMRITSAR	Amritsar	,, ,,	4·62
LAHORE	Niaz Beg	,, ,,	4·30

The following table gives comparative rainfall data for the 31 districts of the Punjab and shows the general lightness of the rainfall :—

DISTRICT.	RAINFALL.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Hissar	3·85	4·72	−0·87	−18
Ferozepore	2·28	5·03	−2·75	−55
Montgomery	0·76	2·95	−2·19	−74
Gurgaon	2·92	8·29	−5·37	−65
Rohtak	3·91	6·74	−2·83	−42
Delhi	3·93	7·80	−3·87	−50
Karnal	8·34	7·92	+0·42	+ 5
Lahore	3·96	4·86	−0·90	−19
Umballa	16·63	11·26	+5·37	+48
Ludhiana	5·60	8·06	−2·46	−31
Jullundur	9·70	8·27	+1·43	+17
Hoshiarpur	12·68	9·75	+2·93	+30
Gurdaspur	10·83	12·39	−1·56	−12
Amritsar	5·49	6·35	−0·86	−14
Simla	13·11	12·18	+0·93	+ 8
Kangra	21·12	19·20	+1·92	+10
Gujranwala	1·98	5·15	−3·17	−62
Sialkot	7·28	8·24	−0·96	−12

District.	Rainfall. Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Gujrat	7·09	6·23	+0·86	+ 14
Jhelum	4·64	4·17	+0·47	+ 11
Rawalpindi	7·52	6·82	+0·70	+ 10
Peshawar	1·29	2·16	—0·87	— 40
Hazara	8·57	6·47	+2·10	+ 32
Kohat	2·86	3·63	—0·77	— 21
Bannu	1·48	1·94	—0·46	— 24
Shahpur	2·04	3·31	—1·27	— 38
Jhang	0·96	3·03	—2·07	— 68
Dera Ismail Khan	1·51	2·29	—0·78	— 34
Dera Ghazi Khan	0·47	1·96	—1·49	— 76
Muzaffargarh	0	2·31	—2·31	—100
Mooltan	0·21	1·53	—1·32	— 86

The districts with the lightest rainfall, relatively to the normal, were Gurgaon (—65 per. cent.) and Delhi (—50 per. cent.) in the south-east of the province and Muzaffargarh (—100 per. cent.) and Mooltan (—86 per. cent.) in the west of the province.

In Kangra the weather was showery up to the 9th, when heavy rain set in and continued till the close of the month.

Baluchistan received showers between the 9th and the 14th and again between the 24th and the 27th, and the total fall of the month was only about half the average. Kashmir, like Kangra, had fine weather up to the 8th, then rain commenced and showers continued until the close of the month. As was the case in parts of the Punjab the falls were heavy between the 9th and 12th and again on the 31st on which days the following amounts exceeding 1″ in 24 hours were registered :—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kashmir	Jummoo	9th July	2·70
Do.	Katli	,, ,,	2·24
Do.	Punch	,, ,,	1·08
Do.	Bhimber	10th ,,	2·40
Kashmir	Ramban	10th July	1·80
Do.	Sambha	,, ,,	1·09
Do.	Punch	11th ,,	1·96
Do.	Akhnur	,, ,,	1·90
Do.	Domel	,, ,,	1·62
Do.	Katli	,, ,,	1·52
Do.	Nagam	,, ,,	1·25
Do.	Lal Phak	,, ,,	1·16
Do.	Kathua	12th ,,	3·02
Do.	Rampore Rajauri	,, ,,	2·32
Do.	Meerpore	,, ,,	2·18
Do.	Punch	,, ,,	1·25
Do.	Haripore	,, ,,	1·03
Do.	Jummoo	31st ,,	3·61
Do.	Kathua	,, ,,	3·45
Do.	Bhimber	,, ,,	2·40
Do	Rampore Rajauri	,, ,,	1·86
Do.	Domel	,, ,,	1·30
Do.	Sambha	,, ,,	1·16
Do.	Anantnag	,, ,,	1·06

Western Rajputana had two bursts of fairly genera rain both agreeing with strong advances of the Arabiar Sea current. The first lasted from the 10th to the 16tl when the following falls exceeding 1″ were recorded :—

State.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jodhpur	Parbatsar	11th July	1·05
Do.	Pali	12th ,,	1·56
Do.	Merta	13th ,,	1·53
Do.	Jodhpur (Sursagar)	,, ,,	1·04
Do.	Jaswantpura	14th ,,	1·82
Do.	Sankra	,, ,,	1·11

The second rainfall period extended from the 25th to the end of the month when the heaviest falls were :—

STATE.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JODHPUR	Bali	25th July	1·63
Do.	Siwana	27th "	1·50
Do.	Jalor	" "	1·40
Do.	Bali	" "	1·14
Do.	Jasol	" "	1·10
Do.	Jalor	28th "	1·23
Do.	Bali	" "	1·21
Do.	Didwana	30th "	1·77

Eastern Rajputana received rain at the same times and under the same conditions as the western half of the province, but the fall was much heavier and more extensive. On the 12th, 13th and 14th the fall was particularly heavy and the following large amounts exceeding 4″ in 24 hours were recorded.

STATE.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JAIPUR	Siwai Madhopur	12th July	7·34
KOTAH	Etawah	" "	5·73
Do.	Sangod	" "	5·33
Do.	Sultanpur	13th "	13·00
Do.	Indargarh	" "	7·10
JAIPUR	Lalsot	" "	5·00
KOTAH	Mangrol	" "	5·00
BHARATPUR	Rupbas	" "	4·02

The second burst of rain between the 25th and 31st was lighter, but on this occasion the following considerable falls of rain were received :—

STATE.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DHOLPUR	Sirmathra	25th July	2·38
Do.	Rajakhera	" "	2·10
TONK	Tonk	27th "	3·86
JAIPUR	Sikar	" "	2·02
DUNGARPUR	Dungarpur	28th July	4·00
JAIPUR	Uniara	29th "	2·23
DHOLPUR	Kanlari	30th "	3·68
JAIPUR	Uniara	" "	2·35
AJMER MERWARA	Pisangan	" "	2·30
KOTAH	Ikbra	31st "	4·05
SIROHI	Mount Abu	" "	3·44
KOTAH	Kotah	" "	2·81
JAIPUR	Lalsot	" "	2·75

The following gives a comparative statement of the rainfall of the month for some of the larger states :—

STATE.	RAINFALL.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Jodhpur	2·03	4·14	− 2·11	−51
Jaipur	7·06	8·08	− 1·02	−13
Alwar	3·44	9·62	− 6·18	−64
Bharatpur	6·05	8·92	− 2·87	−32
Kotah	12·01	9·57	+ 2·44	+25
Ajmer	6·12	7·05	− 0·93	−13
Udaipur	6·04	9·76	− 3·72	−38
Sirohi	5·47	15·73	−10·26	−65
Dholpur	8·44			

In Central India the rainfall was more continuous than in Eastern Rajputana, but there was a marked break in the middle of the month and the periods of most general rain were, as in Rajputana, between the 8th and the 16th and between the 25th and the end of the month. The rainfall was, on the whole, less heavy than in Rajputana,

but the following amounts exceeding 3 inches in 24 hours were recorded :—

STATE.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GWALIOR	Shujaulpur	10th July	3·51
BUNDELKHAND	Bijawar	" "	3·23
Do.	Ajaigarh	11th "	6·39
GWALIOR	Gwalior Fort	" "	3·35
Do.	Morar	" "	3·25
Do.	Gwalior Residency	12th "	4·15
REWAH	Sutna	" "	3·43
GWALIOR	Sonkach	13th "	5·04
BHOPAL AGENCY	Maksudangarh	" "	3·85
GWALIOR	Manpur	" "	3·05
Do.	Jhabua	14th "	4·90
Do.	Shujaulpur	" "	3·20
Do.	Ali Rajpur	15th "	4·43
BHOPAL AGENCY	Khilchipur	" "	3·65
Do.	Sehore	" "	3·54
Do.	Narsinghgarh	" "	3·25
Do.	Bhopal	16th "	4·10
REWAH	Ramnagar	17th "	3·70
BUNDELKHAND	Panna	18th "	4·98
REWAH	Tyonthar	19th "	5·33
Do.	Bardi	" "	4·60
NAGODE	Nagode Hospital	25th "	3·10
GWALIOR	Manpur	27th "	6·35
Do.	Sonkach	" "	5·42
Do.	Jaora	" "	3·52
BHOPAL AGENCY	Ashta	29th "	3·16
Do.	Karwai	30th "	5·90
GWALIOR	Isagarh	" "	4·00
Do.	Jaora	31st "	3·63

The date with the heaviest and most general rain was the 11th when almost every station in the agency reported rain.

The following table gives a comparative statement of the rainfall in the larger states of Central India :—

STATE.	RAINFALL.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Indore	9·89	9·67	+0·22	+ 2
Rutlam	7·36	11·05	—3·69	—33
Bhopal Agency	12·50	16·60	—4·10	—25
Gwalior	10·42	10·38	+0·04	0
Rewah	12·92	14·83	—1·91	—13
Bundelkhand	9·03	14·96	—5·93	—40

There was daily moderate rain in the Central Provinces from the 1st to the 19th, then the fall took off and from the 20th to the 30th the rainfall was lighter and more scattered. On the 31st the fall increased again, and some large amounts were recorded. The rainfall was heavy in the Chanda district between the 3rd and the 5th, when the following heavy falls were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CHANDA	Armori	3rd July	5·50
	Brahmapuri	4th "	5·65
	Mul	4th "	4·75
	Armori	4th "	2·59
	Warora	4th "	2·09
	Do.	5th "	4·98
	Brahmapuri	5th "	4·17
	Chimur	5th "	3·75
	Chanda	5th "	3·39

Rain was heavy in the central division of the Central Provinces on the 16th, 17th and 18th, and the following falls exceeding 2″ in 24 hours were registered on these dates :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SAUGOR	Rihli	16th July	4·25
Do.	Saugor	16th "	2·14
JUBBULPORE	Sihora	17th "	3·34
DAMOH	Damoh	17th "	2·67
JUBBULPORE	Murwara	18th "	4·77
BALAGHAT	Lanji	18th "	4·03
JUBBULPORE	Bijeraghogarh	18th "	2·73

On the 31st rain was very general throughout the Provinces and falls exceeding 2″ in 24 hours were recorded at the following stations :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CHANDA . . .	Armori . . .	31st July .	11·18
Do. . . .	Chanda . . .	„ „ .	4·07
Do. . .	Mul	„ „ .	3·95
NAGPUR . . .	Umrer . . .	„ „ .	3·71
CHANDA . . .	Sironcha . . .	„ „ .	3·14
WARDHA . . .	Hinganghat . .	„ „ .	2·21

The following gives comparative rainfall data for the three divisions of the Central Provinces and for Berar :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage Variation from normal.	Average actual, July 1900.	Average normal, July.
	Inches.	Inches.	Inches.			
Central Provinces (West).	12·47	13·81	−1·34	−10	15·0	15·4
Central Provinces (Central).	16·11	18·02	−1·91	−11	17·0	17·1
Central Provinces (East).	13·84	16·07	−2·23	−14	16·9	15·0
Berar	9·66	12·17	−2·51	−21	...	...

The rainfall of the month was normal in the southern districts of the Bombay Presidency and in considerable defect in the northern districts. There was a partial break in the rains over the more southern districts, beginning on the 16th in the Deccan, and on the 20th on the coast, and lasting till the 27th, when heavy rain recommenced. There was no general rain during the month until the last week in the northern districts, including Cutch, Gujarat and Kathiawar. The deficiency was hence large and serious over the whole of that area which included the districts which were suffering most severely from the famine, consequent on the drought and failure of the rains in the previous year.

In the Konkan coast districts rain after falling heavily on the 1st and 2nd became general, but light from the 3rd to the 5th. On the 6th, 7th and 8th, the rainfall temporarily increased, 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.
NORTH KANARA .	Ankola . . .	6th July .	6·50
	Karwar . . .	„ „ .	5·43
	Honavar . . .	„ „ .	5·40
	Kumta . . .	„ „ .	5·04
RATNAGIRI . .	Sangameshvar . .	„ „ .	4·02
NORTH KANARA .	Siddapur . . .	„ „ .	3·87
	Bhatkal . . .	„ „ .	3·06
	Bhatkal . . .	7th „ .	7·57
	Honavar . . .	„ „ .	4·90
	Kumta . . .	„ „ .	4·65
SAVANTVADI . .	Savantvadi . .	„ „ .	4·08
RATNAGIRI . .	Vengurla . .	„ „ .	3·47
SAVANTVADI . .	Savantvadi . .	8th „ .	5·78
NORTH KANARA .	Bhatkal . . .	„ „ .	5·21
RATNAGIRI . .	Chiplun . . .	„ „ .	4·82
	Mandangad . .	„ „ .	3·82
SAVANTVADI . .	Banda . . .	„ „ .	3·75
	Kudal . . .	„ „ .	3·18

Thereafter rain fell off again and continued light until the 10th when the inflow of the monsoon currents increased. This advance continued until the 17th and during this period the following falls of over 5″ in 24 hours were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NORTH KANARA .	Karwar . . .	9th July .	7·75
	Siddapur . . .	„ „ .	7·12
	Supa . . .	„ „ .	5·19
KOLABA . . .	Matheran . .	11th „ .	6·55
	Matheran . .	12th „ .	8·56
RATNAGIRI . .	Mandangad . .	„ „ .	6·30
KOLABA . . .	Matheran . .	13th „ .	10·18
	Karjat . .	„ „ .	7·50
THANA . . .	Mokhada . .	„ „ .	7·30
	Umbargaon . .	„ „ .	6·96

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kolaba	Khalapur	13th July	6·85
	Panvel	" "	6·84
Thana	Thana	" "	6·31
	Dahanu	" "	5·85
	Vada	" "	5·30
Kolaba	Karjat	14th "	9·37
	Khalapur	" "	8·10
	Pen	" "	6·60
Thana	Murbad	" "	6·00
Ratnagiri	Mandangad	" "	5·98
Thana	Vada	" "	5·73
North Kanara	Yellapur	" "	5·60
Ratnagiri	Mandangad	15th "	8·20
North Kanara	Sirsi	" "	8·04
	Siddapur	" "	7·40
	Supa	" "	5·40
Kolaba	Mahad	" "	5·36
North Kanara	Bhatkal	17th "	5·04

During the 17th the current began to show symptoms of weakness and the rainfall was light and rather scattered until the 25th when heavy rain commenced in North Kanara and rapidly extended northward. The following gives mean daily rainfall data for the coast districts from the 25th to the 31st:—

District.	Average actual rainfall during 24 hours preceding 8 A.M. of							
	25th July.	26th July.	27th July.	28th July.	29th July.	30th July.	31st July.	Total rainfall of period 25th to 31st July.
	Inches.	Inches.	Inches.	Inches	Inches.	Inches.	Inches.	Inches.
North Kanara	2·15	1·32	3·93	3·08	1·59	0·73	0·93	13·73
Savantvadi	0·16	0·93	6·28	8·90	1·57	1·59	0·54	19·97
Ratnagiri	0·17	0·58	1·06	5·26	1·84	1·05	0·83	10·79
Kolaba	0·59	0·73	0·53	1·92	3·87	1·65	3·61	12·90
Thana	0·27	0·46	0·21	0·35	2·36	1·47	1·94	7·06

During the last burst there were a few heavy falls of rain. This is shown in the following table which gives the falls exceeding 5" in 24 hours;—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
North Kanara	Karwar	25th July.	5·47
Do.	Honavar	27th "	10·95
Do.	Bhatkal	" "	9·93
Savantvadi	Banda	" "	7·14
North Kanara	Ankola	" "	6·42
Savantvadi	Kudal	" "	6·40
North Kanara	Kumta	" "	5·86
Ratnagiri	Vengurla	" "	5·80
Savantvadi	Savantvadi	" "	5·31
Ratnagiri	Vengurla	28th "	12·85
Do.	Ratnagiri	" "	12·25
Savantvadi	Banda	" "	10·75
Do.	Savantvadi	" "	8·72
Ratnagiri	Malvan	" "	8·27
Savantvadi	Kudal	" "	7·22
Ratnagiri	Rajapur	" "	6·92
North Kanara	Bhatkal	" "	6·73
Kolaba	Matheran	" "	6·60
North Kanara	Honavar	" "	5·93
Ratnagiri	Devgad	" "	5·80
Do.	Mandangad	29th "	6·70
Kolaba	Pen	" "	5·68
Do.	Karjat	" "	5·10
Do.	Matheran	31st "	14·80
Thana	Mokhada	" "	5·40
Ratnagiri	Mandangad	" "	5·20

The total rainfall of the Konkan division was approximately normal, as is shown in the following table which gives comparative data for the different districts:—

District.	Rainfall.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
North Kanara	46·25	35·48	+10·77	+30
Savantvadi	51·70	...	...	...
Ratnagiri	37·14	41·23	—4·09	—10
Kolaba	44·41	48·78	—4·37	— 9
Thana	23·93	35·19	—11·26	—32

In the Karnatak the rainfall was less continuous and less general than in the coast districts. In Dharwar, Belgaum and Kolhapur there was moderate daily rain until the 15th. Then a partial break set in which lasted until the 28th when fairly general rain recommenced and lasted till the close of the month. There was moderately heavy rain in the Belgaum and Kolhapur districts on the 2nd and 3rd and heavy rain in the same districts on the 14th and 15th. The following gives data for these dates:—

DISTRICT.	AVERAGE ACTUAL RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF			
	2nd July.	3rd July.	14th July.	15th July.
	Inches.	Inches.	Inches.	Inches.
Belgaum	1·87	1·20	1·15	3·10
Kolhapur and other Southern Maratha country States.	0·67	0·71	0·96	2·23

The total rainfall of the month was about normal in this division, as is shown below:—

DIVISION.	RAINFALL.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
Karnatak	7·37	7·77	—0·40	— 5

In the South Deccan there were two periods of general rain. These periods were from the 8th to the 15th and from the 28th to the end of the month. The following gives the heaviest falls in the first period:—

DISTRICT.	STATION.	DATE.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SATARA . . .	Malcolmpeth . .	8th July. .	4·21
Do. . . .	Do. . .	9th ,, . .	4·60
Do. . . .	Do. . .	10th ,, . .	4·64
Do. . . .	Do. . .	12th ,, . .	5·55
POONA . . .	Lanoli	13th July .	9·75
SATARA . . .	Malcolmpeth . .	,, ,, . .	7·50
POONA . . .	Paud	,, ,, . .	3·96
SATARA . . .	Patan	,, ,, . .	3·44
Do. . . .	Malcolmpeth. . .	14th ,, . .	13·15
POONA . . .	Lanoli	,, ,, . .	11·61
SATARA . . .	Shirala . . .	,, ,, . .	5·60
POONA . . .	Paud	,, ,, . .	4·83
SATARA . . .	Medha. . . .	,, ,, . .	4·72
POONA . . .	Talegaon Dabhada .	,, ,, .	3·53
SATARA . . .	Patan . . .	,, ,, . .	3·52
POONA . . .	Maval (Vadgaon). .	,, ,, . .	3·21
SATARA . . .	Panchgani . . .	,, ,, . .	3·16
Do. . . .	Satara	,, ,, . .	3·12
Do. . . .	Malcolmpeth . .	15th ,, . .	10·19
POONA . . .	Lanoli	,, ,, . .	5·25
SATARA . . .	Patan	,, ,, . .	4·04
Do. . . .	Medha. . . .	,, ,, . .	3·97
Do. . . .	Panchgani . . .	,, ,, . .	3·75
Do. . . .	Karad	,, ,, . .	3·50

And in the second period:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
AHMEDNAGAR .	Parner . . .	28th July .	1·86
SATARA . . .	Malcolmpeth . .	29th ,, . .	4·92
POONA . . .	Lanoli . . .	,, ,, . .	3·60
SATARA . . .	Panchgani . .	,, ,, . .	2·45
Do. . . .	Medha . . .	,, ,, . .	1·97
POONA . . .	Poona . . .	,, ,, . .	1·63
SATARA . . .	Malcolmpeth . .	30th ,, . .	4·16
POONA . . .	Lanoli . . .	,, ,, . .	4·08
Do. . . .	Lanoli . . .	31st ,, . .	5·57
SATARA . . .	Malcolmpeth . .	,, ,, . .	3·06
Do. . . .	Patan . . .	,, ,, . .	1·74
Do. . . .	Medha . . .	,, ,, . .	1·66
Do. . . .	Satara . . .	,, ,, . .	1·56

The total rainfall of the month was about normal, as is shown below :—

Division.	Rainfall.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
South Deccan	13·39	11·33	+2·06	+18

In Khandesh the rainfall distribution was very similar. There were showers from the 1st to the 8th and again from the 16th to the 27th and a fairly general burst of rain between the 9th and the 15th and between the 28th and 31st. The total rainfall was about normal, as is shown below :—

Division.	Rainfall.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
Khandesh	8·28	7·67	+0·61	+ 8

In Gujarat the rainfall during the month was much interrupted. There were some heavy local falls in parts of Surat on the 2nd and 3rd. The following were the principal amounts :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Surat . . .	Balsar	2nd July .	13·81
	Pardi	" " .	10·05
Surat Agency . .	Bansda	" " .	5·93
Surat . . .	Valod	" " .	3·85
	Chikhli	" " .	3·69
Surat Agency .	Dharampur . . .	" " .	2·78
	Bansda . . .	3rd " .	3·73

This rainfall did not extend to other parts of the division, and the only general bursts of rain were those between the 12th and the 14th and between the 28th and the end of the month. At other times the weather was fine and very hot. During the first period of general rainfall the following moderately heavy rainfalls, which were principally confined to the Surat district, were recorded.

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Surat . . .	Chikhli . . .	12th July . .	5·26
	Rander . . .	" " . .	2·18
Surat Agency .	Bansda . . .	" " . .	2·04
	Dharampur . .	13th " . .	8·56
	Bansda . . .	" " . .	8·53
Surat . . .	Pardi . . .	" " . .	8·35
	Balsar . . .	" " . .	7·27
Surat Agency . .	Sachin . . .	" " . .	5·62
Surat . . .	Mandvi . . .	" " . .	5·15
Broach . . .	Vagra . . .	" " . .	3·70
Surat . . .	Surat . . .	" " . .	3·56
	Jalalpor . . .	" " . .	2·12

During the second rainfall period the following were the principal amounts :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Surat . . .	Surat . . .	28th July .	4·72
	Rander . . .	" " .	4·31
Kaira . . .	Borsod . . .	" " .	3·39
Ahmedabad . .	Modasa . . .	" " .	3·12
Surat . . .	Chikhli . . .	29th " .	6·63
Surat Agency . .	Bansda . . .	30th " .	10·03
Surat . . .	Chikhli . . .	" " .	7·10
	Balsar . . .	" " .	5·64
Surat Agency . .	Dharampur . .	" " .	4·31
Surat . . .	Olpad . . .	" " .	4·26
	Jalalpor . . .	" " .	4·12
	Valod . . .	" " .	3·75
Surat Agency . .	Sachin . . .	" " .	3·73
Surat . . .	Surat . . .	" " .	3·66
	Mandvi . . .	" " .	3·55
Broach . . .	Jlav	" " .	3·27
Surat . . .	Rander . . .	" " .	3·25
	Pardi . . .	" " .	3·07
	Jalalpor . . .	31st " .	9·50

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SURAT AGENCY	Bansda	31st July	9·05
BROACH	Amod	" "	7·85
SURAT AGENCY	Dharampur	" "	7·84
SURAT	Pardi	" "	7·36
	Balsar	" "	4·65
	Chikhli	" "	4·62
PANCH MAHALS	Jambughoda	" "	4·61

The total rainfall of the month was less than half the normal. The following gives comparative data for the different districts :—

DISTRICT.	RAINFALL.			
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Surat	19·26	25·51	−6·25	−25
Broach	5·95	17·09	−11·14	−65
Kaira	3·02	19·33	−16·31	−84
Panch Mahals	5·00	17·47	−12·47	−71
Ahmedabad	3·57	13·88	−10·31	−74

In Sind there were a few local showers during the last few days of the month, but the rainfall of this province was largely below the small average total of the month :—

The following gives comparative data of the rainfall of the seven divisions of the Presidency :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Average normal, July.
	Inches.	Inches.	Inches.			
Konkan	38·08	40·04	−1·96	−5	24·6	26·9
Bombay Deccan	10·17	9·39	+0·78	+ 8	12·6	12·2
Khandesh	8·28	7·67	+0·61	+ 8	11·0	11·1
Gujarat	9·06	18·46	−9·40	−51	7·1	17·1
Kathiawar and Cutch	5·49	12·39	−6·90	−56	4·8	11·5
Sind	0·13	1·86	−1·73	−93	0·5	...

The Malabar coast districts of the Madras Presidency obtained daily rain throughout the month, though there was a marked diminution of the rainfall on the 20th and 21st. The principal bursts of rainfall occurred between the 6th and the 9th, on the 14th, 15th and 16th and on the 24th, 27th and 28th when the advance of the monsoon occurred which carried the rainfall northwards over the whole area which depends for its rainfall on the Arabian Sea monsoon current. The daily averages for these days for the Malabar and South Canara coasts were as follows :—

DISTRICT.	AVERAGE ACTUAL RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF									
	6th July.	7th July.	8th July.	9th July.	14th July.	15th July.	16th July.	24th July.	27th July.	28th July.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Malabar	2·00	1·25	1·88	1·82	1·30	1·45	2·42	2·84	3·57	1·10
South Canara	2·98	3·19	3·38	2·83	0·99	1·42	2·40	4·49	6·46	3·45

The heaviest falls in 24 hours exceeding 5″ were as follows :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SOUTH CANARA	Beltangadi	6th July	6·04
Do.	Baindur	7th "	5·70
MALABAR	Vayittiri	14th "	10·12
Do.	Vayittiri	15th "	7·30
Do.	Nilambur	" "	5·50
SOUTH CANARA	Bantval	16th "	5·25
MALABAR	Badagara	" "	5·08
SOUTH CANARA	Mangalore	24th "	10·56
Do.	Kasaragod	" "	8·57
Do.	Karkala	27th "	10·50
Do.	Baindur	" "	8·81
Do.	Coondapur	" "	8·47
Do.	Mangalore	" "	7·20
Do.	Bantval	" "	6·75
MALABAR	Talipparamba	" "	6·45
SOUTH CANARA	Beltangadi	" "	6·04
MALABAR	Calicut	" "	5·53
Do.	Cannanore	" "	5·50
Do.	Badagara	" "	5·43
SOUTH CANARA	Mulki	" "	5·30
Do.	Puttur	" "	5·12
Do.	Puttur	28th "	5·81
Do.	Bantval	" "	5·50

The total rainfall of this division was 25 per cent. above the normal. The following gives comparative data for the division :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Average normal, July.
	Inches.	Inches.	Inches.			
Malabar . .	44·18	35·45	+8·73	+25	27·5	26·8

South Madras received light or moderate scattered showers during the month, but the total rainfall was considerably in excess of the normal. This is shown by the following table giving the rainfall of the division :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Average normal, July.
	Inches.	Inch.	Inch.			
Madras South . .	1·39	0·86	+0·53	+62	2·5	2·0

In South Central Madras including the districts of Coimbatore and Salem there was fairly general rain between the 20th and the 27th and showers at other times. There were no very heavy falls of rain, but the total rainfall of the month was more than twice as heavy as usual. This is shown below :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, July 1900	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Average normal, July.
	Inches.	Inches.	Inches.			
Madras South Central	3·55	1·75	+1·80	+103	6·2	3·6

Showery weather prevailed throughout the month in Central Madras and general rain occurred on the 21st, 30th and 31st. In this division also the total rainfall of the month was largely above the normal. The followi gives comparative data :—

Division.	Rainfall.				Number o rainy days	
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Avera norm Jul
	Inches.	Inches.	Inches.			
Madras Central . .	5·09	2·80	+2·29	+82	8·7	5·

The northern and central divisions of the East Coa received two marked bursts of rainfall, the first betwee the 6th and the 9th, the second between the 28th and tl 31st. In the southern division these two periods wei not reproduced, and the most general falls of rain we reported on the 18th and 19th and between the 24th ar 27th. The total rainfall of the month was in excess in tl south division and normal in the central and north div sions. The following gives data for these three div sions :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.	Average actual, July 1900.	Avera norm July.
	Inches.	Inches.	Inches.			
East Coast, South .	3·93	2·63	+1·30	+49	5·7	4·5
" " Central .	2·43	2·29	+0·14	+ 6	5·8	4·7
" " North .	6·57	7·07	−0·50	− 7	9·3	10·4

Heavy rain fell in the Vizagapatam district of the nort division of the East Coast on the 7th and 8th, when th following large amounts were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Vizagapatam . .	Padwa	7th July .	4·80
Do. . . .	Jeypore . . .	" " .	4·57
Do. . . .	Malkanagiri . . .	" " .	2·70
Do. . . .	Koraput . . .	" " .	2·24
Do. . . .	Jeypore . . .	8th " .	6·95
Do. . . .	Malkanagiri . .	" " .	3·00
Do. . . .	Nowrangapur . .	" " .	2·80
Do. . . .	Koraput . . .	" " .	2·55

The following gives a summary of the rainfall data for each district or collectorate of the Madras Presidency, and shows that the rainfall of the month was in very general excess throughout the Presidency :—

District.	Number of rainy days.		Rainfall.			
	Average actual, July 1900.	Average normal, July.	Average actual, July 1900.	Average normal, July.	Variation of actual from normal, July 1900.	Percentage variation from normal.
			Inches.	Inches.	Inches.	
Ganjam	8	11	4·93	7·81	—2·88	—37
Vizagapatam	5	9	3·70	5·42	—1·72	—32
Godavari	10	9	6·71	6·47	+0·24	+ 4
Kistna	11	8	8·43	5·36	+3·07	+57
Nellore	6	5	2·43	2·29	+0·14	+ 6
Chingleput	6	7	2·87	3·60	—0·73	—20
Madras	8	13	1·88	3·84	—1·96	—51
North Arcot	8	5	4·93	2·99	+1·94	+65
South ,,	6	5	4·91	2·92	+1·99	+68
Tanjore	5	3	3·96	1·95	+2·01	+103
Trichinopoly	4	2	2·26	1·61	+0·65	+40
Madura	3	2	1·99	1·07	+0·92	+86
Tinnevelly	2	2	0·67	0·61	+0·06	+10
Malabar	27	26	37·87	30·29	+7·58	+25
South Canara	29	29	55·64	44·62	+11·02	+25
Salem	8	4	4·63	2·44	+2·19	+90
Coimbatore	5	3	2·30	1·20	+1·10	+92
Nilgiris	19	15	18·42	13·33	+5·09	+38
Cuddapah	8	5	5·14	2·74	+2·40	+88
Anantapur	8	4	5·04	2·02	+3·02	+150
Bellary	8	6	3·20	2·52	+0·68	+27
Kurnool	12	7	6·65	3·74	+2·91	+78

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-system above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	I.—Burma Coast and Bay Islands.				−·001								85·3	+0·9	75·6	+0·8	80·5	+0·9	9·7				
1	Tenasserim and Bay Islands.	Port Blair	61	29·770	+·002	29·762	29·845	15th	29·702	30th	·143	81·5	86·5		78·7*		82·6*		7·8	90·4	22nd	75·3	28th
		Mergui	96	29·763	−·004	29·792	29·822	15th	29·690	29th	·132	77·9	85·3	+1·1	74·2	+2·4	79·8	+1·8	11·1	91·1	22nd	72·4	2 days
		Tavoy	26	29·830	−·014	29·787	29·906	15th	29·764	3rd	·142	77·4	84·2	+0·9	74·5	+0·6	79·4	+0·8	9·7	89·7	25th	73·0	3 days
		Moulmein	94	29·727	−·003	29·759	29·836	15th	29·654	3rd	·182	77·3	84·5	+1·8	74·6	+0·7	79·6	+1·3	9·9	90·0	21st	71·3	15th
2	Lower Burma	Rangoon	41	29·758	−·002	29·736	29·851	16th	29·673	2nd	·178	78·7	85·2	+0·2	75·7	0	80·4	+0·1	9·5	91·1	21st	72·4	15th
		Bassein	27	29·759	+·002	29·721	29·860	16th	29·668	4th	·192	79·2	85·3	+0·5	77·1	+1·4	81·2	+1·0	8·2	90·7	21st	75·6	4 days
		Diamond Island	41	29·752	+·001	29·728	29·848	22nd	29·670	7th	·178	80·8	84·3	−0·2	77·7	?	81·0	?	6·6	87·6	20th	74·2	3rd
5	Arakan	Akyab	20	29·699	+·006	29·662	29·835	22nd	29·580	12th	·255	79·8	85·2	+0·6	73·8	?	79·5	?	11·4	89·9	25th	70·5	17th
3	Central Burma	Toungoo	183	29·599	+·005	29·725	29·700	15th	29·492	2nd	·208	79·4	87·3	+0·9	74·3	−0·6	80·8	+0·2	13·0	93·6	21st & 25th.	71·6	17th
	II.—Burma Inland				+·012								89·8	+0·6	76·4	+0·4	83·1	+0·5	13·3				
3	Central Burma	Thayetmyo	130	29·633	+·020	29·708	29·739	23rd	29·522	4th	·217	80·5	89·3	+0·5	76·7	+0·6	83·0	+0·6	12·6	92·9	25th	73·9	3 days
4	Upper Burma	Minbu	165	29·578	+·018	29·687	29·681	23rd	29·464	3rd	·217	79·6	89·1	?	77·3	+0·3	83·2	?	11·8	93·6	25th	75·6	5 days
		Yamethin	657	29·100	+·018	29·706	29·207	22nd	28·994	2nd	·213	79·5	91·0	+0·7	75·0	+0·7	83·0	+0·7	16·0	99·0	25th	72·7	15th
		Mandalay	250	29·503	?	29·700	29·617	23rd	29·364	4th	·253	83·4	94·5	+0·5	78·8	+0·6	86·7	+0·6	15·7	100·6	7th	73·6	17th
		Kindat	377	29·341	−·007	29·672	29·442	26th	29·237	3rd	·205	79·3	86·6	?	76·2	−0·4	81·4	?	10·4	90·8	30th	73·8	3 days
		Bhamo	381	29·339	?	29·676	29·449	20th	29·233	2nd	·216	77·2	88·0	+0·6	74·6	−0·2	81·3	+0·2	13·4	94·6	7th	71·1	19th
4(a)	Burma Hill Stations.	Maymyo										70·7	71·4		62·8		67·1		8·6	79·0	13th	59·0	26th
		Taunggyi										67·6	71·2	−5·5	63·5	−0·4	67·4	−3·0	7·7	75·2	2 days	59·5	23rd
		Lashio		27·018	+·033		27·149	22nd	26·913	1st	·236	73·2	83·2	0	69·2	+0·1	76·2	+0·1	14·0	88·1	30th	66·0	24th
	III.—Assam				+·015								87·2	−2·2	77·7	−0·3	82·5	−1·3	9·5				
7	Surma	Silchar	104	29·593	+·026	29·649	29·723	25th	29·477	12th	·246	81·0	89·6	−0·4	77·1	0	83·4	−0·2	12·5	98·1	31st	75·2	3 days
8	Brahmaputra	Sibsagar	333	29·343	+·002	29·631	29·478	25th	29·248	13th	·230	80·4	88·0	−2·8	78·4	+0·3	83·2	−1·3	9·6	92·7	31st	77·0	4 days
		Dhubri	115	29·524	+·017	29·593	29·673	25th	29·397	2nd	·276	79·3	84·0	−3·4	77·5	−1·1	80·8	−2·3	6·5	90·2	13th	74·8	3rd
	IV.—Bengal and Orissa				+·022								88·8	+0·2	78·5	+0·2	83·7	+0·2	10·3				
6	East Bengal	Chittagong	87	29·609	+·027	29·643	29·741	23rd	29·474	13th	·267	80·6	86·1	+0·6	76·6	+0·2	81·4	+0·4	9·5	91·5	13th	73·6	26th
		Noakhali	43	29·625		29·615	29·772	23rd	29·476	13th	·296	81·0	86·9		76·0		81·4		10·9	91·2	15th	71·3	3rd
		Comilla	36	29·636		29·620	29·782	23rd	29·477	13th	·305	80·9	87·8		77·0		82·4		10·8	93·3	13th	73·8	1st & 3rd.
		Sirajganj	49	29·574		29·572	29·739	24th	29·423	13th	·316	80·8	86·8		78·1		82·5		8·7	90·3	3 days	74·2	21st
		Narayanganj	26	29·623	+·021	29·598	29·775	24th	29·463	13th	·312	81·7	87·6	−0·7	78·8	−0·4	83·2	−0·6	8·8	91·1	2 days	75·7	23rd
		Barisal†	13	29·643	+·039	29·601	29·799	23rd	29·455	13th	·344	82·0	87·7	+1·1	78·4	+0·3	83·1	+0·7	9·3	92·3	25th	75·1	27th
		Mymensingh	59	29·590	+·016	29·600	29·735	24th	29·460	13th	·275	80·9	85·6	−1·9	78·0	0	81·8	−1·0	7·6	91·7	31st	74·1	3rd
10	Deltaic Bengal	Faridpur	46	29·604		29·597	29·757	24th	29·430	13th	·327	81·6	88·0		78·3		83·2		9·7	91·8	2nd	75·4	23rd
		Jessore	33	29·596	+·020	29·576	29·760	23rd	29·382	13th	·378	82·5	89·0	−0·4	79·1	0	84·1	−0·2	9·9	95·5	2nd	74·7	3rd
		Calcutta	21	29·596	+·025	29·563	29·767	23rd	29·347	13th	·420	82·4	89·7	+1·7	79·2	+0·8	84·5	+1·3	10·5	96·9	2nd	75·2	20th
		Saugor Island	25	29·585	+·020	29·554	29·764	23rd	29·297	13th	·467	83·0	88·9	+1·1	80·9	+0·5	84·9	+0·8	8·0	91·9	2 days	78·1	3 days
		Krishnagar	47	29·575		29·570	29·748	23rd	29·361	13th	·387	83·3	90·4		79·2		84·8		11·2	96·2	2nd	76·2	22nd & 24th.
		Midnapore	149	29·459		29·554	29·631	23rd	29·243	13th	·388	83·2	91·3		79·0		85·1		12·3	100·3	2nd & 3rd.	76·1	3 days

* Mean of 29 days.

Stations in India, Burma, etc., in July, 1900.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st July 1900.	Normal rainfall for period, 1st June to 31st July.	Variation from normal of period, 1st June to 31st July.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				28·07	31·57	−3·50					I.—Burma Coast and Bay Islands.		
1				1	2	14	12	1	S 61° W	12·4		11·0	+13	88	·944	7·7	21			9·02	15·98	− 6·96	20·57	34·77	−14·20	2·30	Port Blair .	Tenasserim and Bay Islands.	1
7	1				1	1	1		S 66° W	2·0	1·8	1·8	0	93	·876	5·5	21			30·17	33·73	− 3·56	65·77	63·86	+ 1·91	3·43	Mergui.		
4						3	1	3	W	0·6				94	·889	7·5	23			54·47	46·34	+ 8·13	102·34	82·55	+19·79	6·42	Tavoy.		
										2·9	3·2	3·8	−16	92	·863	7·6	22	27·75	− 5·75	30·58	45·82	−15·24	65·77	81·54	−15·77	4·28	Moulmein.		
			1	1	8	15	5	1	S 38° W	5·0		5·5	− 9	94	·923	8·2	24	25·36	− 1·36	23·83	21·68	+ 2·15	42·54	39·19	+ 3·35	3·06	Rangoon .	Lower Burma.	2
8				9	8	4	1	1	S 6° E	5·0		4·0	+25	93	·940	7·7	23	27·00	− 4·00	19·04	24·88	− 5·84	49·70	47·44	+ 2·26	2·45	Bassein.		
1				2	5	17	3	3	S 44° W	10·8	10·8	8·9	+21	85	·901	8·5	22	24·00	− 2·00	26·54	26·28	+ 0·26	53·00	49·48	+ 3·52	6·03	Diamond Island.		
	1	3	11	2	12	2			S 48° E	2·3		3·8	−39	94	·965	9·1	26	27·55	− 1·55	45·51	51·54	− 6·03	93·89	95·53	− 1·64	6·47	Akyab .	Arakan.	5
5				16	9	1			S 26° E	5·1	5·0	4·8	+ 4	89	·908	9·2	24	25·09	− 1·09	13·47	17·91	− 4·44	28·05	32·52	− 4·47	1·59	Toungoo .	Central Burma.	3
																				11·08	8·15	+2·93					II.—Burma Inland.		
				15	15	1			S 20° E	5·5		6·7	−18	87	·900	8·4	12	15·91	− 3·91	7·00	6·83	+ 0·17	20·15	13·77	+ 6·38	2·78	Thayetmyo .	Central Burma.	3
				29	2				S 42° E	9·3	11·1			87	·884	7·3	14			7·05	3·38	+ 3·67	16·06	8·37	+ 7·69	1·68	Minbu .	Upper Burma.	4
1				19	11				S 28° E	9·2	9·4			83	·839	8·3	8			5·18	4·36	+ 0·82	11·46	7·28	+ 4·18	1·57	Yamethin.		
4				6	17	4			S 3° E	10·0	10·1			76	·874	5·6	7			3·85	3·17	+ 0·68	6·91	8·96	− 2·05	1·56	Mandalay.		
5				1	3	1			S	0·6	0·6			94	·937	9·7	22			24·24	12·25	+11·99	39·67	27·12	+12·55	4·57	Kindat.		
5	3	1			2	5	2	3	N 88° W	2·2	2·6			95	·890	9·8	19			19·17	18·91	+ 0·26	27·01	32·43	− 5·42	2·88	Bhamo.		
														90	·677												Maymyo .	Burma Hill States.	4(a)
	1	1		2	12	9	6		S 29° W					89	·608	7·9	19			11·79	10·06	+ 1·73	20·26	21·13	− 0·87	3·48	Taunggyi.		
														92	·750	9·0	22			16·83	12·79	+ 4·04	27·25	23·01	+ 4·24	2·64	Lashio.		
																				18·72	17·46	+1·26					III.—Assam.		
9		1	1						N 66° E	1·1	1·9	3·1	−39	91	·967	9·0	25	22·79	+ 2·21	20·45	19·10	+ 1·35	38·74	39·83	− 1·09	2·36	Silchar .	Surma.	7
2	5	7			4	1	1	1	N 23° E	3·8	3·5	2·8	+25	94	·979	9·3	17	19·04	− 2·04	12·56	17·10	− 4·54	29·34	30·79	− 1·45	2·08	Sibsagar .	Brahmaputra.	9
2	1	4	10	2	6	4		2	S 63° E	3·4	4·0	3·9	+ 3	93	·941	8·6	16	16·13	− 0·13	23·14	16·17	+ 6·97	42·41	40·70	+ 1·71	3·16	Dhubri.		
																				16·31	14·53	+1·78					IV.—Bengal and Orissa.		
		1	2	19	9				S 36° E	8·3	8·3	7·2	+15	87	·914	8·4	21	19·81	+ 1·19	18·87	23·20	− 4·33	46·31	45·89	+ 0·42	3·25	Chittagong .	East Bengal.	6
		1	4	14	7	4	1		S 30° E	6·3	5·8			91	·963	7·6	21	20·12	+ 0·88	27·09	23·74	+ 3·35	61·66	47·93	+13·73	4·06	Noakhali.		
			3	19	9				S 50° E	8·2				85	·893	8·0	22	19·22	+ 2·78	23·79	16·38	+ 7·41	44·35	34·03	+10·32	2·74	Comilla.		
6		2	5	11	6	1			S 45° E	2·8	3·0			93	·979	8·9	14	14·23	− 0·23	13·82	11·50	+ 2·32	29·93	22·62	+ 7·31	6·27	Sirajganj.		
			4	14	7	4		2	S 29° E	8·4		7·3	+15	90	·982	8·9	16	18·31	− 2·31	11·89	13·78	− 1·89	21·46	26·84	− 5·38	1·71	Narayanganj.		
3		1	3	10	11	2			S 25° E	4·9				91	·992	8·3	22	20·50	+ 1·50	21·49	15·76	+ 5·73	39·90	31·78	+ 8·12	4·80	Barisal.		
1			6	8	5	1			S 45° E	1·5	1·5			92	·968	8·4	26	19·27	+ 6·73	39·86	15·56	+24·30	60·67	33·74	+26·93	5·70	Mymensingh.		
9			2	11	9				S 30° E	2·5	3·0			92	1·002	7·7	18	17·16	+ 0·84	14·48	12·21	+ 2·27	25·40	24·59	+ 0·81	2·21	Faridpur .	Deltaic Bengal.	10
4			2	6	9				S 25° E	2·6	2·6	4·6	−43	90	1·000	8·9	17	17·39	− 0·39	10·17	11·21	− 1·04	25·77	23·71	+ 2·06	1·56	Jessore.		
			4	7	10	9		1	S 5° E	5·1		5·3	− 4	89	·991	8·8	16	18·04	− 2·04	8·68	12·46	− 3·78	18·83	23·20	− 4·37	1·41	Calcutta.		
	1	4	5		11	9	1		S 4° E	15·6		14·2	+10	89	1·013	8·5	11	17·00	− 6·00	16·39	15·34	+ 1·05	30·93	25·18	+ 5·75	3·30	Saugor Island.		
	1		8	6	14	2			S 20° E	4·9				87	·997	7·7	11	15·92	− 4·92	8·67	10·62	− 1·95	13·63	19·95	− 6·32	2·74	Krishnagar.		
4	2	5		4	15	1			S 25° E	2·3	3·0			86	·979	4·7	14	15·65	− 1·65	15·57	11·63	+ 3·94	21·57	21·05	+ 0·52	4·56	Midnapore.		

† Mean of 30 days.

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
11	Central Bengal	Bankura	298	29·274		29·521	29·444	25th	29·076	13th	·368	82·0	91·5		78·8		85·1		12·7	100·6	3rd	74·6	5th	26
		Raniganj	334	29·256		29·537	29·418	23rd	29·071	13th	·347	81·9	91·8		78·9		85·4		12·9	100·2	3rd	73·9	5th	26
		Burdwan	99	29·515	+·025	29·560	29·682	2 days.	29·304	13th	·378	82·9	91·1	+0·9	79·9	+0·5	85·5	+0·7	11·2	98·4	3rd	76·8	27th	21
		Naya Dumka	489	29·112		29·556	29·278	25th	28·941	13th	·337	81·9	89·0		76·8		82·9		12·2	94·5	2nd	71·3	4th	23
		Berhampore	67	29·546	+·017	29·561	29·717	24th	29·359	13th	·358	82·7	90·0	+0·6	79·0	+0·3	84·5	+0·5	11·0	93·3	2nd	75·8	4th	17
		Rampur Boalia.	70	29·514?		29·533?	29·679	24th	29·347	13th	·332	82·6	88·7		79·0		83·8		9·7	92·1	3rd	75·6	21st	16
		Malda	72	29·532		29·556	29·712	24th	29·386	13th	·326	81·6	89·1		78·7		83·9		10·4	93·1	31st	75·0	21st	18
		Bogra	61	29·572		29·585	29·733	24th	29·430	13th	·303	81·3	87·9	−0·6	78·1	−0·1	83·0	−0·4	9·8	92·2	8th	74·7	2nd	17
12	North Bengal	Dinajpur	123	29·489	+·006	29·566	29·694	24th	29·364	13th	·280	80·8	88·4	−0·7	77·8	−1·1	83·0	−0·9	10·6	94·3	31st	74·4	2 days	19
		Rangpur	123	29·511		29·588	29·660	24th	29·384	13th	·276	81·3	87·9		75·1		81·5		12·8	95·2	31st	70·8	10th	24
		Jalpaiguri	284	29·361	+·026	29·602	29·510	24th	29·254	2nd	·256	80·1	86·9	−1·4	77·0	+0·4	82·0	−0·5	9·9	94·4	31st	74·1	22nd	20
		Cooch Behar	156	29·491		29·602	29·635	24th	29·379	1st	·256	80·7	87·0		78·0		82·6		9·0	95·4	31st	74·6	24th	20
17	North Bihar	Purnea	125	29·499	+·032	29·579	29·665	24th	29·365	13th	·300	81·4	88·6	−1·6	78·2	−0·3	83·4	−1·0	10·4	93·2	27th	73·2	22nd	20
14	Orissa	Balasore	46	29·568	+·040	29·561	29·759	25th	29·351	13th	·408	82·4	89·8	+1·4	78·8	+0·5	84·3	+1·0	11·0	99·0	2nd	75·7	3rd	23
		False Point.	21	29·595	+·006	29·558	29·773	20th & 23rd.	29·398	13th	·375	82·9	88·1	+0·5	79·2	+0·8	83·7	+0·7	8·9	96·5	1st	76·1	2 days	20
		Cuttack	80	29·538	+·017	29·560	29·711	20th	29·370	13th	·341	82·7	92·4	+2·6	79·7	+1·2	86·1	+1·9	12·7	101·4	2nd	77·2	3 days	21
		Shortt's Island.	25	29·593		29·561	29·828	23rd	29·356	13th	·472	84·2	89·9		81·0		85·5		8·9	97·4	2nd	76·4	13th	21
		Puri	20	29·604		29·566	29·781	20th	29·415	31st	·366	83·4	89·4		80·4		84·9		9·0	95·7	30th	74·6	6th	21
	V.—Gangetic Plain and Chota Nagpur.				+·011								91·3	+1·6	79·0	+0·9	85·2	+1·2	12·4					27
15	Chota Nagpur	Hazaribagh.	2,007	27·611	+·013	29·549	27·772	25th	27·456	14th	·316	78·0	86·4	+1·9	75·5	+2·0	81·0	+2·0	10·9	97·2	3rd	73·3	14th & 28th.	23
		Ranchi	2,128	27·490	+·018	29·546	29·653	25th	27·333	13th	·320	77·2	85·9	+2·2	74·5	+2·0	80·2	+2·1	11·4	98·2	2nd	71·9	14th	26
		Daltonganj	730?	28·841		29·521	29·031	25th	28·669	14th	·362	81·0	93·1		77·4		85·3		15·7	107·1	2nd	72·0	25th	35
		Purulia		28·791		29·547	28·951	24th	28·623	13th	·328	81·5	90·8		78·8		84·8		12·0	100·1	3rd	76·9	5 days	23
		Chaibassa	760	28·828		29·532	28·998	25th	28·656	13th	·342	82·0	90·1	+0·9	78·6	+1·3	84·4	+1·1	11·5	94·1	3rd & 5th.	76·0	15th & 22nd,	18
16	South Bihar	Gaya	375	29·204	+·004	29·530	29·388	25th	29·017	14th	·371	83·9	94·3	+2·9	80·1	+1·5	87·3	+2·2	14·2	105·2	3rd	74·8	4th	30
		Dehri	351	29·220		29·522	29·404	25th	29·032	14th	·372	84·0	92·5		80·1		86·3		12·4	107·9	days	74·0	4th	33
		Patna	183	29·409	+·012	29·543	29·583	23rd	29·270	14th	·313	82·7	90·4	+0·1	79·1	−0·6	84·8	−0·3	11·3	95·0	3 days	74·2	4th	20
		Arrah	190	29·382		29·523	29·561	25th	29·221	14th	·340	83·0	91·4		79·7		85·6		11·7	101·0	3rd	73·0	4th	28
		Buxar	239	29·331		29·523	29·523	25th	29·151	14th	·372	83·3	90·7		78·9		84·8		11·8	103·5	3rd	72·6	4th	30
17	North Bihar	Bhagalpur	160	29·439		29·551	29·601	23rd & 24th,	29·286	13th	·315	82·4	89·3		78·7		84·0		10·6	92·7	26th & 31st.	74·6	3rd	18
		Darbhanga	166	29·435	+·016	29·553	29·600	23rd	29·308	2nd	·292	81·5	88·5	−0·8	79·2	−0·6	83·8	−0·7	9·3	93·3	27th	73·5	2nd	19
		Muzaffarpur	178	29·423		29·553	29·590	25th	29·298	13th	·292	81·6	89·0		78·2		83·5		10·8	92·7	9th	71·7	2nd	21
		Motihari	224	29·376		29·557	29·546	25th	29·249	2nd	·297	81·3	88·1		77·6		82·9		10·5	92·0	10th & 14th.	71·8	2nd & 23rd,	22
		Chapra	181	29·403		29·537	29·578	25th	29·257	14th	·321	82·7	91·2		79·4		85·3		11·8	98·3	3rd	74·1	4th	24
18	N.-W. Provinces (East).	Benares	267	29·291	+·004	29·511	29·488	25th	29·100	14th	·388	83·9	93·2	+1·8	80·9	+1·3	87·1	+1·6	12·3	110·3	3rd	75·5	20th	34
		Allahabad	309	29·247	+·002	29·507	29·451	25th	29·092	14th	·359	85·6	95·4	+4·0	81·3	+2·0	88·4	+3·0	14·1	111·6	1st & 3rd.	75·8	18th	35
23	N.-W. Provinces (East Sub-montane).	Gorakhpur	256	29·334	+·032	29·548	29·525	25th	29·201	14th	·324	82·3	91·2	+0·3	78·8	−0·7	85·1	−0·2	12·4	97·6	10th	74·7	3rd & 23rd.	22
19	South Oudh	Lucknow	368	29·188	+·003	29·512	29·395	25th	29·035	1st	·360	83·7	93·7	+1·7	79·7	+0·4	86·7	+1·1	14·0	106·8	2nd	75·3	3 days	31
20	North Oudh	Bahraich	403	29·167	+·010	29·527	29·872	25th	29·033	1st	·339	83·1	92·3	+0·5	78·9	0	85·6	+0·3	13·4	101·6	2nd	69·0	4th	32
21	N.-W. Provinces (Central).	Cawnpore	416	29·136	+·012	29·501	29·338	25th	29·001	2nd	·337	84·6	95·6	+2·7	80·7	+1·4	88·2	+2·1	14·9	109·0	2nd & 3rd.	76·0	18th	33
		Mainpuri	516	29·029	+·001	29·496	29·218	25th	28·879	2nd	·339	85·2	95·8	+2·3	81·0	+1·4	88·4	+1·9	14·8	109·2	3rd	76·5	8th	32

—continued.

tations in India, Burma, etc., in July 1900—continued.

Wind Direction. Number of winds from									Wind Resultant.	Wind Velocity.				Hygrometry—8 A.M.		Mean cloud amount.	Rainfall.									Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
	N.	NE.	E.	SE.	S.	SW.	W.	NW.		Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Mean humidity.	Mean vapour tension.		Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st July 1900.	Normal rainfall for period, 1st June to 31st July.	Variation from normal of period, 1st June to 31st July.				
4		1	7	5	4				S 58° E	3·4	3·9			86	·941	7·4	11	17·23	−6·23	5·01	12·68	−7·67	10·68	22·64	−11·96	1·27	Bankura	Central Bengal.	11
1		1	7	6	3	3			S 48° E	1·4				88	·955	6·0	10	16·46	−6·46	6·04	13·22	−7·18	10·51	22·49	−11·98	2·04	Raniganj.		
4	1	3	7	2	3	10	1		S 21° E	4·0	3·9	4·3	− 9	87	·987	8·8	15	16·27	−1·27	7·79	11·71	−3·92	15·83	20·63	− 4·80	2·53	Burdwan.		
6		2	9	4	5	4	1		S 45° E	1·8	2·0			88	·953	9·1	20	18·66	+1·34	15·26	13·71	+1·55	22·72	22·93	− 0·21	2·77	Naya Dumka.		
8			9		12	1	1		S 28° E	3·1	2·9	5·0	−42	89	1·002	8·9	16	16·71	−0·71	16·81	10·71	+6·10	23·67	20·09	+ 3·58	8·70	Berhampore.		
4		1	6	7	8	3	2		S 27° E	3·9	4·0			89	·998	8·9	17	15·03	+1·97	12·90	11·59	+1·31	22·55	21·50	+ 1·05	3·90	Rampur Boalia.		
	1	1	9	12	7	1			S 50° E	3·3	3·1			92	·986	8·0*	11	15·73	−4·73	11·44	11·95	−0·51	24·14	22·29	+ 1·85	3·07	Malda.		
														90	·967	8·3	17	15·84	+1·16	19·35	13·49	+5·86	40·06	27·05	+13·01	3·60	Bogra.		
	1	3	10	7	5	3	1	1	S 58° E	5·2	6·0			90	·949	8·8	20	16·26	+3·74	21·06	14·38	+6·68	46·41	29·87	+16·54	3·95	Dinajpur	North Bengal.	12
		3	9	8	8	2	1		S 47° E	?	?			90	·967	7·4	20	15·19	+4·81	22·58	16·30	+6·28	47·58	34·92	+12·66	6·12	Rangpur.		
4		6	11	6	1	2	1		S 83° E	1·4	1·8			93	·951	4·1	23	20·07	+2·93	35·13	29·24	+5·89	57·06	55·66	+ 1·40	11·66	Jalpaiguri.		
12		2	8	6	2		1		S 69° E	1·8	1·8			92	·964	8·5	24			27·36	22·94	+4·42	47·17	58·61	−11·44	4·00	Cooch Behar.		
5	12	14							N 24° E	2·9	4·4	2·9	+52	93	1·000	7·9	22	17·00	+5·00	21·06	15·12	+5·94	44·31	26·08	+18·23	2·80	Purnea	North Bihar.	17
1	2	2		1	6	11	3		S 42° W	4·8				85	·950	6·8	13	15·08	−2·08	10·70	13·04	−2·34	20·06	22·11	− 2·05	2·45	Balasore	Orissa.	14
3	2	1	1	2	2	10	10		S 60° W	10·0	9·6	10·5	− 9	88	·989	9·1	15	14·77	+0·23	16·79	13·41	+3·38	22·59	22·78	− 0·19	6·00	False Point.		
10		2	1		2	10	6		S 54° W	2·6		3·2	−19	84	·937	7·9	14	16·35	−2·35	8·42	12·91	−4·69	12·18	24·44	−12·26	1·56	Cuttack.		
		2	1	2	4	17	3	2	S 41° W	17·2	21·0			83	·977	6·7	16			10·40	10·87	−0·47	21·07	19·91	+ 1·16	3·16	Shortt's Island.		
8	3					16	2	2	S 65° W	10·4	10·3			85	·974	6·1	9	13·04	−4·04	6·98	9·80	−2·82	14·21	17·86	− 3·65	2·30	Puri.		
																				9·50	12·37	− 2·62					V.—Gangetic Plain and Chota Nagpur.		
	1	1	7	2	13	5	2		S 14° E	8·3	7·4	8·4	−12	82	·789	9·9	15	18·86	−3·86	5·56	14·16	−8·60	14·01	21·79	− 7·78	1·08	Hazaribagh	Chota Nagpur.	
1		4	4	1	7	8	5	1	S 22° W	7·4	7·2			86	·800	9·0*	11	19·34	−8·34	7·24	14·30	−7·06	16·88	22·78	− 5·90	3·04	Ranchi.		
										4·0	4·8			85	·905	4·7	13	16·57	−3·57	6·79	12·92	−6·13	12·12	18·95	− 6·83	2·21	Daltonganj.		
14		2	3	3	4	4	1		S 21° E	1·1				84	·900	6·2	14			4·18			9·45			0·89	Purulia.		
23			1	1		3	3		S 45° W	2·1	1·8			84	·923	5·3	10	16·76	−6·76	8·56	13·48	−4·92	13·59	22·01	− 8·42	2·22	Chaibassa.		
2		9	1	4	4	7	2	2	S 27° E	6·6	6·0	2·9	+107	80	·926	7·5	12	15·69	−3·69	4·91	13·10	−8·19	12·45	19·66	− 7·21	2·23	Gaya	South Bihar.	16
4	1		10	4	4	6	1	1	S 38° E	5·0	5·8			80	·922	7·6	14	14·62	−0·62	5·85	11·73	−5·88	10·12	17·64	− 7·52	1·20	Dehri.		
1		9	12	4	2	1	1	1	N 84° E	5·8	6·9	3·6	+92	90	1·007	8·5	12	13·96	−1·96	14·69	11·75	+2·94	22·59	19·09	+ 3·50	6·12	Patna.		
4	1		11	6	4	2	1	2	S 58° E	2·5	2·6			88	·991	6·7	15	15·03	−0·03	15·78	12·11	+3·67	20·03	18·25	+ 1·78	8·37	Arrah.		
	2	1	14	7	1	1	5		S 74° E	5·0	4·5			85	·974	7·6	11	14·07	−3·07	10·42	11·68	−1·26	14·48	16·88	− 2·40	2·40	Buxar.		
6		4	7	11	3				S 50° E	3·6	3·3			91	1·000	9·2	17	15·61	+1·39	16·93	12·73	+4·20	35·69	20·27	+15·42	4·80	Bhagalpur	North Bihar.	17
8	1	2	10	8	1		1		S 76° E	3·4		5·0	−32	90	·875	7·8	16	14·20	+1·80	12·16	12·39	−0·23	24·37	19·95	+ 4·42	1·73	Darbhanga.		
21			6	4					S 72° E	2·7	2·4			91	·985	5·6	15	14·34	+0·66	12·58	12·46	+0·12	23·55	20·11	+ 3·44	1·95	Muzaffarpur.		
	1	6	21	1			2		S 83° E	5·4				94	1·004	5·5	16	12·60	+3·40	11·60	13·39	−1·79	20·91	22·57	− 1·66	1·45	Motihari.		
9		2	14	5	1				S 81° E	3·2	3·9			89	·990	8·2	13	14·15	−1·15	9·28	12·06	−2·78	17·65	18·34	− 0·69	2·38	Chapra.		
6	1	2	8	4	1	7	1	1	S 45° E	3·1	3·5	4·8	−27	81	·932	8·4	15	14·27	+0·73	8·75	10·74	−1·99	11·48	15·87	− 4·39	1·69	Benares	N.-W. Provinces (East).	18
2		4	9	2	2	5	5	2	S 29° E	7·6	8·7	6·3	+38	78	·932	7·7	11	14·18	−3·18	9·14	12·33	−3·19	9·38	18·02	− 8·64	2·73	Allahabad.		
1	4	14	6	2	2	2			N 65° E	1·9		2·8	−32	88	·966	8·1	14	13·91	+0·09	8·19	13·67	−5·48	10·43	23·35	−12·92	1·90	Gorakhpur	N.-W. Provinces (East Submontane).	23
2	4	1	14	2	3	1	2	2	N 85° E	3·2	3·5	3·9	−10	81	·932	7·9	9	13·64	−4·64	8·08	11·25	−3·17	10·52	16·68	− 6·16	1·63	Lucknow	South Oudh.	19
1			24	2	2		1	1	S 84° E	4·4	4·1			86	·969	5·7	11			14·47	12·49	+1·98	15·93	18·13	− 2·20	4·63	Bahraich	North Oudh.	20
3	2	4	8	5	2	6		1	S 65° E	2·6				83	·963	5·9	8	12·10	−4·10	6·88	10·05	−3·17	8·73	13·59	− 4·86	2·13	Cawnpore	N.-W. Provinces (Central).	2
6	1		11	1	5	1	6		S 75° E	2·6	2·6			76	·914	7·9	9			6·92	11·07	−4·15	8·21	11·07	− 5·86	2·07	Mainpuri		

* Mean of 29 days.

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Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	VI.—Upper Sub-Himalayas				**−·001**								**95·7**	**+1·3**	**80·3**	**+1·4**	**88·0**	**+1·4**	**15·4**				
24	N.-W. Provinces (West Submontane).	Bareilly	569	28·986	+·007	29·513	29·184	25th	28·850	2nd	·334	82·3	92·1	+0·4	79·2	+0·5	85·7	+0·5	12·9	104·4	2nd	73·6	6th
		Dehra Dun	2,233	27·380	−·004	29·536	27·538	25th	27·255	2nd	·283	77·7	86·6	+1·3	74·4	+0·2	80·5	+0·8	12·2	96·5	2nd	67·5	4th
		Roorkee	887	28·671	−·001	29·515	28·841	25th	28·531	2nd	·310	82·5	92·0	0	79·1	+1·0	85·6	+0·5	12·9	107·2	2nd	72·1	6th
22	N.-W. P. (West)	Meerut	738	28·800	−·005	29·495	28·960	25th	28·649	2nd	·311	83·4	94·1	+1·1	80·4	+0·8	87·3	+1·0	13·7	108·6	3rd	74·3	10th
26	South-East-Punjab.	Delhi	718	28·823	0	29·494	28·987	26th	28·706	3rd	·281	85·8	96·6	+2·6	82·4	+1·9	89·5	+2·3	14·2	109·2	3rd	77·0	15th
28	Central Punjab.	Lahore	702	28·808	−·003	29·465	28·975	25th	28·630	2nd	·345	88·6	103·8	?	83·8	+3·4	93·8	?	20·0	116·6	2nd & 3rd.	72·9	31st
27	South Punjab	Sirsa	662	?	?	?	?	?	?	?	?	90·3	103·9*?	+4·4*?	85·2*?	+4·3*?	94·7*?	+4·4*?	18·7	115·3	4th	77·0	14th
		Patiala	818	28·725		29·500	28·891	26th	28·574	2nd	·317	84·5	94·8		80·5		87·7		14·3	110·5	2nd	73·5	17th
29	Punjab (Submontane).	Ludhiana	812	28·702	−·022	29·470	28·870	26th	28·525	2nd	·345	85·4	97·4	−0·5	82·4	+2·4	89·9	+1·0	15·0	115·4	3rd	74·1	16th
		Sialkot	830	28·697	+·007	29·484	28·891	25th	28·504	2nd	·387	86·9	101·2	+3·6	82·2	+3·0	91·8	+3·3	19·0	118·5	2nd & 3rd.	73·1	29th
		Umballa	892	28·654	+·001	29·501	28·826	26th	28·515	2nd	·311	82·5	93·5	−0·2	79·7	+1·1	86·6	+0·5	13·8	111·9	2nd	74·0	5th & 6th.
31	North Punjab	Rawalpindi	1,676	27·870	+·010	29·487	28·059	25th	28·701	3rd	·358	85·2	100·6	+3·2	78·7	+2·0	89·7	+2·6	21·9	117·0	2nd & 3rd.	71·1	6th & 15th.
	VII.—Indus Valley and North-West Rajputana.				**−·007**								**104·1**	**+3·7**	**83·8**	**+2·9**	**94·0**	**+3·3**	**20·2**				
31	North Punjab	Peshawar	1,110	28·419	+·004	29·484	28·610	26th	28·246	2nd & 3rd.	·364	89·1	106·5	+3·8	80·8	+1·6	93·6	+2·7	25·7	118·0	2nd	72·4	6th
32	West Punjab	Khushab	612	28·886	+·004	29·456	29·054	26th	28·694	2nd	·360	88·9	104·0	?	84·3	+2·6	94·2	?	19·7	117·9	2nd	72·8	15th
		Montgomery	558	28·925	−·011	29·434	29·092	26th	28·751	2nd	·341	92·3	107·4	+3·1						117·0	3rd		
		D. I. Khan	594	28·896	−·024	29·425	29·081	26th	28·709	2nd & 3rd.	·372	90·0	106·1	+3·3	84·6	+2·2	95·4	+2·8	21·5	118·2	3rd	74·1	12th & 13th.
		Mooltan	420	29·044	−·017	29·422	29·220	26th	28·876	3rd	·344	90·9	106·6	+3·4	88·0	+5·0	97·3	+4·2	18·6	114·5	28th	82·1	14th
47	Sind	Jacobabad	186	29·277	−·008	29·419	29·465	26th	29·143	3rd	·322	90·7	112·5	+5·1	85·9	+2·0	99·2	+3·6	26·6	123·0	2nd	81·1	29th
		Hyderabad	96	29·419	+·011	29·466	29·584	26th	29·265	13th	·319	86·7	101·7	+2·9	81·8	+1·3	91·8	+2·1	19·9	108·7	14th	79·0	25th
		Kurrachee	30	29·545	+·015	29·525	29·684	26th	29·375	13th	·309	84·9	93·7	+2·0	83·2	+2·6	88·4	+2·3	10·5	97·4	2nd	80·2	31st
51	West Rajputana	Bikaner	771	28·753	−·039	29·476	28·933	26th	28·574	13th	·359	89·4	105·7	+5.6	85·5	+5·5	95·6	+5·6	20·2	112·9	2nd	80·0	14th
		Pachpadra	380	29·196		29·526	29·337	20th	29·023	13th	·314	86·9	102·8		82·2		92·5		20·6	109·0	2nd	78·0	28th
		Jodhpur	782	28·785		29·537	28·925	23rd & 25th	28·606	13th	·319	85·2	101·0		82·0		91·5		19·0	109·2	2nd	77·3	28th
	VIII.—East Rajputana, Central India, and Gujarat.				**+·019**								**95·5**	**+5·9**	**80·2**	**+3·0**	**87·9**	**+4·5**	**15·2**				
50	East Rajputana	Jaipur	1,431	28·172	+·023	29·543	28·363	25th	28·044	13th	·319	84·6	98·6	+6·8	80·9	+4·0	89·8	+5·4	17·7	112·2	2nd	74·6	13th
		Kotah	819	28·756			28·927	25th	28·610	14th	·317	86·5	97·8		83·6		90·7		14·2	112·6	2nd	75·6	15th
		Sambhar	1,254	28·338	+·033	29·535	28·506	25th	28·206	14th	·300	85·1	98·6	+6·7	81·8	+4·0	90·2	+5·4	16·8	111·0	2nd	75·9	15th
		Ajmer	1,611	27·996	+·015	29·547	28·182	25th	27·852	13th & 14th.	·330	83·5	96·6	+5·7	80·5	+3·8	88·6	+4·8	16·1	108·9	2nd	75·1	13th
		Udaipur	1,925	27·715		29·572	27·852	25th	27·557	14th	·295	81·3	93·3		77·6		85·5		15·7	102·5	1st	72·8	14th
		Deesa	466	29·157	+·025	29·573	29·292	20th	29·000	13th	·292	84·6	99·5	+8·2	81·0	+3·5	90·3	+5·9	18·5	107·1	2nd	75·0	28th
46	Kathiawar and Cutch.	Bhuj	395	29·222	+·027	29·566	29·358	20th	29·061	13th	·297	85·1	95·5	+5·4	79·9	+1·8	87·7	+3·6	15·6	102·3	27th	76·4	28th
		Jamnagar	61	29·575		29·582	29·700	20th	29·420	13th	·280	85·7	94·4		80·4		87·4		14·0	99·1	3 days.	75·2	28th
		Rajkot	429	29·218	+·022	29·595	29·341	20th	29·057	13th	·284	83·7	97·3	+7·2	78·4	+2·9	87·9	+5·1	18·9	104·9	2nd	73·7	28th
		Veraval		29·652	+·019	29·612	29·767	21st	29·521	13th	·246	82·1	85·1	+1·4	80·6	+1·6	82·9	+1·5	4·5	88·6	28th	75·3	30th
		Bhavnagar Para.	35	29·622	+·016	29·601	29·740	20th	29·486	13th	·254	85·2	97·7	+5·2	80·0†	+1·0†	88·8†	+3·1	17·7	104·1	4th	71·8	4th
49	Central India	Nowgong	757	28·822	+·007	29·527	29·007	25th	28·680	14th	·327	83·9	94·3	+4·3	80·5	+2·5	87·4	+3·4	13·8	110·5	1st & 2nd.	75·5	6th
		Indore	1,823	27·847	+·029	29·606	27·974	23th	27·689	14th	·285	78·6	89·6	+5·6	74·9	+2·6	82·2	+4·1	14·7	100·8	2nd	70·1	14th
		Neemuch	1,630									80·7	93·0	+6·0	76·3	+2·5	84·7	+4·3	16·7	103·5	2nd	70·0	5th
45	Gujarat	Surat	39	29·644	+·009	29·625	29·762	20th	29·495	13th	·267	83·7	92·3	+5·2	80·2	+3·0	86·3	+4·1	12·1	99·7	27th	75·5	3 days.
		Ahmedabad	164	29·504	+·033	29·614	29·636	20th	29·340	14th	·296	85·8	99·7	+9·1	81·6	+3·7	90·7	+6·4	18·1	106·3	3rd	75·1	28th

* Mean of 28 days.

I—*continued.*

Stations in India, Burma, etc., in July, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st July 1900.	Normal rainfall for period, 1st June to 31st July.	Variation from normal of period, 1st June to 31st July.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				9·28	11·49	−1·86					VI.—Upper Sub-Himalayas.		
12		6	7	6					E	1·5	1·4	4·1	− 66	87	·947	7·5	13	13·45	− 0·45	14·40	16·18	−1·78	17·57	21·85	− 4·28	3·05	Bareilly	N.-W. Provinces (West, Sub-montane).	24
18	2		1	3	3	2		2	S 6° E	1·3		1·2	+ 8	86	·806	7·1	20	21·27	− 1·27	24·02	29·25	−5·23	28·16	38·50	−10·34	3·12	Dehra Dun.		
13			2	13	3				S 43° E	3·8		2·9	+ 31	79	·868	5·8	10	11·82	− 1·82	11·98	12·45	−0·47	14·84	17·16	− 2·32	3·75	Roorkee.		
13		1	6	8		1	2		S 59° E	1·6		2·3	− 30	80	·900	8·2	12	10·18	+ 1·82	12·75	9·54	+3·21	13·81	11·98	+ 1·83	5·46	Meerut.	N.-W. P. (West).	22
7		1	10	5			6	2	S 78° E	5·7	5·3	4·5	+ 18	71	·854	6·2	9	8·64	+ 0·36	4·71	9·22	−4·51	6·07	12·57	− 6·50	1·06	Delhi	South-East Punjab.	26
3		2	8	12	4		2		S 56° E	4·3		3·3	+ 30	64	·846	3·4	5	6·45	− 1·45	6·14	6·67	−0·53	6·36	8·51	− 2·15	4·50	Lahore	Central Punjab	28
		4		13	2	8		4	S 17° E	9·5	11·1	4·8	+131	66	·910	1·5	0	5·55	− 5·55	0	4·58	−4·58	0·61	6·49	− 5·88	0	Sirsa	South Punjab.	27
5	2		5	11	5	1		2	S 48° E	4·0‡				78	·915	4·5	9			5·44			7·14			1·81	Patiala.		
4	1	3	1	13	6		3		S 38° E	4·3	3·8	2·0	+ 90	70	·833	4·9	5	9·36	− 4.36	5·02	10·33	−5·31	6·51	12·74	− 6·23	3·21	Ludhiana	Punjab (Submontane).	29
		9	14	5	1			2	N 82° E	4·8		2·5	+ 52	64	·785	3·6	9	8·45	+ 0·55	8·29	8·52	−0·23	8·50	11·60	− 3·10	1·90	Sialkot.		
5			5	21					S 53° E	3·1				85	·934	6·2	8			11·70	10·86	+0·84	12·06	14·69	− 2·63	5·47	Umballa.		
27		1	1		2				S 52° E	4·0	3·7	2·1	+ 76	66	·772	3·4	9	8·64	+0·36	6·93	8·75	−1·82	6·93	10·46	− 3·53	2·26	Rawalpindi	North Punjab.	31
																				0·50	2·86	−2·36					VII.—Indus Valley and North-West Rajputana.		
12	8	4					1	6	N 9° W	2·5	2·7	4·4	− 39	58	·771	1·7	1	1·91	− 0·91	0·19	1·79	−1·60	0·26	2·14	− 1·88	0·12	Peshawar	North Punjab	31
2		15	11	2			1		N 68° E	9·5	11·0			63	·848	1·7	2	3·20	− 1·20	0·96	2·86	−1·90	1·72	3·56	− 1·84	0·59	Khushab	West Punjab	
		4	4	5	4	12	2		S	11·4	9·8			50	·763	1·7	0	3·60	− 3·60	0	3·27	−3·27	0	4·51	− 4·51	0	Montgomery.		
6	3	15	1	4	2				N 58° E	2·5	2·7	2·4	+ 13	62	·867	1·0	2	3·64	− 1·64	1·11	2·87	−1·76	1·15	3·41	− 2·26	0·98	D. I. Khan.		
2		2	1	2	5	19			S 27° W	3·4	4·2	3·4	+ 24	62	·884	0·8	0	2·82	− 2·82	0	2·94	−2·94	0·13	3·53	− 3·40	0	Mooltan.		
7			3	19	2				S 47° E	4·7	4·9	5·3	− 8	61	·880	0·7	0	1·45	− 1·45	0	1·28	−1·28	0	1·40	− 1·40	0	Jacobabad	Sind.	47
					2	27	2		S 45° W	15·9‡	16·5‡	13·9	+ 19	64	·804	2·5	0	3·18	− 3·18	0·02	2·67	−2·65	0·02	3·00	− 2·98	0·02	Hyderabad.		
						11	18	2	S 76° W	14·9	18·6	17·8	+ 4	80	·955	5·8	1	3·64	− 2·64	0·10	3·47	−3·37	0·10	3·99	− 3·89	0·10	Kurrachee.		
1					10	12	7	1	S 42° W	12·6		6·7	+ 88	61	·844	2·1	2			1·02	3·67	−2·65	1·22	5·33	− 4·11	0·60	Bikaner	West Rajputana	51
1					7	18	4	1	S 42° W	15·0	17·2	9·8	+ 76	63	·809	5·7	5			0·75	2·64	−1·89	0·75	3·33	− 2·58	0·21	Pachpadra.		
1					4	14	11	1	S 58° W	9·6	8·6			67	·805	5·7	4			1·35	4·03	−2·68	2·68	5·62	− 2·94	0·48	Jodhpur.		
																				6·36	10·64	−4·01					VIII.—East Rajputana Central India and Gujarat		
6	1	1	1	1		8	12	1	S 75° W	5·4		6·2	− 13	71	·819	4·7	6	12·90	− 6·90	9·14	9·37	−0·23	9·87	11·86	− 1·99	3·47	Jaipur	East Rajputana.	50
	3	2		1		8	10	7	N 81° W	7·0	8·3			66	·809	4·5	9			10·58	9·85	+0·73	11·18	13·42	− 2·24	3·18	Kotah.		
4	2	1	1	1		2	17	3	N 82° W	9·1		9·1	0	68	·800	4·3	9	10·20	− 1·20	4·13	7·83	−3·70	4·46	9·23	− 4·77	0·76	Sambhar.		
2						10	16	3	S 79° W	9·9		6·9	+ 43	72	·812	4·5	7	10·27	− 3·27	3·98	7·29	−3·31	3·98	9·57	− 5·59	1·35	Ajmer.		
11	1					9	8	2	S 75° W	3·3	3·3			72	·743	5·2	9			5·99			6·05			1·77	Udaipur.		
	1	1			4	13	10	2	S 63° W	16·8		14·5	+ 16	71	·829	6·6	6	10·73	− 4·73	3·96	10·99	−7·03	3·96	13·15	− 9·19	1·26	Deesa.		
	2				3	8	17	1	S 75° W	21·6		16·6	+ 30	78	·914	6·4	2			2·84	6·94	−4·10	2·84	8·88	− 6·04	2·22	Bhuj	Kathiawar and Cutch.	46
				2	7	16	5	1	S 39° W	1·0	1·0			75	·912	5·0	5			2·41			2·41			0·85	Jamnagar.		
					3	12	13	3	S 68° W	14·4	14·3	14·5	− 1	83	·959	5·0	6	12·91	− 6·91	5·48	13·46	−7·98	5·48	18·19	−12·71	2·59	Rajkot.		
		1			2	12	16		S 68° W	12·1	14·3			87	·950	7·4	4			6·01	8·95	−2·94	6·16	15·28	−9·12	1·88	Veraval.		
				2	23	4	1	1	S 7° W					69	·829	7·4	6			6·00	5·63	+0·37	6·00	10·78	− 4·78	1·84	Bhavnagar Para.		
4	1	1	2		2	4	17		S 80° W	3·1	3·1	4·2	− 26	79	·911	7·7	11	15·73	− 4·73	5·27	14·41	−9·14	6·00	20·24	−14·24	1·89	Nowgong	Central India.	49
10						1	17	3	N 86° W	7·5		6·8	+ 10	81	·784	7·8	13	13·73	− 0·73	9·89	8·51	+1·38	11·51	15·30	− 3·79	1·72	Indore.		
1		2				15	12	1	S 69° W	13·7	12·3	12·2	+ 1	85	·889	5·9	9	11·73	− 2·73	8·58	9·89	−1·31	9·95	14·16	− 4·21	2·12	Neemuch.		
3				1	3	22	2		S 41° W	7·5	12·3	15·7	− 22	80	·933	8·4	8	16·45	− 8·45	13·38	18·28	−4·90	13·48	28·40	−14·92	4·72	Surat	Gujarat.	45
1	1				3	19	2	5	S 58° W	5·1				71	·857	6·8	8			4·60	14·73	−10·13	4·60	22·05	−17·45	1·11	Ahmedabad		

† Mean of 30 days.

‡ Mean of 29 days.

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute
22	N.-W. P. (West)	Agra	555	28·988	−·005	29·193	29·178	25th	28·854	2nd & 14th.	·324	87·8	98·2	+5·3	84·0	+3·8	91·2	+4·6	14·2	112·5	1st	77·9	7th	3
21	N.-W.P. (Central)	Jhansi	858	28·725	+·011	29·527	28·904	25th	28·576	14th.	·328	85·7	97·0	+6·3	82·2	+3·8	89·6	+5·1	14·8	113·9	1st	76·6	16th & 30th.	3
	IX.—Deccan				+·010								88·7	+3·1	73·7	+1·5	81·2	+2·3	14·9					28
38	Bombay Deccan	Belgaum	2,539	27·251	+·002	29·726	27 322	21st	27·164	13th	·158	70·8	77·0	+1·4	67·8	+0·9	72·4	+1·2	9·2	82·8	21st	65·8	15th & 24th.	1
		Sholapur†	1,590	28·154	−·004	29·688	28·243	21st	28·047	13th	·196	77·9	90·9*	+2·1*	73·5*	+2·2*	82·3*	+2·2	17·4	97·2	1st	70·0	14th	2
		Poona	1,840	27·898	+·002	29·679	27·994	21st	27·769	13th	·225	76·1	85·1	+3·3	71·8	+1·1	78·5	+2·2	13·3	93·5	23rd & 26th.	68·4	13th & 14th.	2
		Bijapur	1,946	27·826	+·009	29·711	27·903	21st	27·716	13th	·187	75·7	87·7	+1·7	71·4	+0·6	79·6	+1·2	16·3	93·2	27th	69·3	18th	2
40	Khandesh	Malegaon	1,130	28·269?	+·017?	29·645?	28·360	20th	28·111	13th	·249	79·4	90·8	+4·1	74·1	+1·1	82·5	+2·6	16·7	96·9	6th	71·7	15th	2
		Ahmednagar	2,152	27·601	+·024	29·686	27 705	21st	27·464	13th	·241	76·8	86·0	?	70·9	+0·4	78·5	?	15·1	92·9	1st & 27th.	66·4	19th	2
41	Berar	Akola	930	28·744	+·010	29·620	28·855	20th	28·603	13th	·252	80·4	91·9	+3·8	76·1	+2·1	84·0	+3·0	15·8	104·7	2nd	71·7	10th & 14th.	3
		Amraoti	1,215	28·454	+·016	29·619	28·585	20th	28·310	13th	·275	79·0	90·3	+3·5	74·9	+1·8	82·6	+2·7	15·4	103·3	2nd	69·8	10th	3
42	Central Provinces (West).	Khandwa	1,044	28·612	+·012	29·608	28·741	24th	28·460	14th	·281	80·9	89·9	+4·0	77·5	+2·6	84·3	+3·3	13·5	104·2	2nd	72·1	10th	3
		Hoshangabad	1,006	28·635	+·025	29·596	28·770	25th	28·484	13th	·286	80·8	89·7	+6·7	77·6	+2·6	85·2	+4·7	15·2	106·4	2nd	72·7	11th	3
		Nagpur	1,025	28·618	+·010	29·597	28·769	23rd	28·476	14th	·293	78·4	92·8	+2·6	75·8	+1·1	82·8	+1·9	13·9	104·1	2nd	73·1	3 days	3
43	Central Provinces (Central).	Chanda	634	29·043	−·004	29·621	29·184	23rd	28·908	13th	·276	80·3	91·0	+2·3	76·9	+1·4	83·4	+1·9	13·0	104·2	1st & 2nd.	73·1	14th	3
		Seoni	2,033	27·625	+·017	29·589	27·766	20th	27·475	14th	·291	76·6	86·6	+3·1	73·5	+1·0	80·1	+2·1	13·1	99·8	1st	71·0	28th	2
		Jubbulpore	1,327	28·275	+·002	29·552	28·430	23rd	28·126	14th	·304	78·7	89·8	+4·2	75·2	+0·6	82·5	+2·4	14·6	105·0	1st	70·1	17th	3
		Saugor	1,807	27·824	+·020	29·568	27·977	25th	27·668	14th	·309	79·1	89·4	+4·4	75·4	+1·9	82·4	+3·2	14·0	103·9	1st	71·1	6th	3
49	Central India	Sutna	1,040	28·537	+·015	29·528	28·717	25th	28·388	14th	·329	82·7	92·5	+5·7	78·9	+2·2	85·7	+4·0	13·6	108·6	1st	72·1	18th & 28th.	3
44	Central Provinces (East).	Raipur	970	28·657	+·018	29·575	28·809	23rd	28·498	14th	·311	79·6	89·4	+3·3	75·4	+0·8	82·4	+2·1	14·0	99·4	2nd & 3rd.	72·6	18th	2
		Sambalpur	486	29·133	+·015	29·566	29·292	20th	28·981	13th	·311	81·7	89·4	+2·1	79·0	+1·6	84·2	+1·9	10·4	97·6	3rd	75·2	6th	2
39	Hyderabad (North).	Indur										78·4	87·2		74·4		80·8		12·8	98·8	2nd	71·2	10th	2
		Bidar	2,165?	27·621?		29·721?	27·719	1st	27·590	21st	·129	75·1	86·1*		55·8		71·1*		30·3	92·0	21st	51·6	31st	4
	Hyderabad (South).	Gulbarga	1,502	28·251		29·703	28·331	21st	28·143	13th	·188	76·5	89·4		72·3		80·8		17·1	95·5	6th	64·3	3rd	3
		Raichur	1,309	28·454?	−·001?	29·712?	28·537	21st	28·366	13th	·171	77·2	89·5	−0·1	73·6	+0·5	81·6	+0·2	15·9	94·6	21st	69·6	6th	2
		Hyderabad (Dn.)	1,690	28·037	+·009	29·671	28·128	20th & 21st.	27·927	13th	·201	76·6	87·1	+1·0	73·3	+2·1	80·2	+1·6	13·8	93·4	1st & 2nd.	69·2	29th	2
		Secunderabad	1,787	27·949	−·005	29·679	28·036	21st	27·845	13th	·191	76·1	88·2	+2·1	73·0	+1·8	80·6	+2·0	15·2	95·7	2nd	69·0	31st	2
		Hanumkonda	865	28·819		29·628	28·916	20th	28·702	13th	·214	79·4	89·1		75·5		82·3		13·6	98·8	1st & 2nd.	62·2	5th	3
	X.—West Coast				−·003								83·8	+0·9	76·2	+1·3	80·0	+1·1	7·6					1
37	Konkan	Bombay	37	29·698	−·003	29·675	29·797	21st	29·553	13th	·244	82·0	86·8	+2·6	79·4	+2·1	83·1	+2·4	7·4	89·0	6th & 27th.	74·0	13th	1
		Ratnagiri	110	29·655	−·007	29·703	29·732	21st	29·552	13th	·180	81·2	85·7	+2·0	77·8	+2·5	81·8	+2·3	7·9	91·4	5th	74·4	28th	1
		Mormugao	60	29·750	−·001	29·745	29·817	21st	29·653	27th	·164	80·1	84·1	+0·6	76·7	+0·6	80·4	+0·6	7·4	88·5	3rd	72·4	16th	1
		Goa	199	29·597	−·005	29·733	29·657	21st	29·504	27th	·153	79·4	82·2	0	76·5	+0·7	79·4	+0·4	5·7	84·5	3 days	74·0	3 days	1
		Karwar	44	29·780	−·005	29·756	29·839	6th	29·705	27th	·134	79·4	83·0	0	76·3	+1·7	79·7	+0·9	6·7	85·7	2nd & 4th.	72·5	6th	1
33	Malabar	Cochin	11	29·895	−·003	29·833	29·941	6th & 16th.	29·853	13th	·088	79·5	84·6	+1·3	74·6	+0·7	79·6	+1·0	10·0	87·5	4th & 15th.	71·7	24th & 27th.	1
		Calicut	27	29·855	−·014	29·810	29·913	16th	29·795	13th	·118	77·5	82·4	+0·3	74·8	+1·3	78·6	+0·8	7·6	86·8	22nd	73·0	5 days	1
		Mangalore	65	29·801	−·012	29·798	29·853	31st	29·742	27th	·111	78·5	83·2	+0·5	74·7	+0·6	79·0	+0·6	8·5	87·3	2nd	71·4	17th	1
		Trivandrum	198	29·687	+·019	29·817	29·751	2nd	29·633	19th	·118	77·2	81·8	−0·1	74·9	?	78·4	?	6·9	84·5	14th	72·5	4 days	1
	XI.—South India				−·003								91·5	+0·8	75·8	+0·8	83·7	+0·8	15·7					25
57	Madras (South)	Pamban	37	29·801		29·765	29·888	2nd	29·740	14th	·148	82·8	88·8		78·3		83·6		10·5	91·3	7th	74·2	9th & 10th.	1
		Tinnevelly	168	29·681	+·011	29·778	29·742	1st	29·628	27th	·114	84·9	96·1	+0·7	79·4	+0·1	87·8	+0·4	16·7	101·3	21st	77·9	8 days.	2
		Madura	447	29·372	−·009	29·752	29·422	31st	29·307	13th	·115	84·3	96·4	−0·9	76·4	+0·3	86·4	−0·3	20·0	100·0	18th	71·5	23rd	3
		Periyakulam		28·884			28·933	16th	28·827	13th	·106	79·9	93·0		72·6		82·8		20·4	99·3	22nd	69·8	22nd	3

* Mean of 29 days. † Mean of 30 days.

—continued.

ations in India, Burma, etc., in July, 1900—continued.

Wind Direction. Number of winds from N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st July 1900.	Normal rainfall for period, 1st June to 31st July.	Variation from normal of period, 1st June to 31st July.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
	1		11		16		1	S 11° W	5·0	5·9	5·0	+18	70	·898	6·1	8	13·00	−5·00	4·54	11·50	−6·96	5·66	14·04	−8·38	1·77	Agra	N.-W. P. (West).	21
	1	2	1	10	9	4	1	S 26° W	5·5		4·1	+34	73	·878	4·2	15	14·36	+0·64	7·65	12·60	−4·95	8·04	17·49	−9·45	1·64	Jhansi	N.-W.P. (Central).	21
																			11·63	11·18	+0·37						IX.—Deccan.	
1				2	3	17	6	N 88° W	22·7*		27·9	−19	93	·696	9·1	19	22·91	−3·91	21·80	15·37	+6·43	33·12	21·96	+11·16	4·75	Belgaum	Bombay Deccan.	38
				1	13	14	1	S 68° W	14·3*	10·3*	12·3	−16	72	·682	8·2	10	9·45	+0·55	4·05	4·29	−0·24	10·41	9·30	+1·11	1·42	Sholapur.		
	2				8	15	4	S 86° W	16·5	18·6	16·9	+10	81	·728	7·8	14	12·73	+1·27	11·63	6·87	+4·76	12·98	11·60	+1·38	2·68	Poona.		
			1		12	14		S 68° W	8·5	8·3			78	·695	6·5	5	6·40	−1·40	4·57	1·51	+3·06	8·21	4·20	+4·01	3·23	Bijapur.		
1				1	7	15	7	W	14·1	16·2	11·8	+37	73	·719	5·6	9	8·55	+0·45	3·70	4·75	−1·05	5·97	9·47	−3·50	1·31	Malegaon	Khandesh.	40
4	1			2	2	15	7	N 73° W	12·1	14·8			81	·722	6·8	10			5·11	3·09	+2·02	11·85	8·25	+3·60	1·30	Ahmednagar.		
1	1	1	1	1	4	15	6	N 86° W	13·2‡	12·5‡	8·4	+49	76	·783	8·0	12	13·18	−1·18	7·09	10·81	−3·72	12·88	16·28	−3·40	1·61	Akola	Berar.	41
1		1	2	3	9	14	1	S 64° W	13·1	11·7	7·6	+54	82	·814	8·0	13	12·73	+0·27	6·61	10·62	−4·01	9·35	17·46	−8·11	1·16	Amraoti.		
	1				4	19	6	N 85° W	10·6		8·4	+26	76	·797	7·0	16	11·91	+4·09	11·13	8·82	+2·31	13·37	14·87	−1·50	1·75	Khandwa	Central Provinces (West).	42
	1				29		1	S 47° W	6·2	6·3	4·5	+40	73	·780	6·7	11	17·27	−6·27	18·15	17·59	+0·56	19·79	25·79	−6·00	4·52	Hoshangabad		
					6	9	3	S 82° W	8·9		10·1	−12	87	·846	8·4	22	17·64	+4·36	14·32	14·73	−0·41	17·01	23·47	−6·46	2·17	Nagpur.		
1		6		3	3	15		S 70° W	3·8		6·2	−39	82	·842	8·4	18			18·75	18·88	−0·13	22·21	26·73	−4·52	4·07	Chanda	Central Provinces (Central)	43
3	1	1	1	1	9	8	7	N 88° W	3·3		6·2	−47	88	·803	8·2	19	18·64	+0·36	11·62	18·15	−6·53	15·23	28·72	−13·49	1·34	Seoni.		
	1		2	8	7	12	1	S 50° W	4·3		5·0	−14	87	·852	7·6	17	19·27	−2·27	14·28	20·89	−6·52	14·98	29·90	−14·92	1·79	Jubbulpore.		
		1		2	6	20	2	S 79° W	2·8	3·2	5·1	−37	83	·827	6·6	19	15·64	+3·36	12·99	15·10	−2·11	15·46	22·50	−7·04	2·31	Saugor.		
2	1	1	1	1	12	6		S 58° W	6·7	7·2	9·4	−23	79	·871	6·5	16	15·73	+0·27	17·15	15·17	+1·98	17·44	21·71	−4·27	3·43	Sutna	Central India.	19
				2	19	3		S 47° W	8·6	7·9	11·6	−32	86	·866	5·1	13	16·36	−3·36	11·36	16·47	−5·11	20·64	25·39	−4·75	1·95	Raipur	Central Provinces (East).	44
1		1	1	4	13	8	3	S 58° W	4·5	4·4	3·6	+22	80	·873	9·4	15			14·72	22·16	−7·44	25·56	33·29	−7·73	4·10	Sambalpur.		
					12	8	5	S 76° W	12·2	11·7			82†	·799†	7·3	15			20·15	10·64	+9·51	21·23	15·24	+5·99	3·47	Indur.	Hyderabad (North).	39
					6	19	2	S 83° W					87	·751	6·2	16			10·87	9·29	+1·58	17·42	15·59	+1·83	2·64	Bidar.		
		1			5	19	4	S 88° W	14·3	13·8			84	·768	8·5	13			8·49	4·89	+3·60	15·61	9·71	+5·90	2·81	Gulbarga	Hyderabad (South).	53
				1	28	1		S 45° W	15·6	15·3			79	·762	5·6	11			8·29	4·45	+3·84	13·73	8·35	+5·38	2·53	Raichur.		
						18	5	N 80° W	8·8	8·5			81	·742	8·0	13			11·51	6·90	+4·61	16·29	11·75	+4·54	1·72	Hyderabad (Dn.).		
					5	23	1	S 84° W	11·7		13·3	−12	80	·726	7·1	13			8·84	6·90	+1·94	12·63	11·75	+0·88	1·86	Secunderabad		
1	3	17	1		1		6	N 69° E?	12·5	10·6			79	·795	6·5	11			13·47			17·40			4·00	Hanumkonda		
																			30·74	28·96	+1·77						X.—West Coast.	
		1	5	1	4	18	2	S 71° W	14·6		19·1	−24	86	·951	8·3	20	21·91	−1·91	20·00	27·17	−7·17	37·39	46·54	−9·15	3·40	Bombay	Konkan.	37
		1	5		6	15	2	S 68° W	7·8	7·7	13·7	−44	86	·918	8·4	22	26·36	−4·36	27·93	35·51	−7·58	64·31	66·77	−2·46	11·98	Ratnagiri.		
1	1	1	2	1		16	9	N 73° W	13·4†				90	·933	8·6	24			31·43	31·28	+0·15	70·97	53·30	+17·67	8·21	Mormugao.		
	1	5	1		2	21		S 85° W					90	·910	9·9	27			33·46	33·70	−0·24	65·19	63·79	+1·40	8·32	Goa.		
1				2		12	4	S 76° W	7·5				86	·851	8·3	26	27·45	−1·45	50·81	38·97	+11·84	105·40	76·21	+29·19	10·43	Karwar.		
4	3			1	2	9	7	N 57° W	9·0				88	·852	8·0	24	23·91	+0·09	18·02	21·51	−3·49	46·32	49·92	−3·60	2·07	Cochin	Malabar.	33
6	1	2	1	4	1	5	9	N 48° W	9·9§	11·8§			91	·851	9·2	27	26·63	+0·37	34·30	29·35	+4·95	69·13	62·57	+6·56	5·53	Calicut.		
				1	2	7	6	N 82° W	3·5		3·2	+9	92	·903	9·5	28	28·10	−0·10	54·21	36·09	+18·12	94·00	71·12	+22·88	10·56	Mangalore.		
9					1	4	17	N 41° W	8·3				85	·795	7·8	20			6·47	7·08	−0·61	17·20	20·03	−2·83	0·88	Trivandrum.		
																			4·09	3·44	+0·49						XI.—South India.	
	1		3	1	20	4	1	S 45° W	12·8	13·5			78	·876	2·9	1	1·30	−0·30	2·01	0·71	+1·30	2·16	0·75	+1·41	2·01	Pamban	Madras (South)	57
1					6	12	12	N 78° W	8·1	7·8			61	·737	7·0	0	0·90	−0·90	0	0·33	−0·33	0·29	1·04	−0·75	0	Tinnevelly.		
2					6	9	8	N 79° W	2·9	2·9	4·6	−37	65	·771	5·4	3	1·45	+1·55	1·56	2·28	−0·72	1·88	3·78	−1·90	0·86	Madura.		
3	4	4		1			1	N 45° E	3·7	4·0			68	·685	6·2	6			2·32			3·42			1·17	Periyakulam.		

§ Mean of 28 days. ‡ Mean of 17 days.

Table

Abstract of Observations taken at 8 A.M. at 219

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
34	Madras, (South Central).	Salem	940	28·901	−·015	29·782	28·949	29th	28·833	14th	·116	78·9	93·7	+1·1	74·0	+1·7	83·9	+1·4	19·7	99·4	1st & 21st.	71·0	21st & 27th.	28·4
		Coimbatore	1,348	28·485	−·007	29·779	28·541	6th	28·407	13th	·134	77·4	87·1	−0·9	71·7	+1·1	79·4	+0·1	15·4	90·4	2nd & 16th.	68·8	24th	21·6
35	Coorg	Mercara	3,781	26·146	−·024		26·190	4th & 15th.	26·110	3 days	·080	65·0	69·5	+0·8	63·4	+1·2	66·5	+1·0	6·1	76·0	3 days	61·7	3 days	14·3
36	Mysore	Chitaldroog	2,405	27·409	−·008	29·737	27·457	6th	27·331	13th	·126	73·0	83·5	+2·0	69·2	+0·8	76·4	+1·4	14·3	89·1	23rd	67·4	7th	21·7
		Bangalore	3,021	26·849	−·014	29·772	26·891	16th	26·771	13th	·120	70·1	82·8	+1·0	66·9	+1·3	94·9	+1·2	15·9	86·3	3 days	65·3	3 days	21·0
		Hassan	3,091	26·793		29·792	26·838	6th	26·725	14th	·113	70·6	78·2		66·1		72·2		12·1	86·7	22nd	64·9	7th	21·8
		Mysore	2,518	27·254	−·006	29·794	27·398	6th	27·288	13th	·110	72·6	83·8†	+1·4†	67·7	+0·6	75·8†	+1·0†	16·1	91·1	22nd	66·0	7th & 25th.	25·1
56	Madras, East Coast, South.	Negapatam*	31	29·785	−·002	29·744	29·833	2nd	29·722	13th	·111	84·0	96·0	+1·1	79·2	+1·4	87·6	+1·3	16·8	101·5	2nd	73·4	26th	28·1
		Cuddalore	12	29·780	−·003	29·721	29·827	20th	29·713	13th	·116	84·1	96·6	+1·2	79·6	+1·7	88·1	+1·5	17·0	103·3	1st	73·7	25th	29·6
		Trichinopoly	255	29·571	−·002	29·758	29·606	16th	29·507	13th	·099	83·0	97·4	+0·4	78·6	+1·3	88·0	+0·9	18·8	100·6	3 days	72·9	23rd	27·7
		Madras	22	29·754	−·011	29·707	29·824	20th	29·681	13th	·143	84·1	95·9	+0·3	79·2	+0·7	87·5	+0·5	16·7	103·5	1st	74·5	18th	29·0
		Vellore	707	29·095		29·741	29·153	21st	29·030	13th	·123	81·5	95·1		80·7		87·9		14·4	99·9	1st	75·2	19th	24·7
55	Madras, East Coast, Central.	Nellore	71	29·680	+·008	29·683	29·761	20th	29·599	13th	·162	85·6	97·7	+1·1	79·5	−0·1	88·6	+0·5	18·2	104·3	2nd	73·1	30th & 31st,	31·2
		Masulipatam	15	29·708	+·006	29·658	29·823	21st	29·621	14th	·202	82·5	92·2	+0·1	78·1	+0·2	85·2	+0·2	14·1	101·7	3rd	73·1	31st	28·6
54	Madras, Central	Cuddapah	433	29·340	−·002	29·710	29·412	21st	29·249	13th	·163	83·4	96·7	+2·8	78·8	+1·4	87·8	+2·1	17·9	102·2	2nd & 11th.	72·7	19th	29·5
		Kurnool	924	28·831	−·010	29·699	28·902	21st	28·737	13th & 14th.	·165	78·5	90·8	+0·4	74·3	+0·1	82·6	+0·3	16·5	98·7	1st	71·4	8th & 30th.	27·3
		Bellary	1,475	28·305	−·004	29·722	28·361	21st & 24th,	28·222	13th	·139	79·1	91·7	+0·8	75·1	+0·8	83·4	+0·8	16·6	98·2	21st	68·2	22nd	30·0
52	Madras, East Coast, North.	Cocanada	26	29·655	+·003	29·616	29·800	20th	29·553	13th	·247	82·4	91·6	+0·4	79·3	+0·4	85·5	+0·4	12·3	102·6	2nd	74·0	31st	28·6
		Waltair (Vizag).	226	29·423	−·003	29·589	29·530	20th	29·302	13th	·288	83·1	90·6	+1·3	79·4	+0·8	85·0	+1·1	11·2	95·9	7th	74·4	31st	21·5
		Gopalpur	21	29·602	+·015	29·563	29·778	20th	29·445	31st	·333	83·9	88·6	+1·4	79·6	+0·5	84·2	+1·0	9·0	95·8	30th	75·6	5th	20·2
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·494			25·680	26th	25·380	3rd & 13th.	·300	88·1	101·9		69·5		85·7		32·4	110·0	4 days	64·0	17th	46·0
		Pishin											98·5		65·4		82·0		33·1	103·9	9th	54·0	17th	49·9
		Quetta	5,502	24·449	+·024		24·577	26th	24·369	13th	·208	73·1	94·9	+2·3	65·7	+0·4	80·6	+1·4	29·2	100·1	8th	55·4	16th	44·7
		Kalat										82·6	94·4		55·6		75·0		38·8	99·7	8th	47·4	1st	52·3
		Chaman	4,311	25·509	+·086		25·651	26th	24·432	3rd	·219	88·8	103·5	+2·3	76·4	+1·2	90·0	+1·8	27·1	109·2	8th	69·1	13th	40·1
30	Punjab	Leh	11,503	19·672	+·029		19·773	26th	19·567	14th	·206	58·8	75·8	−3·3	49·9	−0·7	62·9	−2·0	25·9	81·7	24th & 25th,	43·9	1st	37·8
		Srinagar	5,204	24·685	+·014		24·869	25th	24·607	17th	·262	70·7	86·3	+0·7	64·9	+0·5	75·6	+0·6	21·4	91·3	25th	59·2	1st & 3rd,	32·1
		Gulmarg		21·782			21·928	25th	21·703	13th	·225	63·4	70·1		50·7		60·4		19·4	75·4	31st	45·3	1st	30·1
		Skardu		22·678			22·832	26th	22·584	12th	·248	72·4	90·1		64·1		77·1		26·0	97·6	29th	58·2	17th	39·4
		Dras		20·734			20·843	26th	20·661	13th	·182	63·7	82·3		47·3		64·8		35·0	88·0	3 days	37·6	3rd	50·4
		Gilgit		24·871			25·077	24th	24·558	18th	·519	83·3	101·5		73·4		87·5		28·1	108·4	9th	63·2	25th	45·7
		Chitral		24·418			24·600	24th	24·325	19th & 31st.	·275	80·3	97·6		67·8		82·7		29·8	104·7	8th	59·0	15th	45·7
		Kilia Drosh										82·2	97·1		73·7		85·4		22·4	105·0	8th	65·1	13th & 14th,	39·9
		Para Chinar	6,000									76·8	88·4		67·8		78·1		20·6	98·1	2nd	59·4	14th	38·7
		Cherat		25·483	−·004		25·648	26th	25·355	3rd	·293	77·9	93·4	+5·3	74·2	+3·8	83·9	+4·6	19·2	106·5	3rd	65·6	13th	40·9
		Murree	6,333	23·732	+·036		23·818	26th	23·645	9th	·173	69·0	78·5	+1·3	61·1	−1·6	69·8	−0·2	17·4	94·4	2nd & 3rd,	54·9	15th	39·5
		Poo											79·1		59·4		69·3		19·7	85·3	20th	54·9	16th & 17th.	30·
		Simla	7,224	23·000	+·028		23·142	25th	22·904	14th	·238	63·7	70·6	+1·3	60·6	0	65·7	+0·7	10·0	82·6	3rd	56·1	6th	26·
35	N.-W. Provinces.	Chakrata	7,022	23·179	+·047		23·316	25th	23·099	17th	·217	64·0	69·6	−0·3	60·0	−0·1	64·8	−0·2	9·6	76·2	2nd	55·7	6th	20·
		Mussooree	6,705	23·433	+·026		23·568	25th	23·346	13th	·222	64·2	71·1	+1·2	61·6	+1·2	66·3	+1·2	9·5	81·3	2nd	56·4	4th	24·
		Ranikhet	6,069	23·967	+·028		24·126	25th	23·874	3rd	·252	67·1	75·4	+1·7	63·9	+1·1	69·7	+1·4	11·5	83·0	2nd	60·0	4th	23·
		Muktesar		22·744			22·883	25th	22·659	13th	·224		71·4		58·9		65·2		12·5	80·7	4th	55·4	4th	25·

* Mean of 30 days. † Mean of 27 days.

-continued.

ations in India, Burma, etc., in July, 1900—continued.

Wind Direction. Number of winds from N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st July 1900.	Normal rainfall for period, 1st June to 31st July.	Variation from normal of period, 1st June to 31st July.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Districts.
		2	21	4				S 41° E	5·8	5·2	4·7	+11	79	·785	6·6	9	6·91	+2·09	7·88	3·96	+3·92	8·76	7·64	+1·12	2·14	Salem	Madras (South Central).	34
				1	18	12		S 61° W	5·5		8·2	−33	79	·753	6·8	4	4·36	−0·36	1·31	1·23	+0·08	3·59	2·66	+0·93	0·44	Coimbatore.		
					9	15	7	S 87° W	8·3	7·7	11·3	−32	97	·610	9·8	30	29·30	+0·70	37·20	42·50	−5·30	75·77	68·21	+7·56	3·37	Mercara	Coorg.	35
					16	15		S 67° W	13·5	11·7			82	·674	9·5	6			2·06	2·77	−0·71	4·63	5·87	−1·24	0·59	Chitaldroog	Mysore.	36
				1	21	9		S 56° W	12·8	11·1	8·6	+29	87	·644	9·2	13	9·00	+4·00	4·30	4·59	−0·29	7·27	8·04	−0·77	0·73	Bangalore.		
					8	17	6	S 88° W	5·4	4·8			88	·657	9·7	18			7·35	5·02	+2·33	13·42	9·14	+4·28	1·68	Hassan.		
					20	11		S 61° W	12·9	13·9			81	·643	9·3	5			1·70	2·32	−0·62	4·16	4·44	−0·28	0·31	Mysore.		
				1	10	10		S 65° W	6·5	7·1	7·1	0	67	·780	5·1	3	3·64	−0·64	4·65	2·27	+2·38	4·83	4·01	+0·82	3·12	Negapatam	Madras, East Coast, South.	56
			2	6	12	9	2	S 51° W	3·5	4·3			78	·857	5·7	5	5·60	−0·60	3·10	2·67	+0·43	3·50	4·15	−0·65	2·05	Cuddalore.		
					6	20	3	S 86° W	10·2		9·9	+ 3	65	·730	6·6	2	2·18	−0·18	1·76	1·50	+0·26	3·72	3·12	+0·60	1·56	Trichinopoly.		
				5	8	17	1	S 67° W	7·5		8·3	−10	68	·795	7·5	8	7·00	+1·00	1·88	3·87	−1·99	3·34	5·98	−2·64	0·35	Madras.		
					17			S 45° W	4·2				68	·724	6·2	8			9·34			11·47			5·00	Vellore.		
			2	3	1	12	12	N 80° W	9·6				65	·789	8·1	4	4·70	−0·70	1·38	2·50	−0·62	3·92	4·00	−0·08	1·17	Nellore	Madras, East Coast, Central.	55
1		1		2	3	11	10	N 78° W	10·7		9·7	+10	80	·890	8·4	12	9·36	+2·64	10·73	5·71	+5·02	12·35	11·23	+1·12	3·55	Masulipatam.		
		2	2		4	13	10	N 82° W					68	·772	8·1	7	6·00	+1·00	3·57	3·90	−0·33	5·05	8·01	−2·96	1·04	Cuddapah	Madras, Central	34
1					2	23	1	N 58° W					77	·752	7·8	15	9·83	+5·17	11·52	4·91	+6·61	14·17	8·86	+5·31	2·02	Kurnool.		
					1	22	1	W	11·6	12·3	11·6	+ 6	58	·572	9·0	5	3·91	+1·09	3·41	1·98	+1·43	4·48	3·83	+0·65	1·09	Bellary.		
1	2		2	2	10	10	3	S 70° W	10·2	9·4			78	·872	7·3	7	10·00	−3·00	2·80	6·67	−3·87	4·07	12·04	−7·97	0·62	Cocanada.	Madras, East Coast, North.	58
	1	2			27			S 42° W	14·5				75	·844	7·6	6			4·96	5·09	−0·13	8·93	8·58	+0·35	1·93	Waltair (Vizag).		
4		2		3	16	2	1	S 51° W	14·5	14·2	11·3	+26	86	·990	2·8	8	11·33	−3·33	3·98	7·00	−3·92	10·96	13·99	−3·03	1·70	Gopalpur.		
																										XII.—Hill Stations.		
1			9	3	4		6	S 6° W	4·0				43	·561	1·1	2			0·48	2·55	−2·07	0·48	3·80	−3·32	0·29	Shahrig	Baluchistan.	18
																0			0	0·21	−0·21		0·27		0	Pishin.		
								Calm	1·8	1·9	5·1	−63	57	·556	1·1	2	1·36	+0·64	1·05	1·21	−0·16	1·05	1·33	−0·28	0·90	Quetta.		
6		1		18		4		S 9° W					36	·395		0			0·02	0·52	−0·50	0·02	0·73	−0·71	0·02	Kalat.		
2	1	1	2	8	12	2	3	S 36° W	6·5	6·9			73	·995	1·5	0	0·27	−0·27	0	0·27	−0·27	0	0·42	−0·42	0	Chaman.		
1	12	4	1	5	6	2		S 86° E	2·1		1·9	+11	56	·281	5·3	3			0·96	0·48	+0·48	1·16	0·69	+0·47	0·34	Leh	Punjab.	30
	2	5	7	4	2		1	S 48° E	3·3	3·5			90	·686	4·8	5			3·00	7·69	−4·69	4·81	11·81	−7·00	1·05	Srinagar.		
2	7	3		2	3		1	N 55° E	3·6				87	·516	4·7	7			1·85			5·79			0·28	Gulmarg.		
3	3	1			5	6		N 78° W	6·0	7·1			53	·416	4·0	1			0·27	0·25	+0·02	0·86	0·79	+0·07	0·14	Skardu.		
1					3	3	1	S 86° W	6·7	6·9			50	·300	4·4	0			0·13	0·34	−0·21	1·98			0·08	Dras.		
			1					S 45° E	2·1	2·1			35	·382	3·9	0			0·03	0·94	−0·91	0·09	1·10	−1·01	0·03	Gilgit.		
1	1							N 26° E	5·6	5·5			47	·478		1			0·41			1·67			0·32	Chitral.		
8		17		1				N 67° E					44	·480	2·6	2			0·30			2·08			0·18	Killa Drosh.		
6	5	5	2		2	4	7	N 3° W	4·0				53	·482	3·0	8			4·32			5·03			1·36	Para Chinar.		
7	1		2	19	1		1	S 3° E	9·6	8·9			66	·599	3·0	3			2·15	4·81	−2·66	2·33	5·29	−2·96	1·59	Cherat.		
3			7	2	1		1	S 42° E	3·7	4·6	5·7	−19	75	·520	4·5	15	12·00	+3·00	15·69	11·25	+4·44	17·58	14·12	+3·46	2·43	Murree.		
	2	5			4	3	2	W							7·3	1			0·29	1·14	−0·85	0·64	1·41	−0·77	0·10	Poo.		
3	3	2	3	7	3	1		S 27° E	3·5		1·6	+1·9	84	·495	8·0	22	19·27	+2·73	19·20	17·55	+1·65	21·27	24·34	−3·07	2·77	Simla.		
1	3	2	6	9	3		2	S 24° E	10·3		4·6	+12·4	86	·506	2·3	21			21·75	19·42	+2·33	25·96	26·33	−0·37	3·58	Chakrata	North-Western Provinces.	15
	2	9	2			5		E					93	·554	8·1	22	21·91	+0·09	30·37	30·28	+0·09	32·61	40·57	−7·96	3·95	Mussooree.		
3		3		2	5	4	2	S 80° W	3·4	3·9	2·1	+86	87‡	·584‡	8·5	15	19·13	−4·13	9·46	13·28	−3·82	14·15	19·22	−5·07	1·96	Ranikhet.		
1		5	11	1		1	8	S 72° E	7·3	6·8			92	·521	8·9	20			9·94			11·36			1·32	Muttesar.		

‡ Mean of 29 days.

T

Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
13	Bengal	Yatung	10,480?										62·0		50·2		56·1		11·8	67·1	11th & 12th.	46·9	26th
		Darjeeling	7,409	22·923	+·046		23·037	25th	22·828	2nd	·209	61·4	66·0	−0·8	57·9	+0·5	62·0	−0·2	8·1	69·2	3 days.	56·1	7th
		Gantok	5,660	24·327			24·454	26th	24·259	1st & 2nd.	·195	68·0	76·0		47·4		61·7		28·6	77·2	3 days	45·3	31st
	Central India	Mount Abu.	3,945	25·825	+·003		25·958	25th	25·696	13th	·262	70·3	81·1	+6·5	67·2	+1·6	74·2	+4·1	13·9	87·7	2nd	64·3	17th & 22nd.
		Pachmarhi	3,528	26·239	+·019		26·374	23rd	26·081	14th	·293	71·9	79·2	+3·9	69·6	+1·8	74·5	+2·9	9·7	92·7	2nd	67·2	11th & 23rd.
	South India	Wellington	6,200	24·180	−·016		24·224	6th	24·129	27th	·095	63·7	71·3	+0·5	58·7	+0·6	64·9	+0·6	12·6	75·2	2nd	55·6	21st
		Kodai Kanal.	7,688	22·772			22·815	1st	22·720	27th	·095	56·6	62·5		52·6		57·6		9·9	68·0	5th	50·4	10th
	XIII.—Extra India.																						
	Ceylon	Trincomalee	12	29·816	0	29·754	29·860	2nd	29·770	14th	·090	81·5	90·8	−3·3	78·0	+0·9	84·4	−1·2	12·8	95·0	25th	74·0	22nd
		Colombo	40	29·876	−·003	29·842	29·930	31st	29·817	19th	·113	79·5	86·2	+1·0	76·4	−0·9	81·2	+0·1	9·8	89·0	7th	71·0	9th
	Persia	Meshed	3,104									80·0			68·3							60·8	14th
		Teheran		(a) 25·759 (b) 25·204			25·850 25·290	14th & 17th. 17th	25·670 25·110	6th 6th	·180 ·180	82·9	97·9		66·3		82·1		31·6	103·0	17th	58·7	31st
		Ispahan		24·177			24·300	16th	24·050	4th & 5th.	·250	82·0	97·5		67·4		82·5		30·1	104·0	29th	62·7	14th
		Bushire	14	29·505	+·027	29·478	29·599	26th	29·432	18th	·167	90·2	95·4	−0·1	84·2	+0·2	89·8	+0·1	11·2	100·5	25th	79·9	12th & 25th.
		Jask†		29·496	−·037		29·571	26th	29·426	4th	·145	89·8	96·6	+0·7	85·1	+0·1	90·8	+0·4	11·5	102·2	6th & 7th	80·2	15th
	Arabia	Muscat	20	29·530		29·487	29·651	26th	29·435	14th	·216	91·0	93·6		88·7		91·2		4·9	102·7	3rd & 5th	78·9	27th
		Baghdad	220	29·447	+·001	29·635	29·534	7th	29·357	10th	·177	88·7	108·2	+1·4	77·0	−1·8	92·6		31·2	114·2	30th	69·6	7th
		Bussrah		29·550			29·665	7th	29·422	10th	·243		104·6		84·6		94·7		20·0	112·9	31st	80·9	22nd
		Aden	94	29·637	+·011	29·661	29·758	31st	29·521	27th	·237	86·5	92·4	−0·2	82·9	+1·6	87·7	+0·7	9·5	97·8	3rd	77·8	25th
		Perim	201	29·557		29·687	29·643	12th	29·463	27th	·180	88·8	95·8		85·0		90·4		10·8	102·2	2nd	74·2	29th
	Afghanistan	Kabul										78·4	94·3		63·2		78·8		31·1	99·1	9th & 31st	56·4	14th & 15th.
	Central Asia	Kashgar§		25·424			25·534	16th	25·242	13th	·291	79·1	94·6		70·1		82·4		24·5	102·2	10th	61·7	22nd
	Arabian Sea Islands.	Amini Devi	13	29·866		29·807	29·924	31st	29·801	8th	·123												
		Minicoy	7	29·918		29·850	29·972	31st	29·843	19th	·129	81·9	86·2							89·1	2nd		
	Africa	Zanzibar	73	30·086	−·013	30·087	30·144	1st	30·019	20th	·125	74·7	80·7		73·0		76·8		7·7	82·6	2nd	71·6	25th

* Mean of 22 days.

† Mean of 26 days.

NOTE.—When a query is inserted against any reading or in the variation returns for any station, the da

(a) Aneroid uncorrected.

(b) Mountain barometer uncorrected.

I—*concluded.*

Stations in India, Burma, etc., in July, 1900—concluded.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variations.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st July 1900.	Normal rainfall for period, 1st June to 31st July.	Variation from normal of period, 1st June to 31st July.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Districts.
																	28			13·34	7·88	+ 5·46	24·70			1·65	Yatung .	Bengal.	13
10		3	7	7		1	2	1	S 75° E	3·2	3·0	2·6	+15	96	·526	8·8*	28	26·15	+1·85	32·79	32·45	+ 0·34	62·89	56·14	+ 6·75	3·65	Darjeeling.		
21									Calm	2·5	2·9			86	·591	7·2	22			28·38	22·34	+ 6·04	41·39	44·10	− 2·71	2·50	Gantok.		
	1	1		2	2	22	2	1	S 44° W	12·9	13·4	10·5	+28	86	·626	4·7	6	16·73	−10·73	7·31	24·42	−17·11	7·31	30·55	−23·24	3·44	Mount Abu.	Central India.	
2	2					2	15	10	N 72° W	10·8	11·1	9·5	+17	90	·712	9·0	20	23·09	− 3·09	20·71	26·69	− 5·98	22·98	36·49	−13·51	3·47	Pachmarhi.		
10	1			1	2	14	3		S 44° W	5·3		5·8	− 9	73	·435	8·2	12	6·75	+ 5·25	3·74	3·75	− 0·01	6·06	7·48	− 1·42	0·97	Wellington .	South India.	
1	1				1	1	2	25	N 50° W	17·2				84	·390	7·8	8			5·55			8·18			1·58	Kodai Kanal.		
																											XIII.—Extra India.		
						31			S 45° W	19·6				83	·902	2·5	5			1·04	2·63	− 1·59	1·04	4·68	− 3·64	0·40	Trincomalee	Ceylon.	
			1	2	2	14	11	1	S 57° W	10·1		9·0	+12	89	·903	4·3	12			6·76	5·55	+ 1·21	14·60	12·79	+ 1·81	1·56	Colombo .		
														58	·592	0	0			0	0·03	− 0·03	0·49	0·25	+ 0·24	0	Meshed .	Persia.	
	4	5		1	10	11			S 20° W	1·8	2·3			33	·369	0·4	0			0	0·51	− 0·51	0·02	0·52	− 0·50	0	Teheran.		
										2·9	3·8			42	·461	0	0			0	0·10	− 0·10	0	0·10	− 0·10	0	Ispahan.		
1	3	7	2	3	1	1	2	11	N 7° W	9·0	10·7	9·2	+16	66	·937	0·2	0			0	0	0	0	0	0	0	Bushire.		
3	1		11	5		1	2	3	S 83° E	14·2	16·5			69	·975	0·3	0			0	0·02	− 0·02	0	0·15	− 0·15	0	Jask.		
7			2	12		1	2	7	S 37° E	4·5	4·7			68	·976	2·8	0			0	0·08	− 0·08	0	0·08	− 0·08	0	Muscat .		
5	11						2	13	N 29° W	3·1	4·1			41	·559	0	0			0	0	0	0·02	0·01	+ 0·01	0	Baghdad.	Arabia.	
1	28	1	1					2	N 1° E								0			0			0·03			0	Bussrah .		
			1	1	10	18	1		S 28° W	9·58		9·4	+ 1	71	·895	4·5	0			0	0	0	0	0·01	− 0·01	0	Aden.		
			3			17	8	2	S 59° W	15·7	14·6			70	·947	2·7	2			1·42	0·02	+ 1·40	1·42	0·02	+ 1·40	0·90	Perim.		
19			1			3	5	3	W					60	·584	0	2			0·25	0·39	− 0·14	0·25	0·76	− 0·51	0·10	Kabul .		
17	3		1		3		5	1	N 82° W	15·5	13·9			35	·333	3·0	2			0·70	0·45	+ 0·25	1·60	0·98	+ 0·62	0·50	Kashgar .	Afghanistan.	
	1					7	20	3	S 86° W							7·4	19			14·19			23·88			2·51	Amini Devi .	Central Asia.	
						4	22	5	N 88° W	14·7	15·8			81	·879	6·1	17			11·71			23·99			1·74	Minicoy .	Arabian Sea Islands.	
				6	17	8			S 1° W	6·5	6·2			87	·747	6·3	7			5·10	2·12	+ 2·98	6·33	3·36	+2·97	1·92	Zanzibar .	Africa.	

that station are not utilized in calculating the provincial variations. § Mean of 30 days.

Ta

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 daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature We Mean minimum.	Mean 10 hours.	Mean 16 hours.
Burma Coast and Bay Islands.	Port Blair		29·753	29·709	·074	29·753	+·010	29·745	86·4	78·7†	7·7	90·4	75·3	15·1	84·1	84·1	81·5†	+1·2	76·0	79·9	79·5
	Rangoon		·770	·684	·086	·733	0	·711	85·2	75·6	9·6	91·5	72·4	19·1	81·3	81·4	78·6	+0·5	74·5	78·6	78·1
	Diamond Island		·765	·683	·082	·731	−·001	·707	84·1	77·8	6·3	87·6	74·0	13·6	81·4	81·8	79·9	+1·4	74·7	78·1	78·1
	Cocos Island	111	·729	·663	·066	·703	?	·746	85·7	77·2	8·5	90·4	73·1	17·3	83·1	83·3	80·4	−0·1		79·2	78·9
	Akyab		·717	·627	·090	·675	+·006	·638	85·0	73·8	11·2	89·9	69·5	20·4	82·3	82·2	78·3	−1·7	?	79·0	79·1
Bengal and Orissa.	Chittagong		·613	·524	·089	·576	+·020	·610	86·2	76·6	9·6	91·3	73·6	17·7	83·3	83·2	80·3	+0·3	75·6	79·0	79·0
	Calcutta (Alipore)		·605	·513	·092	·565	+·028	·531	89·5	79·2	10·3	97·9	75·2	21·8	85·3	87·0	84·3	+1·2	77·9	81·0	81·9
	Saugor Island		·595	·509	·086	558	+·022	·527	88·7	80·8	7·9	91·8	77·9	13·9	84·8	86·6	83·8	+1·0	78·6	81·2	81·9
	False Point		·602	·519	·083	·565	+·001	·528	87·8	79·2	8·6	93·5	75·9	17·6	85·6	85·7	82·5	+0·7	77·9	81·5	80·9
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·628	27·533	·095	27·589	+·021	·510	86·1	75·5	10·6	97·2	73·3	23·9	80·9	83·0	79·7	+1·6	73·2	74·8	75·7
	Darbhanga		29·443	29·339	·104	29·397	+·019	·514	88·4	79·1	9·3	93·1	73·5	19·6	84·3	87·0	82·7	−1·0	77·6	80·6	81·7
	Allahabad		·253	·149	·104	·203	−·004	·459	95·4	81·3	14·1	111·8	75·8	36·0	88·9	91·9	87·2	+2·5	77·0	80·7	81·0
Upper Sub-Himalayas.	Dehra Dun		27·393	27·310	·083	27·345	−·001	·493	86·0	74·3	11·7	96·8	67·6	29·2	79·9	83·5	79·2	−0·2	71·8	75·0	76·7
	Roorkee		28·679	28·582	·097	28·628	+·009	·462	91·5	79·1	12·4	107·3	72·1	35·2	85·4	89·9	84·6	0	74·8	78·4	79·5
	Meerut		·812	·708	·104	·757	−·008	·445	93·5	80·6	12·9	108·7	74·3	34·4	86·6	90·3	86·3	+0·8	76·4	79·4	80·3
	Lahore		·812	·716	·096	·763	−·008	·408	100·6	84·5	16·1	114·6	74·1	40·5	92·7	99·1	91·8	+3·5	76·5	80·1	81·2
	Lahore (New shed)								102·9	83·7	19·2	116·9	72·9	44·0	93·7	100·1	92·2		76·1	80·1	81·1
	Ludhiana		·713	·618	·095	·664	−·015	·421	96·5	82·4	14·2	115·2	74·1	41·1	89·2	94·0	88·4	+1·7	76·7	77·9	79·5
Upper Valley and N.-W. Rajputana.	Peshawar		·419	·303	·116	·360	−·001	·406	105·8	80·7	25·1	118·0	72·4	45·6	95·6	102·1	92·0	+2·4	72·3	78·5	79·4
	Jacobabad		29·286	29·160	·126	29·222	−·012	·356	112·3	85·8	26·5	123·0	80·9	42·1	98·9	111·1	98·3	+3·6	78·0	82·9	85·6
	Kurrachee		·554	·475	·079	·519	+·015	·499	93·5	83·1	10·4	97·4	80·4	17·0	88·9	89·7	86·9	+2·9	78·0	81·3	81·8
N. Rajputana, Central India, and Gujarat.	Jaipur		28·180	28·079	·101	28·130	+·013	·479	98·0	80·9	17·1	112·2	74·4	37·8	89·1	95·4	88·7	+4·8	74·9	77·9	78·3
	Udaipur		27·723	27·638	·085	27·681		·512	92·9	77·6	15·3	102·1	72·6	29·5	85·2	89·6	84·4		72·9	75·8	76·8
	Deesa		29·160	29·041	·119	29·102	+·006	·509	99·0	80·9	18·1	106·9	75·2	31·7	89·0	97·5	89·6	+5·8	75·3	77·1	78·4
	Jamnagar		·571	·491	·080	·531		·538	94·1	80·3	13·8	99·3	75·2	24·1	90·0	90·3	86·2		?	78·4	74·8
Deccan.	Belgaum		27·259	27·191	·068	27·225	−·009	·682	76·9	67·8	9·1	82·7	65·6	17·1	72·9	74·0	71·4	+1·3	67·0	70·4	70·5
	Sholapur		28·157§	28·055§	·102	28·115	−·003	·628§	90·7§	73·3†	17·4	96·4	70·0	26·4	83·0§	85·4§	79·8‖	+1·6	70·5‖	72·7§	73·1§
	Poona		27·901	27·835	·066	27·870	−·003	·636	84·7	71·8	12·9	93·4	68·3	25·1	79·5	80·6	77·0	+1·9	70·8	73·0	72·9
	Akola		28·745	28·639	·106	28·692	+·003	·562	91·4	76·1	15·3	104·5	71·5	33·0	84·9	88·0	82·9	+2·4	73·8	76·2	76·5
	Buldana	2,132	27·573	27·480	·093	27·526	−·001	·567	86·4	72·4	14·0	96·2	67·9	28·3	79·7	83·5	78·7	+2·4	69·4	72·6	72·9
	Khandwa		28·614	28·499	·115	28·557	−·003	·541	90·9	77·5	13·4	104·2	72·1	32·1	83·7	87·8	83·0	+3·1	73·4	76·1	76·9
	Nagpur		·623	·527	·096	·575	+·014	·544	89·4	75·8	13·6	104·1	73·1	31·0	82·0	84·5	81·4	+1·2	73·8	76·7	76·7
	Do. (Sanitary Commr.'s Office).		·638	·527	·111	·583		·540	90·4	75·9	14·5	104·0	72·8	31·2	83·2	86·0	82·1		73·7	77·2	77·4
	Hyderabad (Deccan).		·044	27·945	·099	·000	0	·614	86·5	73·5	13·0	93·2	69·8	23·4	79·9	84·2	79·4	−0·1	71·0	73·5	74·7
West Coast.	Bombay		29·703	29·634	·069	29·667	−·002	·643	86·5	79·3	7·2	89·2	74·2	15·0	83·5	83·7	82·7	+1·8	76·1	79·6	79·4
	Karwar		·801	·736	·065	·766	+·002	·742	82·9	76·2	6·7	85·9	72·5	13·4	80·9	80·8	79·5	+0·8	73·7	76·5	76·6

† Mean of 29 days. § Mean of 28 days. ‖ Mean of 27 days.

II.

66 Stations in India, Burma, etc., in July, 1900.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%						
·873†	·966	·953	·931	+·033	89†	83	81	84	− 1	7·6	8·3	8·0	+0·4					6	4	27	24	1	S. 56° W.	S. 47° W.	77	87	294	268			Port Blair	Burma Coast and Bay Islands.
·837	·945	·923	·902	+·016	94	89	86	90	0	8·2	8·3	8·3	−0·7					3	14	26	13	1	S. 42° W.	S. 24° W.	79	74	115‡	129			Rangoon	
·817	·924	·917	·886	+·009	86	86	84	85	− 2	8·8	8·9	8·9	+0·7	1			2	3	13	31	6	3	S. 37° W.	S. 42° W.	71	80	261*	240			Diamond Island,**	
	·948	·931				84	82			8·0	7·8	7·9	−0·5		3			2	26	30	1		S. 25° W.	S. 34° W.	81	91	?	?	21·07	4·68	Cocos Island	
?	·950	·957	?	?	?	86	87	?	?	8·7	8·7	8·7	0				3	14	31	10	4		S. 2° E.	S. 1° E.	77	67	56	98			Akyab	
·875	·933	·934	·914	0	95	82	82	86	− 1	8·7	8·9	8·8	+0·9			1	4	21	16	15	2	3	S. 7° E.	S. 30° E.	63	66	196*	165			Chittagong	Bengal and Orissa.
·940	1·001	1·012	·984	+·022	94	82	79	85	− 2	8·2	8·3	8·3	0			2	8	19	20	12		1	S. 19° E.	S. 8° E.	68	63	122	122			Calcutta (Alipore),	
·952	·017	1·027	·999	+·002	90	85	81	85	− 1	8·5	7·8	8·2	0		2	2	5	10	29	14			S. 5° E.	S. 21° W.	69	60	374	357			Saugor Island.	
·948	1·022	·995	·988	+·050	94	83	81	86	+ 1	9·0	8·8	8·9	+0·7			4	4	10	12	16	15	1	S. 26° W.	S. 53° W.	48	63	235*	277			False Point	
·788	·787	·797	·791	−·020	90	75	72	79	− 6	10·0	10·0	10·0	+0·7	5	5	3	13	2	9	13	8	4	S. 20° W.	S. 9° E.	16	14	179*	210			Hazaribagh	Gangetic Plain and Chota Nagpur.
·928	·999	1·018	·982	+·014	93	85	79	86	+ 3	7·4	6·1	6·8	+0·5	11	1	3	23	20		2	2		S. 71° E.	S. 77° E.	61	56	80	121			Darbhanga	
·873	·941	·912	·908	−·043	83	71	64	73	− 8	8·4	7·3‡	7·9	+0·1	2	3	8	16	4	2	5	10	12	N. 16° E.	N. 71° E.	15	7	209*	151			Allahabad	
·750	·813	·840	·801	−·002	89	80	74	81	− 3	7·6	5·8	6·7	−1·0	10	14		4	12	10	5	1	6	S. 44° E.	S. 12° W.	8	13	29	26			Dehra Dun	Upper Sub-Himalayas.
·811	·878	·870	·853	−·019	82	73	64	73	− 3	††7·3	††·63	6·8	+0·4	17		1	2	33	6		2	1	S. 40° E.	S. 37° E.	58	33	94	70			Roorkee	
·855	·915	·905	·892	+·005	83	73	65	74	0	8·4	7·8	8·1	+1·4	29		1	9	16		1	5	1	S. 54° E.	S. 69° E.	29	21	32*	57			Meerut	
·808	·863	·825	·832	−·022	69	57	47	58	− 3	2·7	1·8	2·3	−2·0	7	3	5	13	18	7	3	5	1	S. 56° E.	S. 77° E.	42	30	104	80			Lahore	
·803	·848	·805	·819		71	55	44	57																	¶						Lahore (New shed).	
·844	·812	·820	·825	−·042	78	61	54	64	− 5	4·9	4·5	4·7	−1·3	8	8	3	1	20	16		5	1	S. 31° E.	S. 40° E.	37	23	93*	52			Ludhiana	
·700	·762	·721	·728	+·001	67	47	36	50	− 3	1·5	3·5	2·5	−0·4	15	20	10	3			6	2	6	N. 1° W.	N. 49° E.	43	47	65	107			Peshawar	Indus Valley and N.-W. Rajputana.
·855	·908	·883	·882	+·066	69	49	34	51	− 1	0·6	0·5	0·6	−1·7	17				36	8	1			S. 36° E.	S. 44° E.	68	59	119*	133			Jacobabad	
·890	·966	·980	·945	+·016	78	71	70	73	− 5	4·1	3·5	3·8	−3·1						1	27	34		S. 69° W.	S. 68° W.	92	85	449*	415			Kurrachee	
·792	·815	·757	·788	−·050	76	61	49	62	−12	4·6	5·3	5·0	−2·4	1	4	2	1	2	1	21	21	9	S. 82° W.	N. 72° W.	63	28	124	133			Jaipur	E. Rajputana, Central India, and Gujarat.
·718	·777	·765	·763		79	64	57	67		5·6	5·1	5·4		10	1		1	2	3	19	23	3	S. 68° W.		63		78				Udaipur	
·801	·770	·715	·762	−·066	76	57	41	58	−16	7·0	5·3	6·2	−1·9		3	1		1	3	27	26	1	S. 68° W.	S. 42° W.	78	73	408	351			Deesa	
?	·816	·871	?		?	58	62	?		5·1	4·0	4·6		7	1		1	1	4	23	18	7	S. 68° W.		65		592*				Jamnagar	
·654	·715	·702	·690	+·021	96	88	84	89	− 1	9·4	8·6	9·0	−0·1						3	14	31	10	S. 83° W.	S. 68° W.	83	87	527§	647			Belgaum	Deccan.
·712‖	·676§	·663§	·684	+·020	86‖	60§	56§	67	− 1	8·5§	9·5§	9·0	+0·5	1	1			1	2	29	18	4	S. 65° W.	S. 76° W.	80	83	247*	336			Sholapur	
·712	·732	·716	·730	+·032	95	73	69	79	− 1	8·2	8·9	8·6	−0·3			3		1		16	28	4	S. 82° W.	S. 81° W.	80	90	453*	386			Poona	
·805	·788	·758	·783	+·015	90	67	60	72	− 3	7·9	8·2	8·1	−0·4	2	5	2		3	1	5	26	18	N. 83° W.	N. 74° W.	63	73	¶ 343*	210			Akola	
·681	·713	·678	·691	−·018	86	71	62	73	− 6	9·2	9·1	9·2	+1·1		3		1		1	5	37	15	N. 80° W.	N. 79° W.	82	74	276*	219	8·43	2·17	Buldana	
·781	·801	·785	·789	+·008	83	71	63	72	− 5	7·3	7·8	7·6	−0·3	2	1	1		3	4	4	25	22	N. 78° W.	N. 85° W.	66	82	250	217			Khandwa	
·808	·855	·823	·829	+·016	91	79	71	80	0	8·4	9·0	8·7	0	12	1				4	13	19	13	S. 85° W.	S. 88° W.	60	69	219	243			Nagpur	
·806	·863	·833	·834		90	76	69	78		7·9	8·4	8·2		7	1	2		10	1	28	4	9	S. 48° W.		47		67*				Do. (Sanitary Commr.'s Office).	
·730	·748	·745	·741	+·028	88	73	65	75	+ 2	7·9	7·9	7·9	+0·5	13							34	10	N. 80° W.	N. 86° W.	76	90	207*	249			Hyderabad (Deccan).	
·862	·964	·954	·927	+·020	86	84	82	84	− 3	8·3	9·3	8·8	−0·3				1	4	2	10	42	3	S. 78° W.	S. 74° W.	77	85	360	450			Bombay	West Coast.
·798	·855	·861	·838	+·006	88	81	82	84	− 2	8·6	9·1	8·9	+1·1							25	26	11	S. 79° W.	S. 73° W.	85	75	181	123			Karwar	

¶ Mean of 19 days. ** Wind variable 2. †† Mean of 25 days. ‡ Mean of 30 days. * Corrected.

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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 daily pressure.	Variation from normal.	Mean reduced to S.L. 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 daily.	Variation from normal.	Temperature, Wet- Mean minimum.	Mean 10 hours.	Mean 16 hours.
South India.	Periyakulam		28·887	28·783	·104	28·835			92·7	72·7	20·0	99·3	69·9	29·4	86·3	86·5	81·1		69·0	73·3	73·1
	Salem		·900	·787	·113	·856	−·021	29·721	93·4	73·9	19·5	99·6	70·8	28·8	84·5	88·3	81·6	+0·9	71·5	75·3	76·2
	Chitaldroog		27·417	27·336	081	27·386	−·016	·698	83·3	69·3	14·0	89·0	67·2	21·8	76·8	79·0	75·2	+1·7	67·1	70·4	71·1
	Bangalore		26·857	26·766	·091	26·823	−·011	·716	82·6	66·8	15·8	86·5	65·1	21·4	75·1	78·2	73·7	+1·4	65·6	69·0	69·9
	Hassan		·803	·739	·064	·782	−·012	·760	78·2	66·1	12·1	86·7	64·9	21·8	73·9	73·7	71·0	+1·5	65·0	69·2	68·7
	Mysore		27·362	27·284	·078	27·323	−·012	·746	83·1	67·7	15·4	91·1	66·1	25·0	77·2	78·0	74·1	+0·8	66·8	69·8	70·2
	Madras		29·755	29·644	·119	29·714	−·005	·660	95·5	78·9	16·6	102·1	74·5	27·6	89·0	50·4	85·3	+0·1		77·2	77·8
	Bellary		28·310	28·208	·102	28·268	−·014	·665	91·2	75·0	16·2	98·2	68·0	30·2	83·8	87·3	81·2	+0·7	67·9	69·9	71·0
	Waltair		29·431	29·337	·094	29·384		·547	90·1	79·4	10·7	95·8	74·3	21·5	85·9	86·5	83·8		73·9	77·7	78·3
Hill Station, Baluchistan.	Quetta		24·448	24·367	·081	24·406	+·020		94·9	65·7	29·2	100·2	55·4	44·8	86·7	91·9	79·6	+1·8	57·0	65·7	65·0
Hill Stations, Northern India.	Leh		19·663	19·572	·091	19·627	+·031		75·8	49·9	25·9	81·7	43·9	37·8	66·4	72·6	60·9	−0·7	44·2	52·9	55·3
	Srinagar		24·690	24·600	·090	24·643	+·012		86·0	64·8	21·2	91·3	59·2	32·1	75·3	84·3	75·0	+0·8	63·2	72·8	78·6
	Kailang	10,087	20·863	20·788	·075	20·830	†		73·0	50·4	22·6	79·6	44·4	35·2	64·2	68·7	60·2	−0·9	48·8	56·3	56·0
	Simla (Ridge)		23·011	22·966	·045	22·987	+·021		70·1	60·5	9·6	82·6	56·1	26·5	65·9	67·9	65·0	+0·1	58·1‡	62·3	63·5
	Chakrata		·195	23·136	·059	23·164	+·036		69·3	60·0	9·3	76·2	55·7	20·5	65·7	66·4	64·1	−0·5	58·6†	62·0	62·8
	Ranikhet		·973	·906	·067	·932	+·010		75·2	64·1	11·1	83·0	60·1	22·9	69·0	71·8	69·0	+0·8	62·5	65·6	66·8
	Muktesar		22·752	22·698	·054	22·726			70·7	58·9	11·8	80·7	55·4	25·3	64·2	66·7	63·8		58·1	61·9	62·7
	Katmandu	4,388	25·370	25·292	·078	25·333	†		83·0	68·7	14·3	86·4	65·7	20·7	76·7	78·5	74·7	0·8	67·3	71·3	72·3
	Darjeeling		22·935	22·883	·052	22·911	+·043		65·9	57·9	8·0	69·1	56·1	13·0	62·9	64·4	61·5	+0·4	57·7	61·8	63·2
Hill Stations, Central India.	Mount Abu		25·840	25·780	·060	25·812	+·004		80·8	67·2	13·6	87·7	64·3	23·4	73·4	78·7	73·5	+4·1	64·9	68·4	69·8
	Pachmarhi		26·248	26·175	·073	26·212	+·014		78·7	69·6	9·1	92·7	67·0	25·7	73·6	76·5	74·1	+2·3	68·7	70·9	72·2
	Chikalda	3,642	·141	·067	·074	·104	+·004		77·0	67·8	9·2	89·2	64·9	24·3	72·2	75·8	72·6	+2·6	66·5	68·9§	70·0
Hill Stations, S. India.	Wellington		24·194	24·137	·057	24·166	−·003		71·1	58·7	12·4	75·2	55·7	19·5	67·3	66·0	63·7	+0·7	55·4	60·5	60·0
	Kodaikanal		22·790	22·732	·058	22·756			62·4	52·6	9·8	68·0	50·4	17·6	59·5	57·3	56·2		50·0	55·9	55·2
Extra India.	Aden		29·651	29·528	·123	29·587	+·027	·610	91·9	82·9	9·0	97·9	77·7	20·2	88·9	90·1	87·2	+0·9	74·5	79·5	77·5
	Perim		·560	·461	·099	·508	+·039	·638	95·1	85·0	10·1	101·9	74·2	27·7	91·3	92·9	89·5	−0·5	77·1	81·0	80·7
	Minicoy		·921	·860	·052	·902		·834	85·9			89·1			84·0	82·9				78·5	77·7
	Zanzibar		30·113‡	30·016	·097	30·065	−·005	30·065‡	80·7	73·0	7·7	82·6	71·6	11·0	76·1‡	79·3	76·5	+0·3	69·4	72·6	72·3
	Port Victoria (Seychelles)	15	·028	29·952	·076	29·990	−·003	29·929	81·0	74·1	6·9	82·9	71·8	11·1	79·8	80·6	77·5	−0·2	70·8	74·0	73·8
	Mauritius (Pamplemousses)	181				30·049	+·024	30·181				81·6	52·7	28·9			66·9	−1·1			

† Mean of 29 days. ‡ Mean of 30 days. § Mean of 26 days.

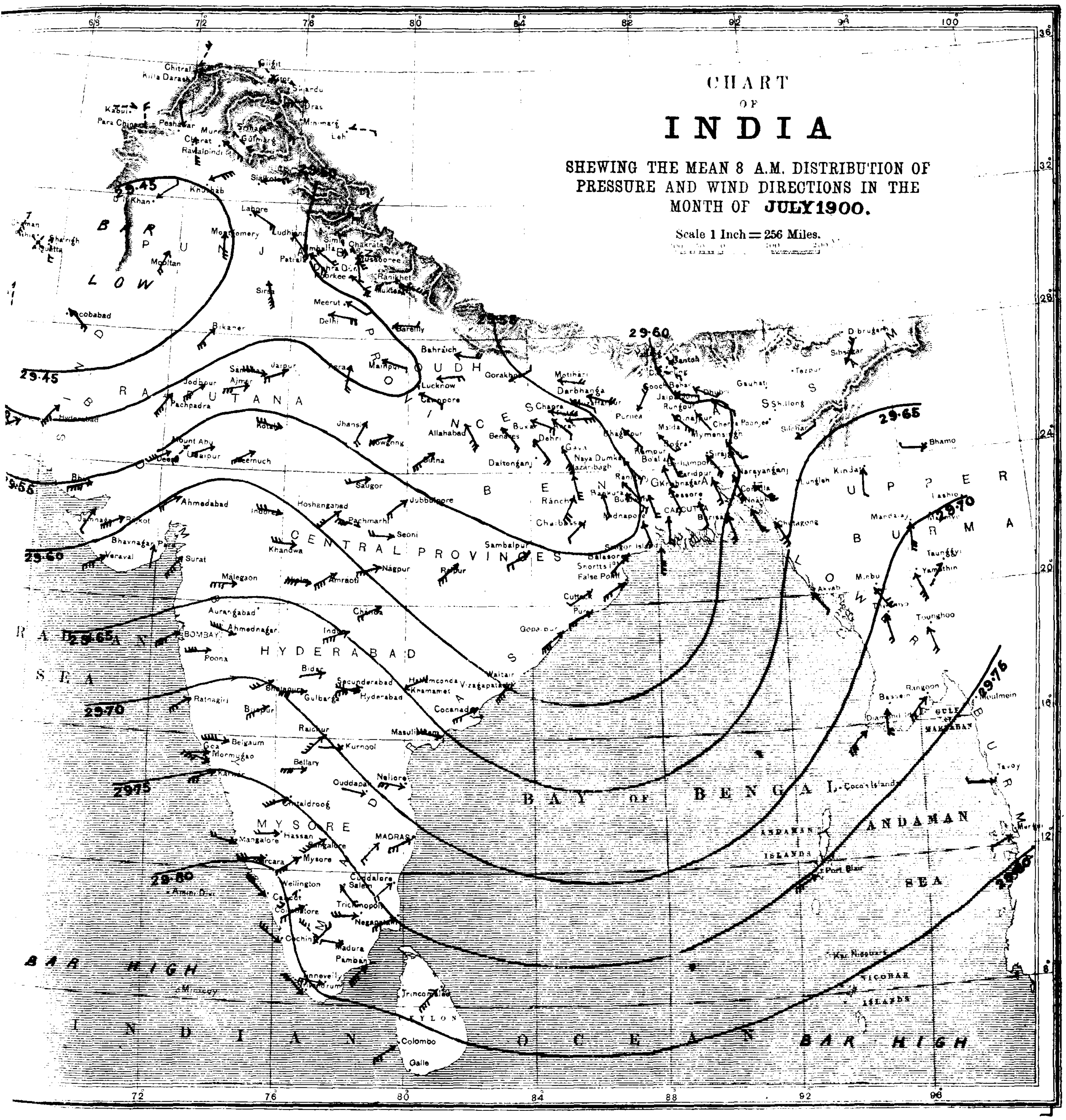
II—*concluded.*

66 Stations in India, Burma, etc., in July, 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.											Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
														Number of winds from																		
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
																									%	%						
·662	·647	·637	·649		82	52	51	62		6·0	8·0	7·0		9	4	1	5	5	2	22	5	7	S. 55° W		32		102*				Periyakulam¶	South India.
·737	·763	·752	·751	+·005	89	64	57	70	− 1	6·5	8·2	7·4	+1·0	3		1	1	38	13	4		2	S. 31° E.	S. 55° W.	76	78	125*	108			Salem	
·639	·666	·663	·656	+·033	89	72	67	76	0	8·9	9·5	9·2	+0·1						2	24	29	7	S. 74° W.	S. 78° W.	85	87	278*	291			Chitaldroog	
·616	·643	·636	·632	+·023	93	74	65	78	+ 1	8·7	8·3	8·5	+1·7	1			1		1	33	24	2	S. 64° W.	S. 73° W.	85	91	268*	217			Bangalore	
·605	·660	·644	·637	+·048	94	79	78	84	+ 3	9·3	9·4	9·4	+0·2							16	37	9	S. 85° W.	S. 89° W.	89	90	114*	125			Hassan	
·648	·639	·646	·644	+·036	95	68	68	77	+ 2	9·7	9·8	9·8	+0·9		1				1	23	35	2	S. 75° W.	S. 77° W.	89	91	33[illegible]*	368			Mysore	
	·774	·802	·814	+·021		57	58	67	0	7·7	8·8	8·3	+1·1			1	8	6	11	30	6	6	S. 67° W.	S. 48° W.	61	67	171	191			Madras	
·595	·560	·557	·571	−·087	69	48	43	53	−10	9·1	9·5	9·3	+1·0	7			1			10	40	4	S. 85° W.	S. 87° W.	79	88	296*	282			Bellary	
·765	·840	·863	·823		76	68	69	71		7·8	7·7	7·8				1	5	3		53			S. 37° W.		79		155				Waltair	
·389	·418	·339	·382	−·057	58	33	22	38	− 9	1·1	3·3	2·2	+0·6	36	3		1	2	2	2	9	7	N. 77° W.	S. 85° W.	21	30	41*	91			Quetta	Hill Station, Baluchistan.
·216	·288	·292	·275	+·019	68	45	37	50	+ 5	4·5	5·5	5·0	−0·1		1	3	3	1	10	20	19	5	S. 59° W.	S. 73° W.	58	38	52	47			Leh	Hill Stations, Northern India.
·568	·789	·894	·750	+·092	92	89	78	86	+ 8	3·8	3·0	3·4	−0·6	16	7	3	2	8	7	3	7	9	N. 82° W.	N. 20° W.	10	11	87*	93			Srinagar	
·337	·391	·341	·356	−·002	90	65	50	68	+ 2	6·2	6·7	6·5	+0·1		3			1	8	18	13	19	S. 83° W.	S. 81° W.	63	65	43	49	2·46	0·88	Kailang	
·160‡	·527	·541	·509	−·024	87‡	84	81	84	− 4	8·3	8·7	8·5	−0·3	10	13	7	1		15	5	2	2	N. 60° W.	N. 5° E.	2	26	93‖	86			Simla (Ridge)	
·178†	·521	·537	·512	−·034	93†	83	84	87	− 4	4·5	4·0	4·3	−4·1	11	6	3	2	5	23	10		2	S. 2° W.	S. 75° W.	37	45	241	131			Chakrata	
·551	·596	·607	·585	+·004	92	84	79	85	− 1	8·9	7·6	8·3	−0·2	13	8	5	2		4	11	14	10	N. 85° W.	S. 62° W.	37	25	90*	59			Ranikhet	
·479	·533	·531	·514		95	89	82	89		8·9	8·6	8·8		10	5	2	4	18	4	5	2	12	S. 36° E.		41		162*				Muktesar	
·657	·709	·725	·697	+·009	93	80	75	83	+ 3	7·5	7·8	7·7	+0·9			3	29	1		8	18	3	S. 70° E.	S. 67° W.	11	10	20	21	17·73	2·96	Katmandu	
·476	·542	·572	·530	+·011	98	94	93	95	0	7·8‖	7·9‖	7·9	−1·0	5	1	7	9	20	4	11	2	3	S. 42° E.	S. 75° E.	39	32	71*	91			Darjeeling	
·591	·640	·626	·619	−·017	89	78	65	77	−12	8·1	6·1	7·1	−1·5		3	2	3	1	9	40	3	1	S. 39° W.	S. 54° W.	68	67	321*	278			Mount Abu	Hill Stations, C. India.
·690	·727	·741	·719	+·048	95	88	82	88	0	9·1	8·7	8·9	+0·1	8	2					7	20	25	N. 71° W.	N. 87° W.	72	76	259*	252			Pachmarhi	
·637	·665§	·666‖	·654	−·001	94	84§	76‖	84	− 8	8·1	8·2	8·2	−0·8	31	19							12	N. 17° W.	N. 55° W.	46	68	214*	239	21·83	4·21	Chikalda	
·409	·460	·460	·443	+·019	82	69	72	74	0	8·6	9·5	9·1	+1·1	4	1	2		7	1	42	4	1	S. 41° W.	S. 79° W.	69	66	124	124			Wellington	Hill Stations, S. India.
·336	·413	·416	·388		85	81	88	85		8·1	8·6	8·4		4	1			1	1	2	5	18	N. 51° W.		80		411				Kodaikanal	
·712	·881	·778	·800	−·003	66	65	55	62	− 3	3·6	3·9	3·8	+1·7	1		1	1	10	25	24			S. 10° W.	S. 1° E.	79	73	227‡	261			Aden	Extra India.
·829	·931	·893	·884	+·097	69	64	59	64	+ 8	1·1	0·2	0·7	−1·8		3	1	2	3	3	11	16	23	N. 78° W.	N. 56° W.	58	60	351*	386			Perim	
	·902	·887				78	79			5·1	6·8	6·0								8	48	6	S. 89° W.		93		393*				Minicoy	
·672	·756‡	·708	·713	+·023	83	84‡	70	79	+ 1	6·1‡	5·4	5·8	+1·2		2	2		21	24	12			S. 10° E.	S. 5° E.	73	83	147*	207			Zanzibar	
·715	·768	·747	·743	+·038	84	75	71	77	+ 3	4·8	5·1	5·0	−0·6				2	55	3	2			S. 42° E.	S. 29° E.	95	86	286	287	2·30	0·60	Port Victoria (Seychelles).	
			·497					75	+ 1																		262	286	2·29	0·62	Mauritius (Pamplemouses)	

‖ Mean of 25 days. ¶ Wind variable 2. * Corrected.

G. I. C. P. O.—No. 87 Meteor.—17-11-1900.—285.



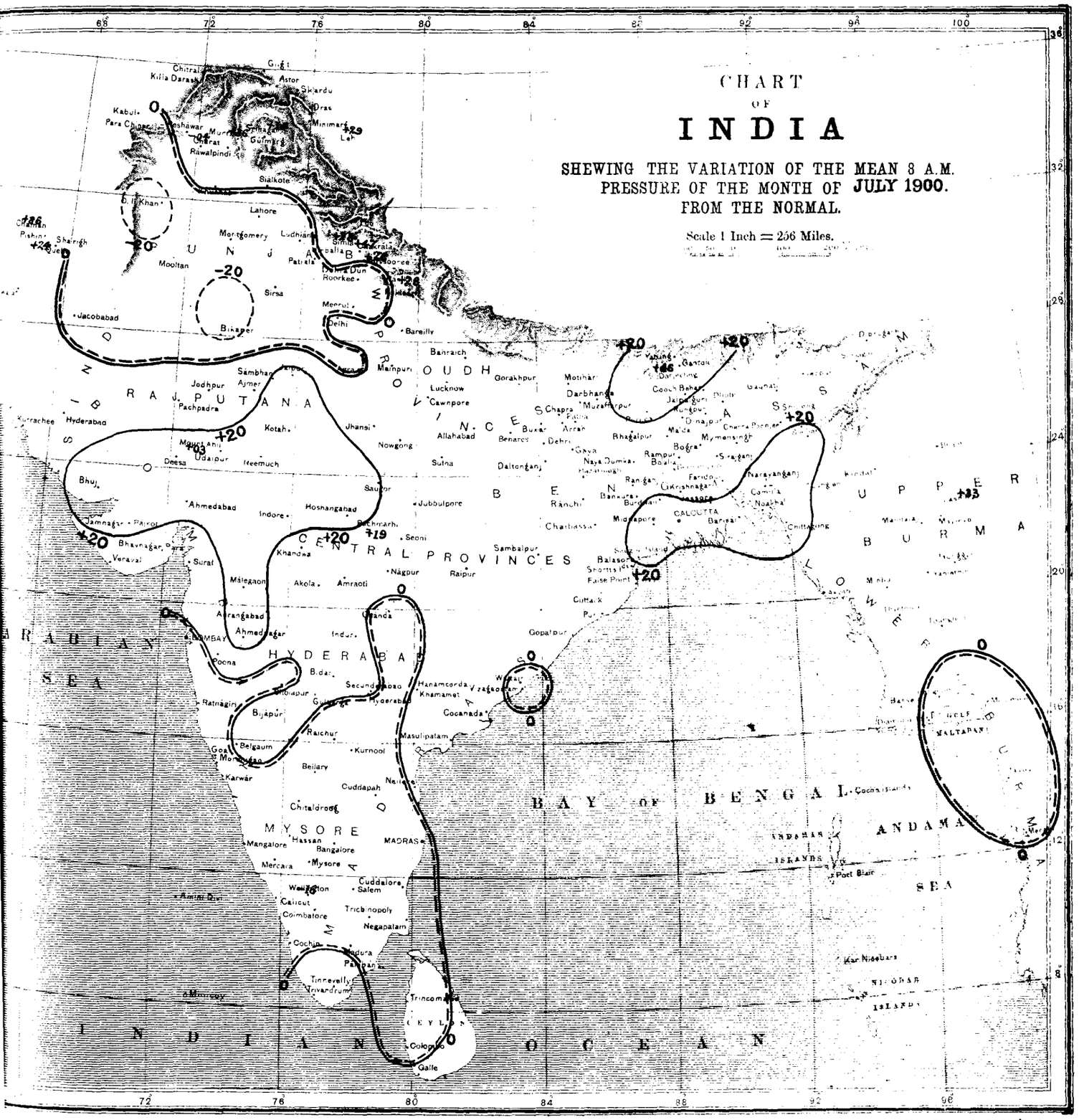
LITHO. BY J. N. MUNDLE.

Explanation.

... lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric ... 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 ...servations, and by comparison with the ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal ... by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India and published by the Meteorological Depart- ... 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 ... actual.

... 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 ...'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 ...cated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during ...onth 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	[illegible]



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 close 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.

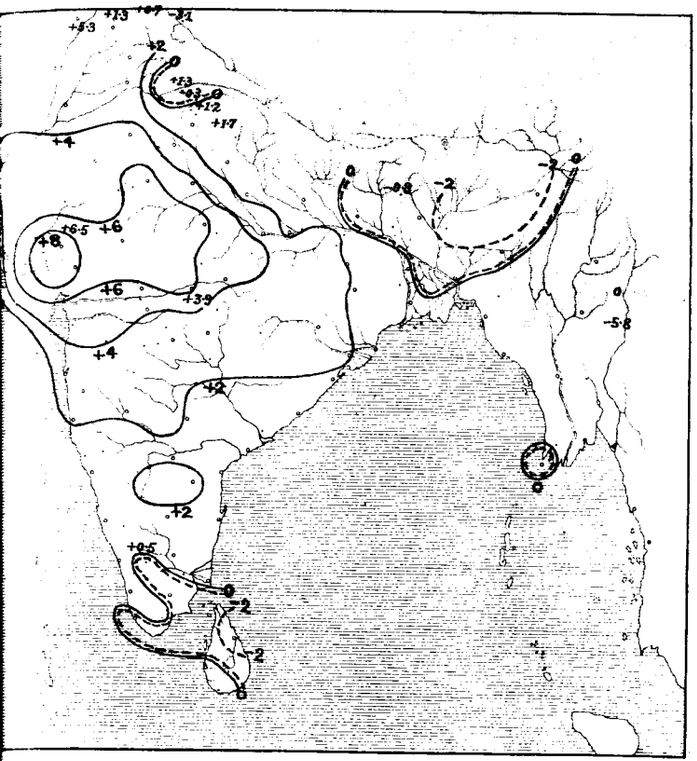
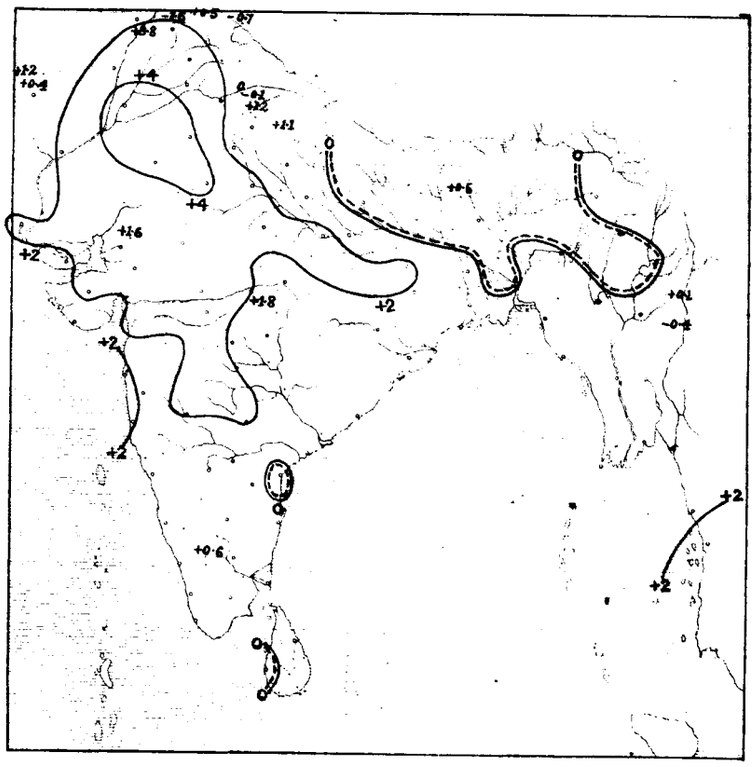


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

ntinuous lines indicate that the mean maximum of month was in ess by amounts indicated by the attached numbers. Broken or dotted es that it was in defect by the amounts indicated by the attached mbers. Double lines are the lines of no variation, the broken line facing e 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 the 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.

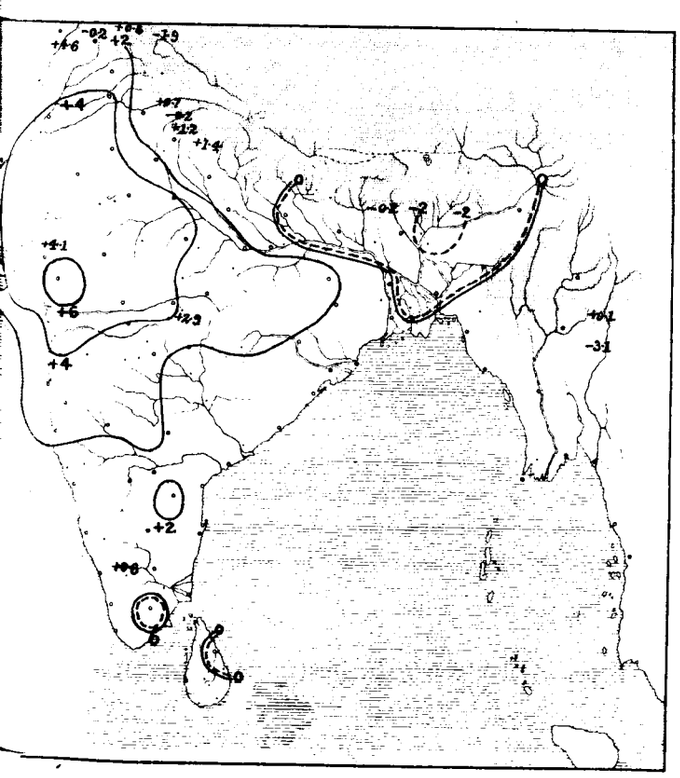
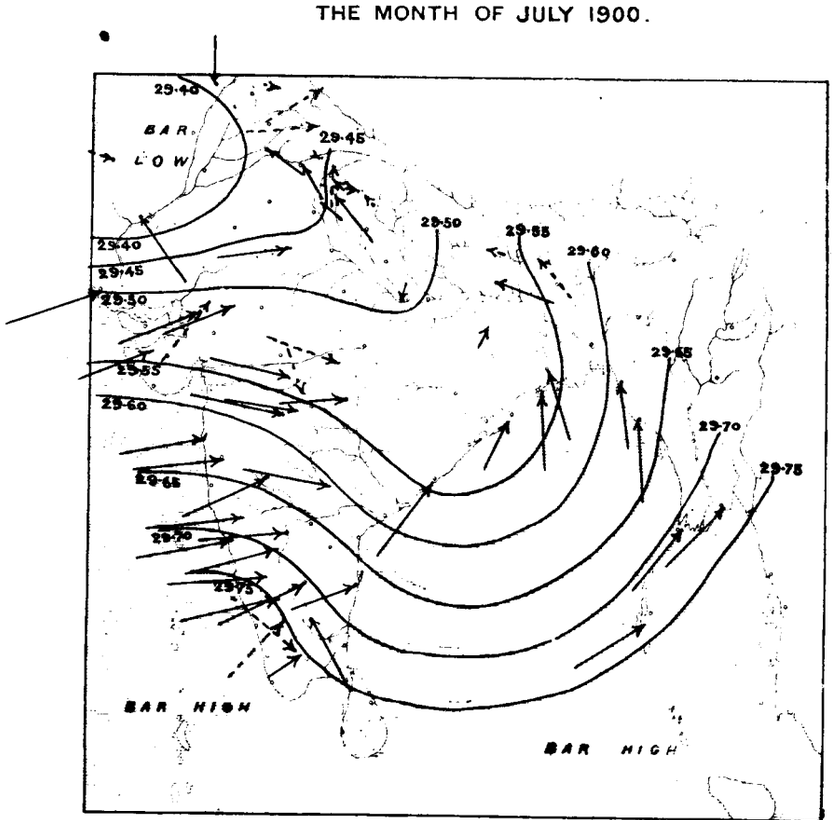


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF JULY 1900.



LITHO. BY J.N. MUNDLE.

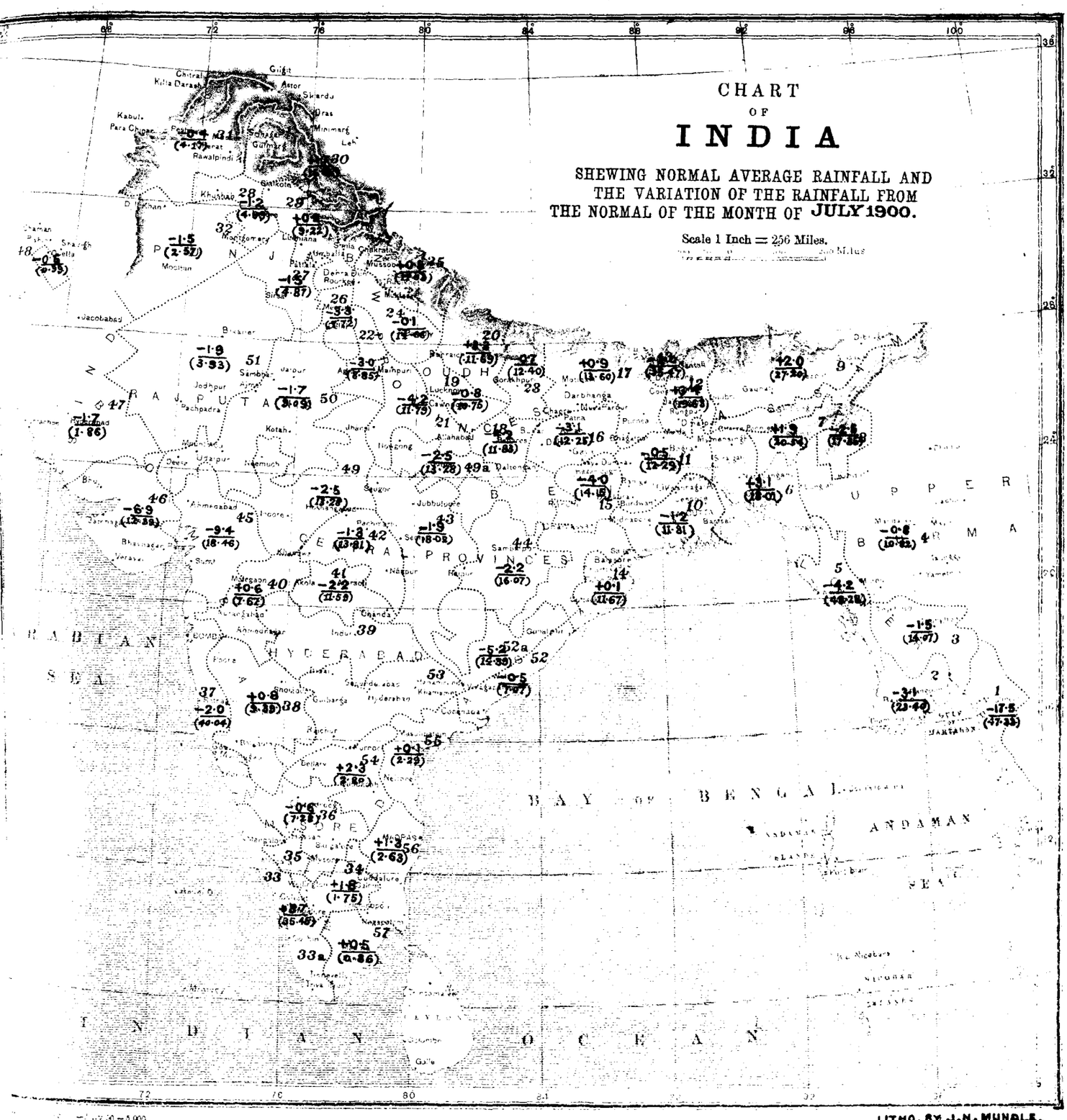
Explanation.

nuous lines indicate that the mean daily temperature of month n excess by amounts indicated by the attached numbers. Broken otted lines that it was in defect by the amounts indicated by the ed numbers. Double lines are the lines of no variation, the broken cing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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

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 [illegible] in the preparation of this Chart are the rainfall returns of all the observatories in India (182 in number), except those at the [illegible]ions over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of [illegible] from those 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 [illegible] with the exception of Upper Burma, for which rainfall data have not been [illegible] for a sufficient number of years to furnish [illegible] useful means. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, [illegible] crops similar in character; and the means (both actual and normal) for the month have been calculated, and the numbers [illegible] the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean [illegible] 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 [illegible] indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller [illegible] within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained [illegible] in the following list to the number given near the right hand boundary of each district in small slanting red figures.

[illegible]		17	North Bihar	33. Malabar	48 Baluchistan Hills
[illegible] Burma Deltaic		18	North Western Provinces, East	33a Travancore	49 Central India, East
[illegible]		19	South Oudh	34. Madras, South West	50 Do. do.
[illegible] do.		20	North do.	35. Coorg	50 Rajputana East, Central India West
[illegible]		21	North Western Provinces, Central	36. Mysore	51 West Rajputana
[illegible]		22	Do. do. West	37 Konkan	52 Madras, East Coast, North
[illegible] Surma		23	Do. do. East Submontane	38. Bombay Deccan	52(a) Do. do. do. (a)
Do. Hills		24	Do. do. West do.	39 Hyderabad, North	53 Hyderabad, South
Do. Brahmaputra		25	Do. do. Hills	40 Khandesh	54 Madras, Central
Deltaic Bengal		26.	South East Punjab	41. Berar	55. Madras, East Coast, Central
Central do.		27.	South do.	42 Central Provinces, West	56 Do. East Coast, South
North do.		28	Central do.	43 Do. Central	57. Madras, South
Bengal Hills		29.	Punjab, Submontane	44. Do. East	
Orissa		30.	Do. Hills	45 Gujarat	
Chota Nagpur		31.	North Punjab	46 Kathiawar	
South Bihar		32.	West do.	47. Sind	

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, AUGUST, 1900.

INTRODUCTION.

THIS review of the weather in India during the month of August 1900 is based on observations taken daily at 8 A.M. at 219 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 weekly rainfall telegrams received during the month from District Officers throughout India, 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 August 1900.

The south-west monsoon currents were fully and finally established over India during the last week of the previous month of July. They were unusually steady and strong during the greater part of August, though there was a partial break in the rains over Western and North-Western India during the last ten days of the month. General rain fell daily during the first three weeks of the month, and over part of Northern India throughout the whole month. The mean strength of the Arabian Sea current, measured by the average intensity of the winds at some western stations, was 25 per cent. above the normal, and of the Bay of Bengal current, as judged by the stations in the Bay Islands and on the coasts of the Bay, was, on the mean of the month, 30 per cent. in excess of the normal velocity. One of the most noteworthy features of the month was the succession of cyclonic storms which passed from the Bay into Upper India and gave heavy to very heavy rain over the greater part of the country.

At the commencement of the month one of these cyclonic storms lay over the north-west of the Bay and the Orissa coast and was giving heavy rain to the stations in South-West Bengal. At the same time the winds were blowing strongly on the Bombay and Kathiawar coasts and moderate to heavy rain was falling over Bombay, the Central Provinces, Gujarat, Rajputana, the west of Central India and the Punjab. Accompanying this rainfall were low temperatures over a large part of the country. The following gives comparative temperature data for

the whole country for the 24 hours preceding 8 A.M. of the 1st in illustration:—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st August.	Mean minimum temperature, 1st August.	Mean daily temperature, 1st August.
Burma	—2·6	—0·3	—1·5
Assam	+4·6	—0·9	+1·9
Bengal	+0·5	+0·8	+0·7
Orissa	—1·7	—1·0	—1·4
Bihar	+1·3	+0·1	+0·7
Chota Nagpur	—1·3	+0·2	—0·6
North-Western Provinces and Oudh.	+1·6	+1·1	+1·4
Punjab	—4·2	—1·8	—3·0
Sind	+5·2	+1·6	+3·4
Rajputana	+2·4	+1·9	+2·2
Gujarat	—2·8	+0·1	—1·4
Central India	+1·5	+2·7	+2·1
Central Provinces	+1·5	+0·7	+1·1
Berar	—1·7	—0·7	—1·2
West Coast	—0·3	+1·3	+0·5
Bombay Deccan	—5·6	—0·1	—2·9
Mysore	—2·1	—0·3	—1·2
Madras Coast	—3·8	—3·1	—3·5
Madras Deccan	—12·0	—1·8	—6·9
South India	—1·2	+1·5	+0·2

The storm from the Bay advanced into the North-Western Provinces reaching the west of those provinces on the 4th where it remained nearly stationary until the 8th when it finally disappeared. General rain fell over Western, Central and Northern India during its existence and the following large amounts were registered during these eight days:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Chanda	Brahmapuri	1st August	6·39
Gurdaspur	Tibri	" "	6·25
Kangra	Dharmsala	" "	6·00
Patiala State	Gujran	" "	5·70
Ranchi	Kurdeg	" "	5·00
Sialkot	Zafarwal	" "	4·67
Gurdaspur	Shakargarh	" "	4·65
Nagpur	Ramtek	1st August	4·37
Jullundur	Philleur	" "	4·32
Indore	Indore	" "	4·10
Puri	Pipli	" "	4·06
Bilaspur	Pandaria	2nd "	7·34
Jalpaiguri	Baxa	" "	5·06
Damoh	Tejgarh	" "	4·10
Bilaspur	Mungeli	" "	4·09
Mymensingh	Diwanganj	" "	4·00
Damoh	Damoh	3rd "	9·75
Mandla	Dindori (Ramgarh)	" "	8·56
Damoh	Hatta	" "	7·60
Jubbulpore	Murwara	" "	6·19
	Sihora	" "	4·15
24-Parganas	Barasat	" "	4·05
Hooghly	Serampore	" "	4·04
Palamau	Balumath	5th "	6·25
Hooghly	Serampore	" "	5·16
24-Parganas	Barasat	" "	4·95
Gwalior	Jaora	" "	4·18
Sirohi	Erinpura	6th "	6·40
Damoh	Damoh	" "	5·14
Gwalior	Sitaman	" "	4·27
	Ali Rajpur	7th "	7·05
Hazara	Haripur	" "	5·82
Sialkot	Zafarwal	" "	4·77
Gurdaspur	Gurdaspur	8th "	6·84
Sialkot	Zafarwal	" "	6·06
Amritsar	Buchar	" "	5·80
Gurdaspur	Tibri	" "	5·75
Amritsar	Amritsar Jail Hospital	" "	5·53
Jodhpur	Sacher	" "	5·25
Nagpur	Katol	" "	4·84
Amritsar	Amritsar	" "	4·77
	Amritsar Jail Hospital	" "	4·60
Ajmer-Merwara	Jassa-Khera	" "	4·33

During these eight days temperature was steadily excessive over Sind, Rajputana, Central India and the North-Western Provinces and from the 4th over the

Punjab. The following gives comparative data for these provinces :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	1st Aug.	2nd Aug.	3rd Aug.	4th Aug.	5th Aug.	6th Aug.	7th Aug.	8th Aug.
	°	°	°	°	°	°	°	°
Sind	+3·4	+5·2	+4·1	+4·0	+6·0	+6·4	+7·1	+6·2
Rajputana	+2·2	+3·6	+4·6	+4·6	+4·3	+4·8	+4·3	+3·6
Central India	+2·1	+3·6	+2·9	+1·3	+1·7	+0·4	+1·1	+0·3
N.-W. P. and Oudh	+1·4	+2·1	+2·0	+1·8	+2·4	+3·0	+2·7	+1·0
Punjab	—3·0	—3·5	—2·8	+0·1	+3·2	+4·1	+3·0	—0·8

As is usual under these conditions, the rainfall was not heavy over the centre and east of the Peninsula, and the Mysore and Madras districts had generally excessive temperatures during this period. This is shown below :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	1st Aug.	2nd Aug.	3rd Aug.	4th Aug.	5th Aug.	6th Aug.	7th Aug.	8th Aug.
	°	°	°	°	°	°	°	°
Mysore	—1·2	+1·2	+0·5	+1·5	—0·2	+1·0	+1·6	+2·3
Madras Deccan	—6·9	—1·9	+0·2	+0·2	+1·6	+2·8	+1·8	+1·8
Madras Coast	—3·5	+0·5	+2·6	+3·0	+2·1	+2·2	+1·7	+1·2

On the 8th a fresh cyclonic storm appeared over the north of the Bay. This storm intensified on the 10th, passed into Orissa on the 11th, reached the east of the Central Provinces on the 12th, the centre of the Central Provinces on the 13th, Rajputana on the 14th and 15th and coalesced with the seasonal low pressure area in the north-west on the 16th. It was a storm of moderate intensity throughout its existence, and its principal feature was the excessive rain it occasioned during its passage through the Central Provinces and Rajputana and subsequently in the East Punjab. The following were the more noteworthy falls of rain in these areas :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Raipur	Dhamtari	12th August	10·26
Chanda	Armori	" "	9·05
	Chanda	" "	6·24
Gwalior	Sonkach	" "	6·03
Jubbulpore	Jubbulpore	" "	5·78
Bundelkhand	Chhatarpur	" "	4·70
Nagpur	Umrer	13th "	10·30
Chanda	Brahmapuri	" "	8·39
Nagpur	Nagpur	" "	7·83
Chanda	Chimur	" "	7·00
Wardha	Wardha	" "	6·40
Chanda	Chanda	" "	5·01
Hoshangabad	Harda	" "	4·75
Wardha	Higanghat	" "	4·57
Betul	Betul (Badnur)	" "	4·54
Nagpur	Nagpur	14th "	4·73
Jodhpur	Khabha	" "	3·18
Hissar	Tohana	15th "	6·00
Jodhpur	Parbatsar	" "	4·50
	Do.	" "	4·50
Ajmer Merwara	Masuda	" "	3·87
Udaipur	Udaipur	" "	3·82
Ajmer Merwara	Pisangan	" "	3·53
Umballa	Rupar	16th "	7·56
Kangra	Dharmsala	" "	6·75
Gurdaspur	Dalhousie	" "	6·65
Umballa	Kasuali	" "	5·94
Amritsar	Ajnala	" "	5·92
Lahore	Lahore	" "	5·60
Amritsar	Buchar	" "	5·59
Kangra	Kangra	" "	5·10
Ferozepore	Ferozepore Sadar	" "	4·71
Hoshiarpur	Hoshiarpur	" "	4·65
Jullundur	Nawashahr	" "	4·56
	Jullundur	" "	4·53

Low temperatures accompanied this rainfall over the

Central Provinces. The following gives comparative data for the central districts from the 10th to the 16th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	10th August.	11th August.	12th August.	13th August.	14th August.	15th August.	16th August.
	°	°	°	°	°	°	°
Central Provinces.	+1·2	+2·2	+0·7	−1·9	−2·7	+0·1	+0·6
Berar . .	−0·6	+0·9	−2·0	−4·8	−5·5	−1·1	+0·1

As mentioned above, the rainfall was not heavy in the Punjab until the coalescence of the cyclonic storm with the area of low pressure in the North-West, so that from the 12th to the 14th the mean temperature was generally higher than usual over north-west India. On the 14th temperature fell decidedly in this region, and from the 15th to the 18th the heat was much less than usual. The following gives data from the 12th to the 18th for North-West India :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	12th August.	13th August.	14th August.	15th August.	16th August.	17th August.	18th August.
	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	+2·1	+3·2	+2·8	+1·7	+1·3	+1·7	+1·7
Punjab . .	−0·1	+1·4	+2·0	−1·0	−3·9	−6·5	−2·8
Rajputana .	+1·3	+2·3	+3·1	+2·0	−3·4	−3·4	−2·2
Gujarat . .	+0·7	+1·2	−0·3	−3·8	−3·6	−1·4	+0·6

On the 15th a fresh depression appeared over the north of the Bay. This storm proved to be the most important and most intense storm of the month. The centre crossed the Orissa coast during the 18th, and on this day pressure was about 0·50″ below the normal over the north-west angle of the Bay. The storm reached Chota Nagpur on the 19th, the south of the North-Western Provinces on the 20th, the east of Rajputana and the west of the North-Western Provinces on the 21st and disappeared on the 22nd. Heavy rain was again experienced by stations near the path of the storm, more particularly at those in Orissa, South-West Bengal and the Central Provinces. The following were the most noteworthy amounts recorded during the progress of the storm :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Orissa Tributary Mahals.	Bispara . . .	18th August .	9·10
Puri . . .	Pipli . . .	" " .	6·81
	Gop . . .	" " .	6·20
Ranchi . . .	Bans . . .	" " .	5·06
Palamau . . .	Panki . . .	" " .	5·04
Bankura . . .	Sonamukhi . .	19th " .	6·25
Midnapore . .	Panskura . .	" " .	6·05
Ranchi . . .	Palkot . . .	" " .	5·55
Rewah . . .	Umaria . . .	" " .	5·50
24-Parganas . .	Saugor Island . .	" " .	5·19
Bankura . . .	Contai . . .	" " .	5·16
Jubbulpore . .	Sihora . . .	20th " .	7·98
Shahpura . . .	Ratlai . . .	" " .	6·66
Jubbulpore . .	Jubbulpore . .	" " .	6·40
Damoh . . .	Tejgarh . . .	" " .	5·78
Hoshangabad . .	Pachmarhi . .	" " .	5·37
Gwalior . . .	Shujaulpur . .	" " .	5·35
Maihar . . .	Maihar . . .	21st " .	5·33
Bhopal Agency .	Sironj . .	" " .	5·27
	Narsinghgarh . .	" " .	12·75
	Khilchipur . .	" " .	8·00
	Maksudangarh . .	" " .	7·52
	Biaora . . .	" " .	7·34
Kotah . . .	Manoharthana . .	" " .	6·60
Bhopal Agency .	Bhopal . . .	" " .	6·20
	Sehore . . .	" " .	6·00
Shahpura . . .	Ratlai . . .	" " .	5·80
Gwalior . . .	Agar, Western Malwa	" " .	5·66
Jalpaiguri . .	Baxa . . .	" " .	5·30
Bhopal Agency .	Kurwai . . .	" " .	5·30
Shahpura . . .	Khairabad . .	" " .	5·20
Bhopal Agency .	Khilchipur . .	22nd "	8·98

The heavy rainfall was accompanied with a considerable reduction of temperature, and this reduction of temperature advanced westward as far as Eastern Rajputana following the storm rainfall. The following gives comparative temperature data for the divisions of Orissa, Ganjam, Bengal, Chota Nagpur, Bihar, the Central Provinces, the North-Western Provinces, Central India, and

Gujarat, from the 17th to the 23rd, and exhibits the advance of the cool wave westward:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	17th August.	18th August.	19th August.	20th August.	21st August.	22nd August.	23rd August.
	°	°	°	°	°	°	°
Orissa	−0·1	−3·0	−3·0	+1·9	+2·1	+2·6	+3·2
Ganjam	+0·1	−1·1	−0·6	+2·2	+1·3	+0·4	+0·1
Bengal	+4·0	+2·5	+0·6	+1·6	+2·8	+2·5	+1·5
Chota Nagpur	+2·8	+2·8	−1·5	−1·9	−0·5	+0·5	+0·3
Bihar	+4·7	+2·7	+2·0	−0·4	+1·5	+3·4	−1·0
Central Provinces.	+0·4	+0·5	+0·5	−1·0	−3·9	−1·5	+0·3
North-Western Provinces and Oudh.	+1·7	+1·7	+1·5	+1·8	+1·4	+0·4	−0·4
Central India	−0·3	+0·9	+0·8	−0·3	−3·0	−3·9	−1·6
Gujarat	−1·4	+0·6	+1·0	+1·8	+1·5	−1·0	−0·3

This storm, owing in part at least to its more northerly track than the two preceding storms, was accompanied with less general rain than the two preceding storms, so that those parts of the country which were outside the immediate track of the storm experienced steadily higher temperatures than usual. The following gives comparative temperature data for the divisions of the Punjab, Sind, the Peninsula, Burma and Assam from the 19th to the 23rd in illustration:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	19th August.	20th August.	21st August.	22nd August.	23rd August.
	°	°	°	°	°
Punjab	+1·3	+3·0	+5·2	+5·0	+4·9
Sind	+2·1	+2·3	+2·8	+1·5	+3·1
Bombay Deccan	+0·7	+1·4	+1·2	+0·5	+0·3
West Coast	+1·4	+1·1	+1·4	+1·8	+2·5
Mysore	+0·6	+0·4	+0·7	+1·3	+1·5
Madras Deccan	+1·9	+1·4	+1·8	+2·4	+2·5
Madras Coast	+2·0	+2·8	+3·3	+3·3	+2·6
South India	+1·6	+2·2	+1·7	+1·3	+1·8
Burma	+1·9	+3·0	+2·8	+2·4	+3·3
Assam	+4·2	+3·2	+2·3	−0·7	−1·1

A fourth depression appeared over the Bay on the 24th. This storm was of about the same intensity as the two which were developed during the first half of the month and of less intensity than the one described above. The storm crossed the Orissa coast during the 26th and advanced through Chota Nagpur into the North-Western Provinces, where it disappeared on the 31st.

It thus followed, like the third storm of the month, a fairly northerly path and the rainfall accompanying it was hence mainly confined to Bengal, the Gangetic Plain and the Central Provinces. The rainfall was not very heavy, but the following amounts exceeding 5″ in 24 hours were recorded in the neighbourhood of the storm's path.

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Balasore	Balasore	26th August	5·12
Shahjahanpur	Pawanyan	27th ,,	7·68
Bilaspur	Korba	,, ,,	7·06
	Bilaspur	,, ,,	6·52
Balasore	Balasore	,, ,,	5·30
Khulna	Mallahat	,, ,,	5·15
Jubbulpore	Murwara	28th ,,	5·75
Banda	Badausa	,, ,,	5·48
Mandla	Mandla	,, ,,	5·20
Jalpaiguri	Baxa	29th ,,	6·00
Jhansi	Lalitpur	,, ,,	5·05

The reduction of temperature due to this rainfall commenced in Orissa and Bengal on the 27th, advanced into the east of the Central Provinces on the 28th, into the Central Provinces and North-Western Provinces on the 29th and into Rajputana on the 30th and 31st. The following gives comparative temperature data for Bengal, Orissa, Chota Nagpur, the North-Western Provinces, the Central Provinces, Central India and Rajputana from the 24th to the 31st, and illustrates the appearance and progressive movement of the low temperature due to the rainfall of this storm:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	24th Aug.	25th Aug.	26th Aug.	27th Aug.	28th Aug.	29th Aug.	30th Aug.	31st Aug.
	°	°	°	°	°	°	°	°
Bengal	+0·9	+2·9	+3·0	0	+0·6	+1·7	+1·1	+0·8
Orissa	+1·7	+2·9	+2·8	−3·0	+0·1	+1·5	+2·9	+0·5
Chota Nagpur	+1·5	+1·3	+0·9	−0·9	−2·0	+0·4	+1·5	+1·7
North-Western Provinces and Oudh.	−0·6	−3·0	−2·6	−0·2	−0·3	−0·5	−0·1	−0·5
Central Provinces	+1·1	+0·7	+1·4	+1·0	−1·0	−1·8	−1·8	−0·1
Central India	−0·6	−1·5	−0·9	+0·1	+0·6	−3·4	−2·6	−2·5
Rajputana	+2·3	+2·0	+1·2	+3·0	+2·8	+3·8	+3·2	+2·4

It will be noticed that the movements of the storm under review and the accompanying rainfall were generally similar to the movements and rainfall of the third storm, so that the temperature conditions were also similar. The following gives temperature data for the Punjab, Sind, Gujarat, the Peninsular divisions and Burma from the 24th to the 31st :—

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

The preceding data show that all over this area the mean temperature was in excess of the normal, the excess having been greatest in the Punjab but considerable in the Peninsula, more particularly in Madras. As has been mentioned elsewhere, a partial break in the rains set in over the Peninsula and North-West India on the 18th, and, though this break was to a certain extent interrupted by the action of the last storm of the month, the weather over the Peninsula and North-Western India was generally finer, drier and hotter than usual from the 18th till the close of the month.

Pressure.—The mean pressure of the whole Indian area was 0·025 inch below the normal. Relatively to this general condition, pressure was higher than usual over the Punjab, Rajputana and Sind and along the line of the Himalayas as well as over the Peninsula to the south of Lat. 20° N. Over the intervening area pressure was below the normal. The general distribution of pressure thus showed a broad band of relatively low pressure extending from Burma westward through Bengal and across the head of the Peninsula as far as Gujarat, with higher pressures than usual on either side. The monsoon trough of low pressure thus lay some distance to the south of the position it normally occupies and was more than usually pronounced. The vertical pressure anomalies were positive in Baluchistan and the Himalayan region and were negative in the Central Provinces and Southern India.

The following table gives the variation data of the month for the eleven meteorological divisions :—

Meteorological Province.	Variation from normal of mean 8 A.M. pressure of August 1900.	Pressure anomaly, August 1900.
	"	"
Burma Coast and Bay Islands	—·040	—·015
Burma Inland	—·033	—·008
Assam	—·026	—·001
Bengal and Orissa	—·037	—·012
Gangetic Plain and Chota Nagpur	—·032	—·007
Upper Sub-Himalayas	—·012	+·013
Indus Valley and North-West Rajputana	—·017	+·008
East Rajputana, Central India and Gujarat	—·046	—·021
Deccan	—·033	—·008
West Coast	—·003	+·022
South India	—·005	+·020

Temperature.—The mean temperature conditions of the month differed considerably from the normal. Within the trough of low pressure noticed above, where presumably the sky was more cloudy and the rainfall, if not heavier, more continuous than elsewhere, the mean temperature was lower than usual, while in all other parts of the country, except over the south-east of the Punjab, it was higher.

The mean maximum temperature of the month was below the normal over the south-east of the Punjab. The deficiency was largest at Ludhiana (—5°·0) and Umballa (—2°·3). Temperature was also below the normal within a broad band extending from Gujarat and the Bombay coast eastward across the head of the Peninsula and probably the north of the Bay as far as Upper Burma. The deficiency in this area was small generally and exceeded 1° only at Rajkot (—1°·9), Surat (—1°·8), Poona (—1°·1), Saugor (—1°·1), Seoni (—1°·1), Mandalay (—1°·2) and Minbu (—1°·9). The day temperature was also below the normal over Mysore. Over the remainder of India the mean maximum temperature was in excess. The excess was

considerable and more than $2\frac{1}{2}^{\circ}$ in three regions comparative data for which are given below :—

Area.	Station.	Mean maximum temperature. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
		°	°	°
First Area	Bikaner	100·0	96·3	+3·7
	Jacobabad	107·0	103·6	+3·4
	Hyderabad (Sind)	98·7	95·3	+3·4
	Kurrachee	92·0	89·2	+2·8
	Mooltan	103·0	100·3	+2·7
Second Area	Silchar	94·0	89·2	+4·8
	Jalpaiguri	91·3	87·8	+3·5
	Bahraich	92·2	89·3	+2·9
Third Area	Madras	98·4	93·7	+4·7
	Nellore	98·6	95·0	+3·6
	Cuddalore	96·8	93·6	+3·2
	Trichinopoly	98·6	96·0	+2·6
	Cochin	85·8	83·2	+2·6

The mean minimum temperature of the month was above the normal practically over the whole country. The excess was greatest in the three areas where also the mean maximum or day temperature was in largest excess. The following gives data :—

Area.	Station.	Mean minimum temperature. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
		°	°	°
First Area	Bikaner	83·3	78·0	+5·3
	Rawalpindi	78·2	75·1	+3·1
	Montgomery	84·0	81·0	+3·0
	Sialkot	80·1	77·3	+2·8
	Sambhar	78·6	75·8	+2·8
	Kurrachee	81·1	78·4	+2·7
	Ajmer	77·0	74·5	+2·5
	Jaipur	77·4	75·0	+2·4
	Jacobabad	83·7	81·3	+2·4
	Sirsa	81·9	79·5	+2·4
	Lahore	81·1	78·9	+2·2
Second Area	Jalpaiguri	78·5	76·1	+2·4
	Purnea	80·0	77·9	+2·1
	Bahraich	80·0	77·9	+2·1
Third Area	Cuddapah	79·2	76·5	+2·7
	Madras	80·0	77·3	+2·7
	Salem	74·5	71·8	+2·7
	Cuddalore	79·0	76·5	+2·5
	Trichinopoly	78·6	76·2	+2·4

The mean temperature of the month was in slight defect over parts of the East Punjab and in trifling defect within a narrow band running from Kathiawar across the head of the Peninsula as far as Upper Burma. Over the remainder of India the mean temperature was in excess. The excess was considerable over the Western Desert (Bikaner $+4^{\circ}\cdot5$), the submontane regions of North-East India (Jalpaiguri $+3^{\circ}\cdot0$) and in the Carnatic (Cuddapah $+3^{\circ}\cdot9$). The mean temperature was generally below the normal at the Kashmir stations but was generally slightly excessive at the remaining hill stations.

The following table gives comparative temperature variation data of the month for the eleven meteorological provinces :—

Meteorological Province.	Variation of actual from normal of: Mean maximum temperature, August 1900.	Mean minimum temperature, August 1900.	Mean daily temperature, August 1900.
	°	°	°
Burma Coast and Bay Islands	+0·3	+1·1	+0·7
Burma Inland	−0·3	+0·8	+0·3
Assam	+2·3	+1·2	+1·8
Bengal and Orissa	+1·5	+1·2	+1·3
Gangetic Plain and Chota Nagpur	+1·1	+0·9	+1·1
Upper Sub-Himalayas	−0·2	+1·5	+0·7
Indus Valley and North-West Rajputana.	+2·5	+2·3	+2·4
East Rajputana, Central India and Gujarat.	−0·5	+1·3	+0·4
Deccan	−0·2	+0·8	+0·3
West Coast	+1·1	+1·3	+1·2
South India	+1·5	+1·3	+1·4

Winds.—The monsoon current over the Bay was, both judged by the observations recorded on board ships and by those received from the Bay Islands and from the Bay ports, considerably stronger than usual. The winds drew into south-east over Bengal, and both in that province and in the Gangetic Plain the wind, on the mean of the month, was more easterly than usual.

The Arabian Sea current, on the mean of the month, was of about normal strength over the sea area but was stronger than usual along the West coast of the Peninsula. About the 16th the velocity of the current decreased and from the 17th to the end of the month the monsoon was lighter than usual. Normal winds prevailed across the Deccan. The mean direction of the wind was nearly normal at the Seychelles and Zanzibar.

Humidity.—The mean humidity conditions of the month were practically normal over Lower Burma. The air was slightly drier than usual over Bengal and the Gangetic Plain, slightly to considerably drier than usual over Baluchistan and the Indus Valley and considerably drier than usual over the east of the Peninsula. The deficiency was most marked at the stations of Kurrachee (—5°/₀), Secunderabad and Salem (each—7°/₀) and Bellary and Madras (each—9°/₀). Over the remainder of India the air was damper than the normal. The excess was most marked and considerable over the East Punjab (Lahore and Ludhiana +7°/₀) and in South Rajputana (Deesa +5°/₀). The following gives variation data of the mean aqueous vapour pressure and mean humidity of nine meteorological provinces :—

Meteorological Province.	Mean Absolute Humidity.		Mean Relative Humidity.	
	Average actual, August. 1900.	Variation of actual from normal, August 1900.	Average actual, August 1900.	Variation of actual from normal, August 1900.
	"	"	%	
Burma Coast and Bay Islands	·913	+·028	87	—1
Bengal and Orissa	·975	+·029	87	0
Gangetic Plain and Chota Nagpur	·912	+·010	82	—2
Upper Sub-Himalayas	·902	+·046	79	+3
Indus Valley and North-West Rajputana.	·864	+·002	64	—2
East Rajputana, Central India and Gujarat.	·875	+·070	79	+4
Deccan	·730	+·013	79	—1
West Coast	870	+·017	86	—2
South India	·673	+·005	71	—3

Cloud.—There was slightly more cloud than usual in August 1900 over nearly all parts of the country. The excess was generally small but amounted to 1 or more at Karwar (+1·3), Bangalore (+1·0), Bellary (+1·2), Buldana (+1·3) and Hazaribagh (+1·0). The sky was less clouded than the average in three areas. The first included the Indus Valley, the second, parts of the Bombay Deccan and Berar and the third, the Madras district. The deficiency was small except at Kurrachee (—1·1). At the hill stations the sky was more cloudy than the average except in the Eastern Himalayas where Darjeeling (—1·8) and Katmandu (—0·4) reported clearer skies than usual. Cloud was also in local defect at Leh. The following table gives variation data of the mean cloud amount of nine meteorological provinces :—

Meteorological Province.	Mean cloud amount.	
	Average actual, August 1900.	Variation of actual from normal, August 1900.
Burma Coast and Bay Islands	8·5	+0·3
Bengal and Orissa	8·6	+0·7
Gangetic Plain and Chota Nagpur	8·0	+0·3
Upper Sub-Himalayas	6·4	+0·4
Indus Valley and North-West Rajputana	3·3	—0·7
East Rajputana, Central India and Gujarat	8·4	+0·7
Deccan	8·3	+0·2
West Coast	8·8	+0·8
South India	8·1	+0·5

Rainfall.—The distribution of the rainfall in August 1900 was irregular and was in marked contrast with the rainfall distribution in August 1899. The distribution was chiefly determined by the following features :—

(1) The series of cyclonic storms which passed from the Bay along a west-north-west or west track into North-West India.

(2) The increased strength of the Bay monsoon current.

(3) The normal strength of the Arabian Sea monsoon current.

(4) The southerly location of the monsoon trough of low pressure ; and

(5) The break in the rains which occurred over Western and North-Western India during the last ten days of the month.

The cyclonic storms of the month were of about the

average intensity except the third of the series. Within this storm the barometer marked more than 0·5″ below the normal, and its intensity was above the average. Storms were, however, more frequent than usual and the period of their existence was perhaps unusually prolonged. The two first storms of the month took an unusually westerly track and broke up in Southern Rajputana, while the two later storms advanced more to north-west and broke up in the North-Western Provinces. The two first storms were accompanied with a marked rise in the strength of the Arabian Sea monsoon current, and the north of the Bombay Presidency and Rajputana as well as the central districts of India received exceptionally heavy and general rain during their existence. All the storms crossed the Orissa coast and affected the Central Provinces so that the whole of that region received continuous and heavy rain.

The principal periods of rainfall were—

(1) The 1st to the 7th, during the existence of the first storm of the month, when Burma, Orissa, the North-Western Provinces, the head of the Peninsula, the West coast, North Bombay and Rajputana received general, and in places, heavy rain.

(2) The 8th to the 16th, when all parts of the country except the east of the Peninsula received general, moderately heavy rain from the second cyclonic storm.

(3) The 17th to the 21st, when Burma, North-East India, the central parts of the country (including Rajputana) and the Gangetic Plain received rain under the influence of the third storm.

(4) The 24th to the 31st, when Burma, North-East India and the Gangetic Plain received general rain from the fourth and last storm of the month.

On the 18th, rain, to a great extent, ceased over the Peninsula and North-West India and, though there was some extension of rain over Rajputana on the 21st and 22nd and over the Peninsula on the 23rd, 24th and 25th, a fairly general break in the rains prevailed over Madras, Bombay and the Punjab from the 18th to the close of the month.

The above indicates the chief periods of rainfall over the Indian region during the month of August. Its actual distribution and its variations from the normal are exhibited in Plates IV and V at the end of the review.

The total rainfall of the month was between 53″ and 55″ on the North Tenasserim coast; over 30″ on the Arakan coast; over 20″ in Orissa and the east of the Central Provinces; over 20″ also on the Kanara, Bombay and Kathiawar coasts, and locally more than 30″ at Rajkot in the centre of Kathiawar. The rainfall was light and less than 1″ in amount for the whole month over Baluchistan and the South Punjab on the one hand and in the dry districts of the Deccan and Madras on the other. Thus, Tinnevelly and Pamban in the extreme south received no rain, Nellore on the Madras coast only 0·66″, and Montgomery in the South Punjab only 0·45″. The following table gives a summary of the rainfall data of the month for the eleven meteorological divisions of India :—

METEOROLOGICAL PROVINCE.	RAINFALL.			
	Mean actual, August 1900.	Mean normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inches	Inches.	Inches.	
Burma Coast and Bay Islands	30·24	27·79	+4·78*	+17
Burma Inland	10·21	8·51	+1·71	+20
Assam	9·33	16·54	—7·20	—44
Bengal and Orissa	12·15	13·89	—1·74	—13
Gangetic Plain and Chota Nagpur	9·55	11·57	—2·12*	—18
Upper Sub-Himalayas	11·19	11·15	—0·51*	— 5
Indus Valley and North-West Rajputana.	2·36	2·50	—0·14	— 6
East Rajputana, Central India and Gujarat.	15·80	7·90	+7·54*	+95
Deccan	10·78	9·23	+1·73*	+19
West Coast	17·31	17·49	—0·18	— 1
South India	2·81	4·36	—1·48	—34

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

Atmospheric Pressure.

The mean pressure of the whole Indian land area was 0·025 inch below the normal and the local variations from the normal were large and important.

Pressure was in local excess over Northern India to the north of a line running from Hyderabad (Sind) north-eastward to the neighbourhood of Delhi and thence east-

ward to Dhubri and Sibsagar. The local excess was generally small but exceeded 0·02 inch at the stations for which comparative data are given below :—

STATION.	Variation from normal of mean 8 A.M. pressure of August 1900.	Pressure anomaly, August 1900.
	"	"
Umballa	+·015	+·040
Khushab	+·006	+·031
Rawalpindi	+·003	+·028
Peshawar	+·001	+·026
Jalpaiguri	—·004	+·021

Pressure was also in local excess over the southern half of the Bay and the greater part of the Peninsula. The excess in this area was greater than in the more northern area of excess and the anomalies exceeded 0·02 inch at the following stations :—

STATION.	Variation from normal of mean 8 A.M. pressure of August 1900.	Pressure anomaly, August 1900.
	"	"
Tinnevelly	+·017	+·042
Colombo	+·016	+·041
Cochin	+·014	+·039
Negapatam	+·013	+·038
Trincomalee	+·011	+·036
Calicut	+·008	+·033
Karwar	+·007	+·032
Mysore	+·005	+·030
Coimbatore	+·005	+·030
Mangalore	+·004	+·029
Nellore	+·004	+·029
Madura	+·002	+·027
Trichinopoly	0	+·025
Cuddalore	0	+·025
Madras	—·001	+·024
Goa	—·002	+·023
Port Blair	—·004	+·021

Between these two areas of local excess there existed a broad band of locally deficient pressure. This band extended from Tenasserim through Burma across the north of the Bay through Lower Bengal westward as far as Gujarat and Lower Sind. In the centre of the band there existed a narrow track within which the deficiency was more than 0·02 inch, while at the head of the Bay there was a small area within which the anomaly equall 0·04". The following gives comparative data for the stations at which the deficiency exceeded 0·02 inch.

STATION.	Variation from normal of mean 8 A.M. pressure of August 1900.	Pressure anomaly, August 1900.
	"	"
Saugor Island	—·065	—·040
Sambalpur	—·061	—·036
Chittagong	—·060	—·035
Akyab	—·060	—·035
Nowgong	—·059	—·034
Veraval	—·059	—·034
Jhansi	—·058	—·033
Tavoy	—·057	—·032
False Point	—·054	—·029
Saugor	—·052	—·027
Surat	—·052	—·027
Rajkot	—·052	—·027
Moulmein	—·051	—·026
Cuttack	—·050	—·025
Malegaon	—·050	—·025
Allahabad	—·049	—·024
Rangoon	—·047	—·022
Ajmer	—·047	—·022
Deesa	—·047	—·022

The above figures show that the abnormal distribution of pressure was exceedingly favourable for the full extension of the monsoon currents. The trough of low pressure lay well to the southward, while the increased pressure to the northward and southward produced steeper gradients than usual on either side of the trough.

The chart of the actual distribution of pressure shows that the seasonal low pressure area lay over Sind and the

south-west of the Punjab and that a very well-defined trough of low pressure extended thence east-south-eastward as far as the north-west angle of the Bay. The pressure gradients were at the same time somewhat steeper than usual in all parts of the country. Comparing the barometric variation chart of August 1900 with that for the same month of last year the most marked difference will be noticed. In last year's chart there is no trace of the trough of low pressure so noticeable in August 1900, and the greater part of Western and North-Western India was last year occupied by a large area of excessive pressure. Comparing the charts of actual pressure it will be observed that, while the pressure conditions in the south of the Peninsula were approximately similar in the two months, the low pressure area over the North-West India lay much further to the northward in August 1899 than in August 1900, and that the trough of low pressure was less well-defined and further northward in the earlier than in the later year.

During the month under review pressure was in slight excess at the Himalayan hill stations; in defect at the central hill stations and exactly normal at Wellington in the south. The vertical pressure anomalies were positive in the Baluchistan and Himalayan hill regions and were negative in the central and southern hill districts. This is shown by the following data for ten pairs of stations:—

HILL STATION.	Variation from normal pressure, August 1900.	PLAIN STATION.	Variation from normal pressure, August 1900.	Vertical pressure anomaly. (Hill-Plain).
	"		"	"
Quetta . .	+·005	Jacobabad . .	—·024	+·029
Murree . .	+·043	Peshawar . .	+·001	+·042
Leh . . .	+·022	Lahore . .	—·015	+·037
Simla . . .	+·016	Ludhiana . .	—·037	+·053
Chakrata . .	+·020	Roorkee . .	—·014	+·034
Ranikhet . .	+·015	Bareilly . .	—·018	+·033
Darjeeling . .	+·042	Dhubri . .	—·027	+·069
Mount Abu . .	—·046	Deesa . .	—·047	+·001
Pachmarhi . .	—·057	Hoshangabad .	—·037	—·020
Wellington . .	0	Coimbatore .	+·005	—·005

Barometric depressions and cyclonic storms of the month.

The month of August 1900 was very disturbed, and a series of cyclonic storms of greater or less intensity passed across Northern India. So closely did the storms follow one another that it was seldom during the month that there was a day on which the weather was not, to some extent, under the influence of one of these disturbances. Moreover, throughout the greater part of the month, the trough of low pressure, which largely determines the path of these storms, lay well to the southward of its normal position, so that the storms followed a track which led them through Orissa, the Central Provinces and the South Gangetic Plain into Rajputana. This track which permits of a free flow of moist air into Upper India and at the same time causes the cyclonic indraught to affect the Arabian Sea monsoon current at an early date in the storm's progress, leads to the whole country coming under the influence of the storm's action, and is consequently favourable to the extension of rain to the furthest limits of the country. It will be noticed that the last storm of the series preserved a more northerly track, and it will be observed that as a result the Arabian Sea monsoon current failed to feed into the storm area so that the rainfall of the last ten days of the month was much less heavy and less extensive than that of the first twenty days. The first storm of the month was initiated during the last three days of the previous month.

Cyclonic storm of July 28th to August 8th :—On the 28th July the barometer was falling slowly over the head of the Bay, where, however, pressure still marked slightly above the normal. The winds were increasing from west-south-west at Diamond Island and had

shifted to east at Gopalpur. 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. *Foreric*	12 47	84 25	29·680	SW	4	Rough quarterly sea and cloudy.
S. S. *Gækwar*	12 52	84 33	...	SW	5	Fresh following sea and fine.
S. S. *Patna*	13 33	80 41	·726	S	5	Moderate sea.
S. S. *Ujina*	13 37	85 19	·643	WSW	4	Moderate sea, 4 P.M., occasional rain squalls.
S. S. *Chilka*	15 18	95 36	·748	W	5	Moderate sea and occasional light rain.
S. S. *Fonar*	15 50	82 55	·633	SW	4	Cloudy, 4 A.M. heavy rain.
S. S. *Chelydra*	16 14	91 53	·622	SSW	4 to 6	Squally with rain.
S. S. *Kasara*	16 18	93 55	·614	SSW	4	Moderate south-west swell and cloudy, 8 P.M. passing rain squalls.
S. S. *Ethiopia*	16 27	93 22	·661	WSW	5	Moderate sea and squally.
S. S. *Purulia*	16 30	96 18	·715	S	2	Overcast, Noon rain squalls.
S. S. *Maharaja*	Rangoon		·657	...	...	8 P.M. rainy appearance.
S. S. *Nurani*	18 16	87 02	·634	Var.	3	Slight showers of rain.
S. S. *Malda*	19 06	90 21	·573	SSW	2	Moderate swell and fine, 8 P.M. rainy.
S. S. *Saint Ninian*	18 28	87 11	·600	Var.	3	Cloudy, 4 A.M. occasional passing showers.
S. S. *Umfuli*	19 48	86 51	·585	Var.	1	Sea smooth and cloudy.

The above shows that light variable winds and calms prevailed over the north-west of the Bay between Lats. 17° and 20°N and in Long 87°E., while moderate to fresh south-westerly winds were reported over the south and centre of the Bay. The following gives the 8 A.M. observations at the coast stations around the north of the Bay:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inch.	
Rangoon	29·701	—·054	—·026	SW	5	10	...	Showery.
Diamond Island.	·699	—·050	—·018	WSW	13	10	0·28	
Akyab	·672	—·026	+·021	E	3	7	0·32	
Chittagong	·662	—·033	+·052	SSE	5	5	0·02	
Barisal	·648	—·023	+·089	S	3	4	0·10	
Calcutta	29·630	—·024	+·090	SSE		6	...	
Saugor Island	·620	—·029	+·079	ENE	10	8	0·04	Wind variable.
Balasore	·633	—·018	+·106	WSW	3	3	...	
Shortt's Island	·619	—·019	...	S	11	7	0·70	
False Point	·602	—·035	+·039	Calm	7	8	0·62	Showery.
Cuttack	·604	—·026	+·049	Calm	1	5	...	
Gopalpur	·601	—·003	?+·063		9	1	0·11	
Waltair	·620	+·022	—·013	SW	10	10	...	
Cocanada	·620	+·028	—·009	NW	7	10	...	
Masulipatam	·641	+·030	—·026	WNW	6	9	0·78	Distant lightning.

Light irregular winds were reported around the Bay with light rain.

July, 29th.—Pressure continued to give way over the northern half of the Bay, and a shallow low pressure area had been developed there. The following gives the 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. *Fonar*	13 31	81 08	29·693	SW	5	Heavy S.S.E. sea, 4 A.M. fine.
S.S. *Upada*	13 43	84 34	·599	W	4	Moderate sea, cloudy.
S.S. *Chilka*	14 25	93 51	·695	WSW	5	Cloudy.
S.S. *Maharaja*	15 39	94 33	·619	WSW	3	Overcast, 4 A.M. rain squalls.
S.S. *Bhundara*	15 46	85 44	·599	SW	5	Moderate sea, overcast.
S.S. *Foreric*	16 08	85 42	·540	W	5	Moderate sea, cloudy, noon heavy rain squalls.
S.S. *Malda*	16 13	93 56	·604	SW by W	4	Moderate sea, cloudy, 4 P.M. heavy rain squalls.
S.S. *Gækwar*	16 44	86 05	·549	SW	6	Increasing sea, rainy.
S.S. *St. Ninian*	16 44	86 06	·600	WSW	6	Heavy head sea, heavy rain.
S.S. *Kasara*	Rangoon		·665	...	...	4 A.M. cloudy.
S.S. *Ujina*	16 51	86 35	·603	WSW	4	Rainy.
S.S. *Chelydra*	19 05	89 35	·522	Var.	2	Fine and clear.
S.S. *Ethiopia*	19 33	89 30	·591	NW	2	Fine.
S.S. *Okhla*	19 55	87 22*	·593	SW	2	Moderate south-west swell.

* Noon position.

The above shows light unsteady winds to the northward of Lat. 19° N. and moderate to strong south-west

winds over the centre of the Bay. The following gives the 8 A.M. observations at the coast stations around the Bay :—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inches	
Rangoon .	29·662	—·039	—·058	WSW	4	3	2·12	Showery.
Diamond Island.	·669	—·030	—·041	SW	13	8	1·90	Showery.
Akyab .	·622	—·050	—·018	E	3	8	0·13	
Chittagong	·650	—·012	+·043	NE	3	9	...	
Barisal .	·622	—·026	+·064	ENE	1	5	0·06	
Calcutta .	·608	—·022	+·071	SW	2	6	...	
Saugor Island.	·590	—·030	+·053	N	6	7	...	Sea slight.
Balasore .	·601	—·032	+·078	Calm	2	6	...	Distant lightning.
Shortt's Island.	·604	—·015	...	NNE	7	7	...	
False Point	·588	—·014	+·029	N	5	9	...	Distant lightning.
Cuttack .	·595	—·009	+·043	Calm	2	5	...	
Puri . .	·595	—·005	...	Calm	4	5	...	Dark gloomy.
Gopalpur .	·581	—·020	+·042	N	6	1	...	Wind variable.
Waltair .	·597	—·023	—·008	SW	15	10	0·05	Sea smooth
Cocanada .	·614	—·006	—·016	WSW	7	9	...	
Masulipatam	·664	+·023	—·001	WNW	11	10	...	Distant lightning.
Nellore .	·725	+·059	+·045	WNW	6	9	...	
Madras .	·745	+·036	+·022	W	9	10	...	

The winds were northerly on the Bengal, Orissa and Circars coasts and easterly on the Arakan coast, but the force was low and there was practically no rain.

July 30th.—The barometric fall over the north of the Bay had become quicker and was brisk at the Orissa and Circars ports. The low pressure area over the north of the Bay had concentrated somewhat and gradients had at the same time become steeper over the south of the Bay. The following gives the 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. *Foreland* .	12 20	84 21	29·617	WSW	5	Rough sea and fine, noon violent rain squalls.
S.S. *Chilka* .	13 13	91 59	·649	SW	6	Constant heavy squalls.
S.S. *St. Ninian*	15 01	83 35	...	SW	7	Heavy sea. overcast, 4 A.M. blinding, continuous heavy rain.
S.S. *Malda* .	Rangoon		·680	...	...	4 A.M. heavy rain squalls.
S.S. *Upada* .	16 57	86 09	·409	N	2	Moderate sea.
S.S. *Okhla* .	17 49	85 33	·503	NW	4	Moderate sea, overcast, 8 P.M. severe squalls.
S.S. *Maharaja*.	18 49	92 20	·521	Calm	0 to 2	Overcast. Noon, squalls of rain.
S.S. *Bhundara*.	18 53	87 22	·463	NE by N	5	Slight sea, cloudy, 4 A.M., heavy rain squalls.
S.S. *Foreric* .	19 32	87 27	·380	NE	5	Slight head sea, cloudy, noon heavy rain.
S.S. *Ujina* .	19 48	87 44	·487	NE	2	Cloudy.
S.S. *Gækwar* .	20 15	87 43	·489	NE	5	Squally, 4 P.M. heavy rain.

North-easterly winds were reported by the *Gækwar* (Lat. 20° 15′ N and Long. 87° 43′ E), the *Bhundara* (Lat. 18° 53′ N and Long. 87° 22′ E), the *Foreric* (Lat. 19° 32 N and Long. 87° 27′ E) and the *Ujina* (Lat. 19° 48′ N and Long. 87° 44′ E), whilst the *Okhla* in Lat. 17° 49′ N and Long. 85° 33′ E had a north-west wind and the *Upada* in Lat. 16° 57′ N and Long. 86° 9′ E, a northerly wind. Consequently the centre of the storm was probably further to the south-eastward than was shown in the Daily Weather Report, and probably lay in about Lat. 17° 10′ N and Long. 88° 20′ E. Across the centre of the Bay fresh to strong west-south-west winds were blowing.

In the following table are given the 8 A.M. observations at the coast stations around the north of the Bay :—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inches	
Rangoon .	29·675	+·013	—·043	ENE	5	10	1·12	Showery.
Diamand Island.	·659	—·010	—·048	WSW	13	10	0·48	Showery.
Akyab . .	·582	—·040	—·056	SE	3	10	0·02	Distant lightning.
Chittagong .	·576	—·074	—·028	SSE	2	2	0·02	
Barisal . .	·598	—·024	+·040	Calm	2	10	0·50	Raining.
Calcutta .	·566	—·042	+·030	NW	3	10	0·03	Drizzling.
Saugor Island	·548	—·042	+·014	NE	7	9	0·05	Wind variable.
Balasore .	·548	—·053	+·028	NNE	2	8	0·14	Distant lightning.
Shortt's Island	·530	—·074	...	ENE	5	10	...	
False Point .	·523	—·065	—·033	NNE	5	9	...	
Cuttack .	·542	—·053	—·006	ENE	2	9	0·54	
Puri . .	·521	—·074	...	N	8	3	0·11	
Gopalpur .	·518	—·063	—·024	NNW	8	2	0·41	
Waltair .	·530	—·067	—·069	SW	6	10	0·18	Sea smooth.
Cocanada .	·571	—·043	—·058	WNW	10	10	0·08	Sea slight.
Masulipatam .	·658	—.006	—·002	WNW	12	10	3·55	Continuous rain.

The barometer had fallen briskly over the north-west of the Bay and the winds varied between north-east and north-west on the north-west coast of the Bay, while they had shifted to south-east on the Arakan coast. Light rain had commenced in Deltaic Bengal and Orissa where the sky was very cloudy or overcast.

July 31st :—The barometer had recovered briskly in Burma and had fallen briskly to rapidly over Orissa and the north-west of the Bay. These changes were due to the movement of the storm which had advanced quickly north-westward. The following gives marine data for this date :—

Name of Vessel.	8 A.M. Position.		Barometer as corrected by Calcutta Office.	Wind.		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Chilka* .	12 02	90 29	29·700	SW	7	High head sea. Cloudy.
S.S. *Fazilka* .	12 34	84 42	·652	...	...	High sea-squally, 4 A.M. violent squalls.
S.S. *Clan Urquhart.*	13 00	80 24	...	W	4	Cloudy.
S.S. *Ula* . .	13 04	84 37	·593	SW	6	High sea, overcast. Noon squally with rain.
S.S. *St. Ninian* .	14 03	84 23	·660	SW by W	9	Mountainous sea, 4 A.M. frequent squalls of hurricane force and heavy rain.
S.S. *Foreland* .	14 09	85 04	·577	WNW	9	Heavy sea and heavy squalls.
S.S. *Vortigern* .	14 18	81 21	·697	W	6	High beam sea. Heavy squalls.
S.S. *Baron Fairlie*	14 46	94 15*	·750	SSW	7	High cross sea, and squally with rain.
S.S. *Okhla* . .	16 42	84 13	·554	W	8	Overcast, 4 A.M., heavy rain squalls.
S.S. *Upada.* .	20 19	87 48	·330	E	4	Moderate sea. Cloudy.
S.S. *Bhundara* .	21 22	87 56	·424	ESE	5	Squally.
S.S. *Foreric* .	21 40	88 00	·420	ESE	4	Moderate head sea. Squally.
S.S. *Maharaja* .	Chittagong		·517	...	...	Midnight, frequent squalls of wind and rain.

* Noon position.

The above shows that the storm had intensified considerably and that steep gradients prevailed over a large part of the Bay. The winds had at the same time increased in strength and averaged 5·4 for the whole Bay Easterly winds were reported from all the vessels at the head of the Bay, *viz.*, the *Bhundara*, *Foreric* and *Upada*, but the force was only moderate to fresh; off the Madras coast the wind had drawn more into west and the *St. Ninian* in Lat. 14° 3′ N. and Long. 84° 23′E reported a south-west-by-west hard gale, the *Foreland* a west-north-west hard gale and the *Okhla* a westerly fresh gale. The weather was very squally and rough.

The following gives an account of the weather as experienced on board the F. L. V. *Torch* on the 30th and 31st and shows that to the north of the storm in the region of south-easterly and easterly winds the weather was not seriously disturbed.

30th.— A quiet southerly swell, weather squally and unsettled passing rain squalls, heavy bank from north-west to east. Heavy thunder to west-south-west and south-east, wind and sea increasing during the afternoon, wind backed to south-south-east and then went back to east during the night.

31st.—A moderate southerly sea and short choppy sea from the south-east, weather unsettled, with frequent passing heavy rain squalls, wind veering between east and south-east."

The following table gives the 8 A.M. observations at the coast stations on this day :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches.	
Moulmein .	29·780	+·065	+·036	...	3	9	3·30	
Rangoon .	·752	+·077	+·032	SSE	6	10	1·13	
Diamond Island.	·713	+·054	+·006	SSW	20	8	1·90	Sea rough.
Akyab . .	·650	+·068	+·008	E	4	10	1·12	Distant lightning.
Chittagong .	·621	+·045	+·011	ESE	4	10	0·12	
Barisal . .	·581	−·017	+·020	ESE	4	8	0·14	
Calcutta .	·534	−·032	−·007	E	6	10	0·83	Raining.
Saugor Island	·472	−·076	−·061	E	9	10	1·28	Raining.
Balasore .	·472	−·076	−·047	NE	6	9	1·06	Showery.
Shortt's Island	·410	−·120	...	SE	14	8	0·26	
False Point .	·369	−·154	−·186	ENE	11	10	0·68	Showery.
Cuttack .	·425	−·117	−·120	NE	5	10	0·53	
Puri . .	·377	−·144	...	N	14	9	0·50	Cloudy.
Gopalpur .	·406	−·112	−·137	NNW	13		0·28	
Waltair .	·497	−·033	−·101	SW	12	10	1·92	Sea slight.
Cocanada .	·576	+·005	−·052	WSW	19	10	0·22	Sea very rough.
Masulipatam .	·648	−·010	−·008	WNW	21	10	1·36	Continuous rain.

The above shows that pressure had decreased rapidly at Gopalpur and at the Orissa stations and that the barometer read as much as 0·186″ below the normal at False Point. The cyclonic storm had advanced north-westward and the centre lay apparently in about Lat. 19°30′ N and Long. 86°20′ E. The winds were cyclonic around the storm, but the force was not strong and the rainfall remained comparatively light.

August 1st.—The barometer had fallen briskly over Southern and Western Bengal and had risen briskly over the Madras coast. The cyclonic storm had advanced north-westward and had apparently crossed the coast close to Balasore where the barometer had fallen 0·116″ and was 0·162″ below the normal. The following gives data for the storm area on this day.

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Gopalpur	29·479	+·073	—·067	SW	15	6	0·25	Showery.
Puri	·461	+·084	—	WSW	15	8	1·50	Sea slight
Cuttack	·427	+·002	—·117	WSW	5	10	2·98	Showery.
False Point	·398	+·029	—·150	WSW	8	10	2·10	Distant lightning.
Balasore	·356	—·116	—·162	WSW	10	9	0·38	
Saugor Island	·388	—·084	—·144	SSW	24	9	1·43	Sea slight.
Midnapore	·373	—·136	—·164	NE	6	10	0·74	Drizzling rain.
Calcutta	·450	—·084	—·080	ESE	12	10	0·84	Ditto.
Burdwan	·457	—·090	—·078	E	8	10	0·85	
Chaibassa	·447	—·045	—·059	Calm	1	8	0·60	Drizzling rain.
Ranchi	·473	—·065	—·067	ENE	15	10	0·48	Ditto.
Sambalpur	·443	—·047	—·137	WSW	8	10	1·51	Ditto.
Hazaribagh	·496	—·061	—·047	ENE	14	10	0·54	Showery.
Gaya	·495	—·069	—·032	ENE	12	7	—	
Bankura	·396	—·097	—	ENE	9	10	0·43	Raining.
Raniganj	·428	—·101	—	E	6	10	0·16	Drizzling rain.
Berhampore	·500	—·063	—·040	E	8	8	0·04	

The preceding data show that southerly winds were blowing strongly at the Sandheads and that moderately heavy rain was falling in Orissa to the south of the storm centre.

August 2nd.—The cyclonic storm had marched west-north-westward into the east of the North-Western Provinces and adjoining districts. The following gives data for the storm area:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Ranchi	29·467	—·006	—·068	SSE	9	10	1·27	Drizzling rain.
Hazaribagh	·472	—·024	—·067	ESE	12	10	0·58	Showery.
Daltonganj	·387	—·099	—	?	11	2	0·32	Ditto.
Gaya	·446	—·049	—·081	E	13	5	0·82	Ditto.
Dehri	·415	+·025	—·118	S	5	5	—	
Buxar	·441	—·072	—·079	E	7	9	0·11	Ditto.
Benares	·418	—·087	—·097	E	3	9	0·97	
Cawnpore	·457	—·068	—·041	E	3	3	—	
Allahabad	·413	—·100	—·100	E	9	5	0·26	Thunder-storm.
Nowgong	·452	—·075	—·070	E	1	7	—	
Sutna	·432	—·078	—·090	E	4	8	0·12	
Jubbulpore	·429	—·075	—·123	SW	6	10	0·41	Raining.

The preceding data show that the storm had filled up somewhat, the greatest deficiency of pressure reported having been 0·123″ at Jubbulpore. The storm had become shallow and diffused and the winds, which were remarkably easterly on the north side of the storm, were not strong.

August 3rd.—During the 24 hours preceding 8 A.M. of this date the cyclonic storm had hardly moved and was still shown over the east of the North-Western Provinces and the adjoining districts. The following gives data for the storm area:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches.	
Jubbulpore	29·408	—·021	?—·144	WSW	6	10	1·80	Drizzling rain.
Saugor	·449	—·032	—·120	WSW	3	10	1·48	Raining.
Nowgong	·401	—·051	—·124	NE	1	9	0·54	Showery.
Sutna	·380	—·052	—·140	N	7	8	0·34	Showery.
Allahabad	·379	—·034	—·130	ENE	12	6	0·25	Thunder storm.
Benares	·387	—·031	—·123	E	5	9	0.04	
Buxar	·414	—·027	—·101	E	7	5	...	
Cawnpore	·404	—·053	—·100	NE	4	7	...	
Lucknow	·410	—·054	—·097	Var.	6	9	...	
Jhansi	·405	—·057	—·111	ENE	2	4	0·36	Showery

It will be observed that the centre lay near Sutna where pressure was 0·140″ below the normal, consequently the storm had intensified slightly. At the same time the winds exhibited a fuller indraught towards the storm centre and were more distinctly cyclonic than on the previous day. There was no very heavy rain in the immediate neighbourhood of the disturbance.

August 4th.—The cyclonic storm had moved slowly west-north-westward and was shown over the central and western districts of the North-Western Provinces. The following gives data for the storm area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours			
	″	″	″				Inches.	
Sutna .	29·439	+·059	—·092	N	6	8	0·15	Showery.
Allahabad .	·449	+·070	—·065	E	7	10	0·45	Thunder-storm.
Benares .	·459	+·072	—·054	SE	5	6	0·24	
Cawnpore .	·411	+·007	—·098	E	4	8	...	
Lucknow .	·451	+·041	—·062	E	5	10	...	
Mainpuri .	·450	+·042	—·035	E	4	8	0·03	
Agra . .	·436	+·030	—·069	NE	6	8	...	
Jhansi .	·432	+·027	—·095	N	4	7	1·38	Continuous rain.
Nowgong .	·427	+·026	—·103	Calm.	2	10	0·71	Distant lightning.

The above shows that the barometer had risen all over the storm area and that the storm at the same time that it had moved west-north-westward had partially filled up. The geatest variation of pressure from the normal was reported from Nowgong where the barometer marked ·103″ below the normal. The rainfall was only moderate in the neighbourhood of the storm.

August 5th.—A further rise of pressure was reported throughout the storm area and the storm had almost filled up. This is shown below :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inch.	
Nowgong .	29·467	+·040	—·070	S	2	8	0·87	
Sutna .	·493	+·054	—·047	S	3	10	0·29	Raining.
Allahabad .	·478	+·029	—·043	E	5	9	0·06	Distant lightning.
Benares .	·490	+·031	—·032	ESE	2	7	...	Distant lightning.
Cawnpore .	·486	+·075	—·031	E	4	10	...	
Lucknow .	·485	+·034	—·036	SE	5	10	...	
Bahraich .	·506	+·038	—·005	E	5	3	...	
Mainpuri .	·473	+·023	—·021	E	4	8	...	
Bareilly .	·490	+·006	—·021	E	3	6	...	
Agra . .	·465	+·029	—·048	SE	6	9	...	
Jhansi	·451	+·019	—·083	E	2	8	0·85	

The above shows that pressure was only slightly in defect of the normal except at Jhansi and Nowgong where the barometer marked a moderate departure from the average. The cyclonic winds had at the same time died down and become variable, while the ainfall was unimportant.

August 6th.—On this day the depression apparently re-developed slightly, the barometer having fallen slightly across the head of the Peninsula. The following gives data :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches.	
Hoshangabad	29·540	—·007	?—·061	SW	8	10	0·74	Raining.
Jubbulpore.	·462	—·039	—·105	SW	3	9	...	
Saugor .	·465	—·039	—·107	ENE	2	5	0·60	
Nowgong .	·469	+·002	—·076	NE	3	8	0·16	Showery.
Sutna .	·468	—·025	—·075	W	3	8	0·15	Showery.
Jhansi .	·470	+·019	—·071	ENE	3	4	0·09	Showery.
Cawnpore .	·508	+·022	—·014	E	4	8	...	
Allahabad .	·482	+·004	—·048	ENE	12	8	...	Gale.
Benares .	·486	—·004	—·043	E	4	8	0·35	
Daltonganj.	·473	—·023	...	?	3	3	1·12	
Dehri .	·495	—·019	—·033	ESE	11	9	...	

The above shows that pressure was 0·107″ below the normal at Saugor but the winds remained light and vari-

able and the rainfall unimportant On the two following days, the 7th and 8th, a small residual depression was shown near Jhansi and Nowgong, but practically the depression ceased to exist as a definite storm on the 5th.

The following gives the position and rate of movement of the centre from the 28th July until the 2nd of August :—

DATE.	POSITION OF CENTRE AT 8 A.M.		Distance travelled during interval.	Average hourly rate of motion.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
28th July . . .	16 30	91 0	..	...
29th " . .	18 25	88 5	235	10
30th " . . .	19 15	87 15	85	4
31st " . . .	20 0	86 25	85	4
1st August . .	21 50	84 15	195	8
2nd " . .	24 0	80 45	282	12

Cyclonic storm of the 8th to 16th.—During the 7th and 8th pressure gave way over Burma and the Bay area and a depression apparently formed suddenly over the north-west of the Bay on the latter date. The following tables give the marine and coast observations recorded over and around the north of the Bay on the 7th :—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer corrected by Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Hambleton*.	11 58	90 08	...	WSW	6	Rainy, 8 P.M. Hard squalls of wind and rain.
S.S. *Rothenfels* .	12 44	94 50	29·618	W	5	
S.S. *Trentham Hall*.	13 31	85 04	·621	SW by S	5	Rough head sea and overcast, 4 A.M. rainy.
S.S. *Chyebassa* .	14 07	84 51	·697	SW	6	High sea and cloudy.
S.S. *St. Kilda* .	16 10	93 29	...	NW	6	Rough head sea and rainy.
S.S. *Sumatra* .	17 01	86 34	·588	WSW	5	Cloudy. Heavy sea.
S.S. *Pongola* .	17 32	86 47	·536	SW	7	High sea. Noon, heavy rain.
S.S. *Maria* .	18 39	87 12	...	SW	...	
S.S. *Clan Urquhart*.	18 56	86 07	·512	WSW	4	Showery.
S.S. *Mombassa*.	19 55	87 06	·534	SW	2	Rainy.
S.S. *Purulia* .	20 58	88 20	·515	SW	2	Fine.
S.S. *Kasara* .	Hooghly River.		·468	Var.	2	Rainy.
S.S. *Chanda* .	Calcutta.		·525	...	...	4 P.M. fine.

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Moulmein .	29·660	—·079	—·112	...	1	8	0 02	
Diamond Island.	·671	—·042	—·073	SSW	6	8	0·36	Showery.
Bassein .	·680	—·049	—·059	SE	5	8	0·64	
Akyab .	·628	—·052	—·050	SSE	2	4	0·20	
Chittagong.	·626	—·049	—·014	SSE	7	6	...	
Calcutta .	·570	—·014	+·010	E S	4	8	0·35	Showery.
Barisal .	·597	—·041	+·019	SSE	3	5	...	
Saugor Island.	·540	—·030	—·022	ENE	7	8	0·39	Sea slight.
Balasore .	·541	—·017	—·006	Calm	2	7	0·03	
Shortt's Island.								
False Point	·549	—·003	—·018	W	7	1	3·44	Heavy rain.
Cuttack .	·540	—·002	—·031	Calm	2	10	1·30	Showery.
Puri . .	·531	—·020	...	SSW	8	10	0·66	Sea slight.
Gopalpur .	·532	+·004	—·022	WSW	18	8	...	
Waltair .	·574	—·010	—·040	SW	12	10	0·06	
Cocanada .	·589	—·026	—·050	NW	7	10	0·36	
Masulipatam	·632	—·022	—·046	WNW	10	10	...	
Nellore .	·644	—·014	—·041	SSW	10	6	...	

The above data show that moderate south-westerly winds prevailed over the greater part of the Bay and at most of the Bay ports at 8 A.M. on the 7th and that the only indications of cyclonic action at this time were the east-north-east wind at Saugor Island and the rainfall on board the S.S. *Clan Urquhart* in Lat. 18°56″ N. and Long. 86° 07″ E. off the North Circars coast.

August 8th.—The barometer had fallen briskly on the Circars coast and a cyclonic storm of slight intensity had suddenly appeared. The following gives marine data for this day :—

NAME OF VESSEL.	8 A.M. POSITION.		Barometer corrected by Calcutta Office.	WIND.		WEATHER.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Nairung* .	10 14	96 04	29·629	SW	8	Terrific squalls.
S.S. *Hillcrag* .	14 44	94 40	508	W	5	Squally.
S.S. *Scotia* .	15 00	85 19	·805	W	5	Following sea and small rain.
S.S. *Rothenfels* .	16 08	96 04	...	Var.	2 to 3	
S.S. *Avala* .	19 10	87 22	·483	SW	1	Heavy swell and cloudy.

Name of Vessel.	8 A.M. Position.		Barometer as corrected by Calcutta Office.	Wind.		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Chanda* .	19 31	89 52	·471	SSE	2	Moderate head swell and fine.
S.S. *Apollo* .	19 36	87 21	·390	N	3	
S.S. *Pongola* .	20 31	88 01	·493	N	2	Fine.
S.S. *Maria* .	Saugor Island.		...	Var.	...	
S.S. *Sumatra* .	Mud Point.		·510	ENE	2	Cloudy.
S.S. *Clan Urquhart.*	Garden Reach.		...	NW	4	Fine. 4 A.M. showery.

The above data show that the wind had drawn into north-east and north over the head of the Bay but was light in force. The centre of the storm was apparently in Lat. 19° N. and Long. 87° 10′ E. and the S.S. *Avala* reported a south-west wind and a rough sea. To the south of Lat. 16° N. the wind was westerly.

The following table gives 8 A.M. data for the ports around the north of the Bay:—

Station.	Pressure.			Wind.				Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	″	″	″				Inches	
Diamond Island.	29·627	—·044	—·123	WSW	9	9	2·69	Drizzling.
Bassein .	·611	—·069	—·136	Calm	5	8	0·07	
Akyab .	·580	—·048	—·107	ESE	2	5	0·06	
Chittagong	·569	—·057	—·077	NE	4	3	0·19	Distant lightning.
Barisal .	·572	—·025	—·014	NE	3	5	0·19	
Calcutta .	·545	—·025	—·021	ENE	5	8	0·02	
Saugor Island.	·508	—·032	—·061	ENE	9	5	0·28	Showery.
Balasore .	·512	—·029	—·042	NE	1	5	0·06	
False Point	·482	—·067	—·089	N	3	7	0·63	Showery.
Cuttack .	·495	—·045	—·082	Calm	1	7	0·05	
Puri . .	·496	—·035	...	Calm	4	10	2·06	Overcast.
Gopalpur .	·489	—·043	—·068?	NNW	8	4	0·03	
Waltair .	·501	—·073	—·116	SW	10	10	...	Sea slight.
Cocanada .	·541	—·048	—·103	WSW	7	10	0·58	
Masulipatam	·592	—·046	—·090	WNW	11	10	0·13	
Nellore .	·619	—·025	—·068	WNW	11	10	...	
Madras .	·647	—·031	—·083	WSW	9	10	0·28	Sea smooth.

Beyond the brisk fall of the barometer at Chittagong, False Point and Waltair, the above data exhibited few changes of importance. The winds showed an indraught towards the centre of the north of the Bay, but the force was low and there was no heavy rainfall.

August 9th.—During the 24 hours preceding 8 A.M. of this date the changes had been slight and unimportant. 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. *Nairung* .	13 49	93 41	29·579	SW	6	Rough sea. Overcast. Noon, rain squalls.
S.S. *Hillcrag* .	14 04	92 41	·518	SW	6	Overcast. Midnight, squalls with heavy rain.
S.S. *Chanda* .	16 33	93 05	·491	SW	4	Moderate sea. Fine, 4 P.M., squalls with rain.
S.S. *Avala* .	17 02	86 34	...	W	7	Overcast. 4 P.M. terrific rain squalls.
S.S. *Scotia* .	17 40	86 14	·665	W	6	Passing squalls and rain.
S.S. *Apollo* .	17 42	86 32	·380	W	5	Fresh W. sea.
S.S. *Maharaja* .	Hooghly river.		·506	...	...	Fine and clear.

The above shows that there had been no change in the position of the centre of disturbance, but there had been some change in the winds reported, as on board the *Avala*, *Scotia* and *Apollo* the direction had shifted to west. The *Scotia* reported squalls and rain.

The following gives the 8 A.M. observations at the shore observatories:—

Station.	Pressure.			Wind.				Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	
	″		″				Inches	
Moulmein .	29·687	+·066	—·102	...	3	10	3·66	
Rangoon .	·636	+·036	—·131	SSW	6	10	0·59	Showery.
Diamond Island.	·626	—·001	—·131	WSW	13	10	0·41	Sea slight.
Bassein .	·612	+·001	—·142	SW	4	9	0·53	
Akyab .	·555	—·025	—·145	E	2	10	0·32	
Chittagong	·564	—·005	—·037	N	3	6	...	
Barisal .	·566	—·006	—·035	NNE	3	4	0·03	
Calcutta .	·553	+·008	—·028	ENE	5	7	0·27	Showery.
Saugor Island.	·525	+·017	—·060	E N	12	8	0·18	Sea slight.
Balasore .	·542	+·030	—·028	ENE	3	7	0·60	Showery.

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inch.	
False Point	29·487	+·005	—·095	ENE	6	8	...	
Cuttack .	·498	+·003	—·091	ENE	1	7	0·65	Showery.
Puri . .	·488	—·008	...	NNE	4	10	...	Overcast.
Gopalpur .	·483	—·006	—·080	NNW	7	6	0·04	
Waltair .	·495	—·006	—·132	SW	11	10	...	Sea slight.
Cocanada .	·520	—·021	—·131	WSW	8	10	0·04	Do.
Masulipatam	·594	+·002	—·092	WNW	8	10	0·19	Distant lightning.
Nellore .	·630	+·011	—·064	WNW	11	10	...	

The above data show that the changes had been slight and unimportant around the Bay.

August 10th.—The cyclonic storm had concentrated and pressure had given way slightly to briskly over the north-west of the Bay. The following gives the 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. *Hillcrag* .	12 53	91 11	29·578	SW	6	
S.S. *Clan Murray*	12 56	84 43	·704	SW	2	Moderate sea and overcast, 4 P.M. passing rain squalls.
S.S *Fonar* .	Madras		·673	...	...	Midnight, fine.
S.S. *Avala* .	14 04	85 41	·583	WNW	7	Squalls of terrific force and constant heavy rain.
S.S. *Stolsenfels* .	14 42	82 00	·646	W	3 to 4	
S.S. *City of Venice.*	15 40	86 00	·621	SW	6	High sea and heavy rain.
S.S. *Chanda* .	15 46	95 52	·643	NNE	4	Fine.
S.S. *Apollo* .	16 01	85 30	·450	W	6 to 7	High sea.
S.S. *Ethiopia* .	Rangoon		·750	...	...	Midnight, overcast.
S.S. *Shahzada* .	Rangoon		·852	...	...	Noon, cloudy.
S.S. *Nairung* .	17 09	91 19	·490	SW	6	Heavy rain squalls.
S.S. *Foreric* .	18 08	86 45*	·430	S	5	Heavy swell, and cloudy.
S.S. *Maharaja* .	19 54	89 21	·680	ESE	3	Fine and clear.
S.S. *Scotia* .	20 18	88 46	·625	Var.	4	Confused swell, and cloudy.
S.S. *Malda* .	Calcutta		·471	...	...	4 P.M. squally with rain.

* Noon position.

The above shows that strong westerly to south-westerly winds prevailed over the south and centre of the Bay, but that the wind drew into south on board the *Foreric* in Lat. 18° 08′ N. and Long. 86° 45′ E. and into east-south-east on board the *Maharaja* in Lat. 19° 54′ N. and Long. 89° 21′E. The weather was squally and the *Avala*, *City of Venice*, and *Nairung* recorded heavy to very heavy rain.

The following gives the 8 A.M. observations at the shore observatories :—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inches	
Diamond Island.	29·697	+·071	—·065	SSW	15	7	0·59	Showery.
Bassein .	·696	+·084	—·065	SE	6	9	0·91	
Akyab .	·600	+·045	—·108	S	5	10	1·67	Raining.
Chittagong.	·564	0	—·108	NE	3	9	0·10	
Barisal .	·548	—·018	—·065	SSE	3	6	...	
Saugor Island.	·452	—·073	—·146	NE	12	9	0·01	
Balasore .	·481	—·061	—·102	NE	5	5	0·05	
False Point	·445	—·042	—·147	N	11	9	2·73	Showery.
Cuttack .	.482	—·016	—·121	Calm	3	10	0·82	Do.
Puri . .	·554	+·007	—·037	ENE	8	10	0·07	Overcast.
Gopalpur .	·480	—·003	—·092?	NW	9	8	0·18	Drizzling.
Waltair .	·523	+·028	—·114	SW	10	10	0·07	Sea slight.
Cocanada .	·555	+·035	—·104	SW	9	10	0·19	
Masulipatam	·613	+·019	—·078	WNW	14	10	...	Gale.

Pressure had increased over Burma and the south of the Bay, but had decreased in the north-west and at Saugor Island and False Point the variation of pressure from the normal was about—0·146″. The winds were cyclonic and were increasing in strength, while heavy rain had commenced to fall at False Point.

August 11th.—Pressure had given way briskly to rapidly over Orissa and the north-west of the Bay, and the storm which was crossing the Orissa coast between Puri and False Point had intensified considerably. The following gives the 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. *Apollo* .	13 44	83 20	29·580	W	7 to 8	High cross sea.
S.S. *Fonar* .	14 08	81 59	·653	SW	2	Cloudy.
S.S. *Shahzada* .	15 50	94 20	·769	WSW	3	Overcast with showers.
S.S. *Ethiopia* .	16 19	93 40	·710	WSW	5	Heavy swell. Noon, occasional rain.

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Foreric* .	16 23	85 55	·530	WSW	8	High sea. Fierce squalls of wind and rain.
S.S. *Clan Murray*	16 33	86 13	·604	WNW	6	High sea. Heavy rain squalls.
S.S. *Stolzenfels*.	17 03	84 33	·646	W	3 to 4	
S.S. *Maharaja* .	17 44	91 49	·609	SW by S	...	Confused sea. Frequent heavy rain squalls.
S.S. *City of Venice*	19 04	87 37	·511	SW	5	High sea. Cloudy, 4 P.M. heavy rain squalls.
S.S. *Malda* .	19 24	90 15	·479	SSW	7	Squally. 4 P.M. heavy squalls of wind and rain.
S.S. *Nairung* .	20 15	88 05	·418	SSW	5	Clear. Noon, continual rain squalls.

The winds were west-south-westerly over the centre of the Bay but drew into south-south-west in the north. The force of the wind was light in the immediate neighbourhood of the storm but was strong further to the southward and the *Foreric* in Lat. 16° 23′ N. and Long. 85°55′E. and the *Apollo* in Lat. 13°44′N and Long. 83°20′E. reported westerly gales. The weather was squally with heavy rain.

The following gives the shore observations around the north of the Bay on this date :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Akyab .	29·686	+·086	—·025	S	6	10	4·54	Drizzling.
Chittagong .	·637	+·073	—·038	SSE	13	6	...	
Barisal .	·592	+·044	—·025	SSE	8	10	0·45	
Calcutta .	·515	+·007	—·083	E	10	9	0·41	Showery.
Saugor Island.	·450	—·002	—·152	ESE	14	10	0·89	Sea rough.
Balasore .	·419	—·062	—·169	ENE	5	8	1·40	Showery.
Shortt's Island.	...	...	...	...	...	..	...	
False Point.	·350	—·095	—·249	NW	7	9	0·60	Showery.
Cuttack .	·367	—·115	—·241	NE	1	8	2·09	Do.
Puri . .	·392	—·097	...	Calm	12	10	5·37	Overcast with rain.
Gopalpur .	·426	—·054	—·151	SW	13	10	4·53	Sea rough.
Waltair .	·499	—·024	—·142	SW	10	10	0·31	Sea slight.
Cocanada	·560	+·005	—·102	WSW	12	10	0·35	Sea rough.
Masulipatam	·647	+·034	—·045	WNW	11	10	0·93	

The most important feature was the rapid fall of the barometer at Cuttack. At False Point pressure was 0·249″ below the normal with a north-west wind. The storm crossed the coast soon after 8 A.M. travelling quickly in a westerly direction.

August 12th.—Pressure had recovered briskly to rapidly in Orissa and had decreased briskly to rapidly over the Central Provinces, the centre of the storm having reached the neighbourhood of Raipur. 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.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Waltair .	29·450	—·049	—·189	SW	20	10	0·28	Sea slight.
Gopalpur .	·426	0	—·157?	SW	35	6	0·63	Gale.
Puri .	·439	+·047	...	SW	23	7	0·82	Sea very rough.
Cuttack .	·437	+·060	—·170	Calm	4	9	1·09	Showery.
False Point.	·476	+·126	—·126	S	16	9	2·05	Continuous rain.
Balasore .	·509	+·090	—·078	SSW	11	8	0·67	
Saugor Island.	·522	+·072	—·080	ESE	22	8	0·40	Showery.
Chaibassa	·448	+·002	—·092	ESE	7	9	0·13	
Ranchi .	·490	—·010	—·093	...	20	9	0·84	Showery.
Hazaribagh	·508	—·022	—·089	E	18	10	0·37	Gale.
Benares .	·504	—·053	—·061	ESE	5	6	0·11	
Allahabad .	·501	—·052	—·067	ENE	14	6	...	
Sutna .	·483	—·072	—·098	NE	8	8	0·06	
Jubbulpore	·419	—·125	—·179	NNE	6	6	5·78	Continuous rain.
Seoni . .	·450	—·106	—·167	NNE	4	10	0·30	
Nagpur .	·473	—·102	—·169	WNW	17	10	0·72	Drizzling.
Chanda	·523	—·092	—·159	W	3	10	6·24	Raining.
Sambalpur .	393	—·063	—·217	ESE	7	10	0·56	Showery.
Raipur .	·348	—·164	—·266	NE	13	10	0·88	Gale.

The above shows that the storm had reached the east of the Central Provinces where pressure had fallen over 0·10″ and where it was as much as 0·266″ below the normal. The cyclonic circulation around the storm was strong and the following heavy falls of rain during the previous 24

hours had occurred in Orissa and the Central Provinces :—

Province or Division.	District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 12th August.
			Inches.
Orissa	Cuttack	Jagatsingpur	3·00
	Balasore	Akhyapada	2·38
	Do.	Soro	2·15
	Cuttack	False Point	2·05
	Balasore	Bhadrak	2·03
Central Provinces	Raipur	Dhamtari	10·26
	Chanda	Armori	9·05
	Do.	Chanda	6·24
	Jubbulpore	Jubbulpore	5·78
	Chanda	Mul	3·95
	Narsinghpur	Mohpani	3·76

August 13th.—The cyclonic storm had continued to advance in a westerly direction and was central over the region represented by the stations of Jubbulpore, Seoni, Hoshangabad, and Nagpur. The following gives 8 A.M. data for the storm area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Sambalpur	29·518	+·125	—·096	SSW	11	10	0·12	Showery.
Raipur	·431	+·083	—·189	...	12	10	0·62	Raining.
Nagpur	·384	—·089	—·256	Calm	21	10	7·83	Heavy rain.
Chanda	·480	—·043	—·200	WSW	7	10	5·01	Raining.
Amraoti	·416	—·115	—·211	WSW	24	10	3·78	Do.
Seoni	·374	—·076	—·241	ESE	4	10	0·64	Drizzling.
Jubbulpore	·351	—·068	—·249	NNE	8	8	0·10	
Hoshangabad.	·397	—·128	—·232	NE	4	10	2·06	Raining.
Saugor	·410	—·107	—·195	ENE	5	7	1·61	
Sutna	·403	—·080	—·174	E	10	5	...	Strong wind.
Nowgong	·426	—·101	—·158	E	2	9	0·06	
Jhansi	·452	—·083	—·133	ENE	3	5	0·01	Showery.
Cawnpore	·468	—·057	—·080	E	5	10	...	
Allahabad	·442	—·059	—·126	ENE	18	10	...	
Benares	·467	—·037	—·098	SE	6	10	0·19	

The barometer had fallen rapidly over the centre and west of the Central Provinces, Central India and Gujarat, while it had risen rapidly over the east of the Central Provinces, Orissa, and Ganjam. The centre of the storm apparently lay near Nagpur where the barometer marked 0·256″ below the normal. The weather was very stormy and disturbed over the Central Provinces on this day, and the observer at Nagpur gives the following account of the weather at that station :—

7 A.M.—Dark gloomy weather with drizzling rain; wind calm.
8 A.M.—Dark gloomy weather with torrents of rain; wind calm.
9 A.M.—Dark gloomy weather with exceedingly heavy torrential rain; wind light at intervals.
10 A.M.—Dark gloomy weather with blinding torrents of rain; rainfall decreasing after 9·45 A.M.; wind changed to ESE but light.
11 A.M.—Dark gloomy weather with drizzling rain at intervals; wind shifted and blowing rather violently.
12 Noon.—Overcast with drizzling rain; wind fallen suddenly at 11·20 A.M., and calm lasted over 20 minutes when direction shifted and few hard squalls were experienced.
1 P.M.—Overcast with occasional drizzling rain; wind blowing in hard squalls.
2 P.M.—Weather squally and drizzling rain; wind blowing rather strong.

The rainfall was heavy all over the south of the Central Provinces. The following gives the most noteworthy falls of rain for the 24 hours ending at 8 A.M. on the 13th :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M of 13th August 1900.
		Inches.
Nagpur	Umrer	10·30
Chanda	Brahmapuri	8·39
Nagpur	Nagpur	7·83
Chanda	Chimur	7·00
Wardha	Wardha	6·40
Chanda	Chanda	5·01
Bhandara	Bhandara	4·78
Hoshangabad	Harda	4·75
Wardha	Hinganghat	4·57
Betul	Betul (Badnur)	4·54
Chhindwara	Sausar	4·45
Betul	Multai	4·32
Nagpur	Katol	4·25
Chanda	Armori	4·09

August 14th.—Pressure had recovered briskly to rapidly over the Central Provinces, while it had decreased over the south of Rajputana. The cyclonic storm had advanced

in a west-north-west direction and was shown as a diffused depression over Central India and the south of Rajputana. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Saugor	29·467	+·057	−·146	SSW	3	9	0·10	
Nowgong	·429	+·003	−·161	E	2	10	0·69	Showery.
Jhansi	·418	−·034	−·173	E	6	8	0·08	Do.
Agra	·448	−·030	−·121	SE	8	7	0·01	
Sambhar	·478	−·028	−·096	NE	9	6	...	
Ajmer	·470	−·043	−·137	NE	6	8	0·05	
Kotah	...	−·049	...	NNE	7	9	...	
Pachpadra	·427	−·055	...	E	5	5	...	
Deesa	·438	−·053	−·193	W	8	10	4·52	Thunder storm.
Neemuch	...	...	...	NE	8	9	0·15	
Indore	·477	+·021	−·172	Calm	2	10	1·06	Showery.

The storm had apparently partly filled up and the centre lay, so far as can be judged, near Neemuch, northerly winds having been reported over the west of Central India and the south of Rajputana. The indraught into the storm area was causing a strong burst of monsoon winds over the north of the Arabian Sea, and very heavy rain was reported over the Central Provinces and the north of the Bombay Presidency. The following gives some of the more noteworthy falls :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 14th August 1900.
		Inches.
Nagpur	Nagpur	4·73
Nimar	Burhanpur	3·32
Kathiawar	Veraval	11·35
	Vankaner	11·00
Surat Agency	Dharampur	8·68
	Bansda	8·32
Mahi Kantha	Bayad	7·38
Surat	Pardi	6·57
Khandesh	Navapur	6·54
Broach	Hansot	6·33
Rewa Kantha	Chhota Udepur	6·24
Surat	Valod	6·16
	Balsar	6·09
Kathiawar	Jasdan	6·05
Broach	Amod	5·70
Nasik	Peint	5·34
Broach	Ilau	5·10

August 15th.—The storm had apparently drifted to the north-westward and was shown over the eastern and central States of Rajputana. The following gives data for 8 A.M. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Neemuch	...	...	...	WSW	12	10	0·07	
Deesa	29·471	+·033	−·166	NW	12	10	0·92	Distant lightning.
Kotah	...	+·065	...	SW	6	9	2·02	
Pachpadra	·439	+·012	...	W	5	10	0·19	Rainy.
Jodhpur	·437	−·011	...	SW	5	10	...	Distant lightning.
Saugor	·591	+·124	−·021	SSW	3	6	0·16	
Jubbulpore	·590	+·091	−·020	SSE	5	6	0·10	
Ajmer	·431	−·039	−·179	NE	5	9	0·20	
Sambhar	·435	−·043	−·147	E	8	10	0·19	
Jaipur	·449	−·025	−·158	Calm	6	10	0·61	Drizzling.
Bikaner	·436	−·023	−·150?	NE	17	6	...	
Sirsa	·486	−·005	−·059	NE	5	3	...	
Delhi	·482	−·034	−·082	E	13	10	0·15	
Agra	·491	+·043	−·085	SE	5	10	0·22	

The preceding data show a further brisk to rapid barometric recovery over the central parts of the country, and a slight decrease over Rajputana and the east of the Punjab. The depression, as mentioned above, had advanced to Eastern Rajputana, and the barometer at Ajmer showed a variation of—0·179″ from the normal. Fresh to strong cyclonic winds prevailed around the storm and heavy rain was received over Gujarat and Rajputana. The following gives rainfall data :—

PROVINCE OR DIVISION.	DISTRICT.	Station.	Rainfall during 24 hours preceding 8 A.M. of 15th August.
			Inches.
RAJPUTANA	JODHPUR	Parbatsar	4·50
	AJMER MERWARA	Masuda	3·87
	UDAIPUR	Udaipur	3·82
	AJMER-MERWARA	Pisangan	3·53
	"	Dawer	3·20
	JODHPUR	Jodhpur	3·08
	AJMER-MERWARA	Jawaja	3·00
	"	Jassakhera	2·90
	"	Bhinal	2·79
	"	Beawar	2·70
	UDAIPUR	Katra	2·25
	SHAHPURA	Ura	2·14
	BIKANER	Desuri	2·04
GUJARAT	SURAT AGENCY	Bansda	6·50
	KAIRA	Borsad	6·50
	PANCH MAHALS	Kalol	5·60
	BROACH	Vagra	5·50
	KAIRA	Anand	5·20
	BROACH	Jambusar	4·86
	"	Amod	4·46
	"	Broach	4·42
	SURAT AGENCY	Dharampur	4·17

August 16th.—The storm was advancing northward so that while the barometer was falling briskly in the Punjab it was rising briskly to rapidly in North Bombay. The following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Ajmer	29·439	+·008	—·182	SE	5	10	2·10	Distant lightning
Sambhar	·408	—·027	—·181	S	6	10	1·23	Continuous rain.
Jaipur	·447	—·002	—·162	SE	3	10	0·58	Showery.
Bikaner	·440	+·004	—·159	ENE	12	6	0·16	
Sirsa	·417	—·069	—·139	SE	8	5	0·93	
Ludhiana	·443	—·068	—·125	SE	5	10	3·05	Raining.
Lahore	·462	—·107	—·092	N	3	10	2·42	Ditto.
Montgomery	·423	—·141	—·115	NE	9	4	...	
Khushab	·445	—·114	—·080	ENE	6	6	...	
Dera Ismail Khan.	·451	—·090	—·079	Calm	2	9	0·10	
Mooltan	·452	—·078	—·077	Calm	2	6	...	
Jacobabad	·415	—·090	—·096	E	2	0	...	
Bhuj	·573	+·001	—·051	WSW	22	8	0·03	Strong wind.
Ahmedabad	·634	+·125	—·005?	SW	5	10	2·03	Showery.

The storm had, to a great extent, become merged in the seasonal low pressure area over North-West India, but there was still a large amount of ascensional movement and much heavy rain over North-West India. The following gives some of the more noteworthy falls :—

PROVINCE OR DIVISION.	District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 16th August.
			Inches.
NORTH-WESTERN PROVINCES AND OUDH.	Muzaffarnagar	Bhainswal	6·00
	Azamgarh	Mahul	2·87
	Basti	Basti	2·40
	Azamgarh	Deogaon	2·20
	Naini Tal	Naini Tal	2·10

Province or Division.	District.	Station.	Raintall during 24 hours preceding 8 A.M. of 16th August.
			Inches.
Punjab	Umballa	Rupar	7·56
	Kangra	Dharmsala	6·75
	Gurdaspur	Dalhousie	6·65
	Umballa	Kasauli	5·94
	Amritsar	Ajnala	5·92
	Lahore	Meean Meer	5·60
	Amritsar	Buchar	5·59
	Kangra	Kangra	5·10
	Ferozepore	Ferozepore Sadr	4·71
	Hoshiarpur	Hoshiarpur	4·65
	Jullundur	Nawashahr	4·56
	Do.	Jullundur	4·53
	Patiala state	Barthala	4·22
	Ferozepore	Ferozepore City	4·20
	Hoshiarpur	Sadr station	4·14
	Kangra	Hamirpur	4·12
	Patiala state	Lehal	4·01
Rajputana	Ajmer	Taragarh	3·57
	Sirohi	Mount Abu	2·99
	Ajmer	Pisangan	2·94
	Do.	Todgarh	2·80
	Jaipur	Sikar	2·76
	Jodhpur	Nawa	2·68
Gujarat	Ahmedabad	Parantij	3·02
	Kaira	Mehmadabad	2·66
	Ahmedabad	Ahmedabad	2·45
	Surat Agency	Bansda	2·10
	Panch Mahals	Kalol	2·07

By the 17th the storm had practically disappeared.

The following gives the position and rate of movement of the centre from the 8th until the 14th of August :—

Date.	Position of centre at 8 A.M.		Distance travelled during interval.	Average hourly rate of motion.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
8th August	19 15	87 40	...	...
9th ,,	19 45	87 25	45	2
10th ,,	20 25	87 0	55	2
11th ,,	20 45	86 25	55	2
12th ,,	21 45	82 10	290	12
13th ,,	22 30	78 50	225	9
14th ,,	24 15	75 15	278	12

The charts of barometric anomalies of the 14th and 15th showed that pressure was lower than usual over Burma and the east of the Bay on these two days, while a well marked ridge of higher pressure than usual lay over West Bengal, the west of the Bay and the east of the Peninsula, dividing the Burma low pressure area from the main low pressure area over the centre and north-west of India. On the 15th the low pressure area in the east concentrated into a cyclonic storm lying off the Arakan coast.

Cyclonic storm of the 15th to the 21st.—Pressure was decreasing slowly over Burma, Bengal and the greater part of the Bay on the 15th and a smallish depression was shown near Akyab, where the barometer marked 0·152″ below the normal. 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. *Gaekwar*	13 06	84 46	...	SSW	5	
S.S. *Adana*	14 17	85 05	29·680	SW	4	Moderate swell, fine.
S.S. *Africa*	15 34	94 11	·710	SW	4	Moderate sea. Cloudy; midnight, passing rain squalls.
S.S. *Senator*	15 46	85 59	...	WSW	4	Moderate, west south-west swell. Cloudy.
S.S. *Catherine Apcar.*	16 02	91 55	·705	WSW	5	Moderate sea. Noon, heavy rain squalls.
S.S. *Dragoman*	16 14	86 24	·664	SW	5	High head sea.
S.S. *Kistna*	Rangoon		·710	...	...	Noon, squally.
S.S. *Jubeda*	16 55	86 24	·644	SSW	5	Hazy.
S.S. *Foreland*	18 42	85 38	·610	SW	5	
S.S. *Goorkha*	19 00	85 52	·692	SW by S	4	Moderate sea. Fine. Noon. rain.
S.S. *Purulia*	19 17	90 06	·573	WSW	6	High sea. Continuous rain squalls.
S.S. *Mahawk*	19 29	87 54	...	W	4	Moderate sea and overcast.
S.S. *Ameer*	20 36	87 58	·575	NW	2	Overcast; 4 A.M., light rain.
S.S. *Shahzada.*	21 10	89 29	...	WNW	4	Continuous rain.
S.S. *Commilla*	Chittagong		·510	...	...	8 P.M. occasional rain.

The above shows that moderate to strong west-south-west to south-west winds prevailed over the greater part of the Bay, but on board the S.S. *Ameer* and the S.S. *Shahzada*, in the north of the Bay, the direction had drawn into north-west and west-north-west under the influence of the storm off the Arakan coast. There was a good deal of sea running and the S.S. *Purulia* and the S.S. *Catherine Apcar* reported heavy rain squalls.

The following gives 8 A.M. observations for the ports around the north of the Bay :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average velocity in miles hourly during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Diamond Island	29·723	—·008	—·033	WSW	15	10	0·16	
Bassein . .	·710	—·022	—·041	Calm	5	10	3·23	Drizzling rain.
Akyab . .	·547	—·091	—·152	ESE	3	10	0·74	Ditto.
Chittagong .	·589	—·029	—·082	NE	4	9	...	
Barisal . .	·580	—·038	—·038	NNW	2	7	...	
Calcutta .	·567	—·043	—·030	W	2	9	0·44	Showery.
Saugor Island	·577	—·036	—·023	WNW	10	10	...	Sea slight.
Balasore .	·619	—·002	+·034	Calm	2	8	0·40	
False Point .	·624	—·005	+·021	W	7	10	...	
Cuttack .	·635	+·003	+·028	Calm	1	10	0·03	
Puri . .	·621	—·010	...	WSW	12	5	...	
Gopalpur .	·629	—·011	+·036	SW	19	5	...	
Waltair .	·664	+·007	+·031	SW	17	3	...	Sea smooth.
Cocanada .	·702	+·028	+·054	WSW	9	1	...	Ditto.
Masulipatam .	·763	+·053	+·081	WNW	12	6	...	

The weather was quiet and the barometric changes small except at Akyab where the barometer had fallen 0·091" to 0·152" below the normal. An irregular cyclonic circulation of the winds was shown, but the force was low and the rainfall insignificant generally.

August 16th.—The low pressure area had passed out into the north of the Bay. The following gives the marine data :—

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. *Ningchow* .	12 50	84 38	29·740	SW	4	Moderate sea. Heavy rain squalls.
S.S. *Hermod* .	12 57	91 30	...	WSW	3	
S.S. *Dragoman* .	13 09	84 54	·744	SSW	4	Moderate head sea. Noon, heavy rain squalls.
S.S. *Deepdale* .	14 20	93 26	·618	SW	5	High sea. Overcast 4 P.M. terrific squalls.
S.S. *Rajah* . .	15 05	85 29	·670	WSW	2	Fine and clear. Midnight, light rain.
S.S. *Kistna* .	15 40	94 28	29·684	WSW	5	High sea. Cloudy, 4 P.M., heavy rain squalls and heavy thunder.
S.S. *Purulia* .	16 24	93 16	·563	WSW	7	High sea. Heavy passing rain squalls.
S.S. *Foreland* .	16 32	83 30	·650	SW	4	
S.S. *Adana* .	17 55	86 33	·560	W	5	Fresh sea. Continuous light rain.
S.S. *Catherine Apcar.*	18 42	90 57	·475	W	6	High sea. Heavy squalls.
S.S. *Jubeda* .	19 52	87 45	·490	W	6	Rising sea. Thick rain.
S.S. *Senator* .	19 52	87 38	...	WNW	5	Rough sea. Heavy rain squalls.
S.S. *Commilla* .	20 42	92 24	·439	SSE	6	Continuous light rain.
S.S. *Goorkha* .	Diamond Harbour.*		·592	W	5	Overcast 4 P.M., frequent rain squalls.

* Noon position.

The preceding data show rough, squally, rainy weather all over the north of the Bay with a partial cyclonic circulation of the winds. All over the centre and south of the Bay the winds were westerly and west-south-westerly.

The following gives the shore observations 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"			10	Inches.	
Akyab .	29·515	—·032	—·182	ENE	6	4	0·80	Showery.
Chittagong .	·516	—·073	—·151	NE	3	10	0·60	
Jessore .	·504	—·073	—·107	Calm	0	4	0·16	
Barisal .	·501	—·079	—·117	ENE	2	8	1·11	
Calcutta .	·508	—·059	—·090	N	2	9	...	
Saugor Island.	·514	—·063	—·084	N	12	6	0·04	Sea smooth.
Balasore .	·545	—·074	—·038	WSW	2		0·03	
False Point.	·577	—·047	—·024	W	10	10	0·08	Distant lightning.
Cuttack .	·594	—·041	—·008	NW	1	10	0·63	Showery.
Puri . .	·605	—·016	...	W	5	10	0·40	Overcast with rain.
Gopalpur .	·606	—·023	+·007	SW	8	6	0·16	
Waltair .	·641	—·023	+·013	SW	12	4	...	Sea smooth.
Cocanada .	·680	—·022	+·036	W	11	6	...	
Masulipatam	·726	—·037	+·045	WNW	13	2	...	Gale.

Pressure was giving way all around the Bay, but the changes except in Bengal were small and unimportant.

The winds exhibited a cyclonic circulation around a centre apparently in about Lat. 20°N. and Long. 91°E., but there was no strength in the winds at any of the stations. The south-westerly winds in the south were causing heavy rain in Lower Burma, but elsewhere the rainfall was unimportant.

August 17th.—The cyclonic storm over the Bay had apparently advanced slowly to the north-westward or northward, but still lay over the head 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. *Sheikh*	12 54	82 23	29·739	WSW	6	Slight sea; overcast.
S.S. *Unity*	12 57	90 37	...	SW	4	
S.S. *Khandalla.*	Madras.		·835	...	...	Rainy.
S.S. *Foreland*	14 05	81 40	·720	W	4	4 A.M., squally with rain.
S.S. *Hermod*	14 39	94 09	...	WSW	3	
S.S. *Ningchow.*	15 17	85 42	·620	SW	5	Moderate sea; cloudy. Noon, rain.
S.S. *Purulia*	15 58	96 00	·653	SW	2	Fine. Noon, passing rain squalls; 4 P.M., squally.
S.S. *Malda*	Rangoon.		·699	...	...	
S.S. *Deepdale*	16 54	91 51	·528	SW	6	Beam sea. Terrific squalls.
S.S. *Rajah*	18 08	86 47	·480	W	3	Squally, with rain.
S.S. *Catherine Apcar.*	19 03	89 30	·405	SW	8	High sea. Thick rain.
S.S. *Kistna*	Kyouk Phyoo.		·561	WSW	5	Heavy sea; cloudy. 4 A.M., drizzling rain.
S.S. *Adana*	19 44	87 55	·260	SW	9	Heavy sea. Continuous rain; 4 P.M., terrific squalls.
S.S. *Commilla*	Akyab.		·551	...	...	Noon, occasional squalls.
S.S. *Ethiopia*	Calcutta.		·411	...	...	4 P.M., occasional showers.

The above shows that south-westerly winds and gales prevailed throughout the Bay with squally rough weather. There were no vessels to the north of Lat. 20° N. so that the conditions over that area are not available.

The following gives the shore observations for this day:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches.	
Diamond Island.	29·722	+·049	—·033	SSW	20	6	0·76	Distant lightning.
Bassein	·703	+·036	—·041	SSW	4	5	2·09	
Akyab	·575	+·060	—·122	S	6	10	2·22	Raining.
Chittagong	·73	—·043	—·196	ESE	[illegible]	7	...	
Jessore	29·438	—·066	—·174	ESE	1	7	...	
Barisal	·443	—·058	—·177	ENE	2	5	0·64	
Calcutta	·436	—·072	—·163	NNW	5	10	1·28	Showery.
Saugor Island	·404	—·110	—·194	NNW	13	9	0·45	Thunderstorm.
Balasore	·447	—·098	—·137?	NW	2	8	1·84	
False Point	·444	—·133	—·158	W	15	10	1·58	Continuous rain.
Cuttack	·500	—·094	—·099	W	4	10	0·21	Showery.
Puri	·525	—·080	...	WSW	9	10	0·24	Overcast with rain.
Gopalpur	·536	—·070	—·070	SW	5	8	0·05	Sea slight.
Waltair	·595	—·046	—·032	SW	14	10	...	Sea smooth.
Cocanada	·652	—·028	+·011	WSW	13	10	...	Sea rising.
Masulipatam	·727	+·001	+·045	WNW	15	10	...	Severe gale.

The above shows that pressure was falling rapidly at Saugor Island and False Point, while it was increasing briskly in Arakan. The depression still lay over the north of the Bay, but was apparently advancing towards the north-west coast of the Bay. The winds were rather strong over the head of the Bay and exhibited an indraught towards a centre in about Lat. 20° 45′ N. and Long. 89° 20′ E. Heavyish rain had spread to Arakan and Orissa.

August 18th.—Pressure had decreased rapidly to very rapidly over the north-west of the Bay and the cyclonic storm was approaching the coast between Saugor Island and Balasore, and pressure was more than 0·4″ below the normal at the former station. The following gives the marine observations on 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. *Unity*	14 38	93 52	29·750	SW	4	
S. S. *Khandalla.*	14 49	81 23	·765	W	5	Cloudy.
S. S. *Rothenfels.*	15 34	94 50	·718	SW	5	
S. S. *Chanda*	16 00	97 03	·714	SW	2	Overcast.
S. S. *Malda*	16 24	93 24	·631	SW	4	Moderate sea.

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S. S. *Maharaja* .	Ran	goon	29·714	...	...	Midnight, overcast.
S. S. *Sheikh* .	17 27	84 24	·589	WSW	5	Overcast. Noon, light rain.
S. S. *Ningchow* .	17 36	87 15	·410	SW	6	High sea; heavy rain.
S. S. *Deepdale* .	19 05	89 58	·428	SW	6	Strong sea; 4 A.M. heavy rain.
S. S. *Catherine Apcar.*	19 08	88 48	·465	SSW	9	Heavy sea. Midnight, rainy.
S. S. *Commilla* .	19 10	93 20	·624	S	5	Heavy swell. Cloudy. Noon, frequent heavy rain squalls.
S. S. *Rajah* .	19 10	87 30	·270	W by N	9	Heavy squalls with rain.
S. S. *Adana* .	19 22	88 54	·340	SW	7	High beam sea. Heavy rain.
S. S. *Ras Mora* .	19 24	88 46*	...	SW	10	Overcast; noon, very heavy squalls.

* Noon position.

There were no vessels on this day in the neighbourhood of the storm, but the following is the account of the weather experienced by the floating light vessel "*Comet*" at the head of the Bay:—

Hour.	Wind direction.	Force.	Barometer reduced to 32°.	Weather.
			″	
2	N	7 to 8	29·205	Cyclonic.
4	NNE	8 to 10	·115	Weather looking very ugly.
6	NNE	7 to 8	·145	
8	E by S	9	·187	Heavy sea running.
10	E by S	9 to 11	·229	Cyclone; ship labouring very heavily.
12	ESE	11	·205	Do.
14	SE	11 to 12	·215	Hurricane. About 2 P.M. a vivid flash of rosy pink lightning burst noiselessly in the zenith.
16	SE by S	11 to 12	·225	Do.
18	SSE	8 to 10	·284	Cyclone.
20	SE by S	8 to 10	·354	Moderating. Hard squalls intervened with welcome lulls and heavy rainfall.
22	SE by S	6 to 8	·414	Heavy rain.
24	SE by S	6 to 7	·414	Squally with incessant rain.

All the other vessels were to the south of Lat. 20° N. and were hence more or less outside the influence of the worst of the storm, but, as is shown in the above table, the S. S. *Catherine Apcar*, the S. S. *Rajah*, the S.S. *Adana* and the S. S. *Ras Mora* all reported gales and squalls of wind and rain.

The following were the shore observations on this day:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches.	
Diamond Island.	29·753	+·031	—·003	SSW	20	5	...	Sea falling.
Bassein . .	·743	+·040	—·010	Calm	4	6	0·01	
Akyab . .	·642	+·067	—·057	SE	5	10	2·10	
Chittagong .	·568	+·095	—·106	ESE	16	10	0·05	
Jessore . .	·466	+·028	—·150	ESE	10	10	0·13	Strong wind.
Barisal . .	·513	+·070	—·110	SSE	8	10	0·19	
Calcutta .	·348	—·088	—·253	ENE	12	10	0·30	Squally.
Saugor Island	·160	—·244	—·438	ENE	29	10	0·32	Severe gale of wind.
Balasore .	·255	—·192	—·329	NNW	10	9	3·14	Nor' wester with rain.
False Point .	·288	—·156	—·313	W	28	10	3·02	Squally.
Cuttack. .	·354	—·146	—·245	W	5	10	3·67	Continuous rain.
Puri . .	·404	—·121	...	W	16	10	4·81	Overcast with rain.
Gopalpur .	·454	—·082	—·162	SW	10	10	0·91	Showery.
Waltair .	·544	—·051	—·083	SW	11	10		Sea smooth.
Cocanada .	·610	—·042	—·032	WSW	11	10	0·01	Sea slight.
Masulipatam .	·693	—·034	+·008	WNW	14	9		Strong wind.

The storm had intensified rapidly and was central about 50 miles to the south or south-south-west of Saugor Island where pressure was about 0·45″ below the normal. Cyclonic winds and gales prevailed around the storm and heavy rain had fallen at the Orissa stations.

August 19th.—The cyclonic storm had advanced in a north-westerly direction and was central about 10 miles west of Chaibassa. The winds had "backed" all over the Bay and were blowing from south at the head 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. *Darius* .	13 59	81 06	29·675	NW	2	Sea smooth; fine.
S. S. *Chanda* .	16 09	93 59	·694	SW	4	Moderate sea; fine.
S. S. *Commilla* .	16 21	93 56	·706	SW	4	Heavy swell; fine.
S. S. *Khandalla*	Coca	nada	·695	...	..	4 A.M., fine.
S. S. *Rothenfels*	17 21	91 58	·658	SW	5	
S. S. *Ras Mora* .	17 28	87 54	...	SW	8	Rough sea. Overcast.

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S. S. *Malda*	19 24	90 10	29·578	SSW	4	Passing rain squalls.
S. S. *Sheikh*	19 49	86 34	·549	SSW	5	Moderate sea and cloudy.
S. S. *Kistna*	Akyab		·737	...	...	Midnight, drizzling rain.
S. S. *Ningchow*	20 31	88 07	·510	SW	4	Moderate following sea. Overcast; 4 A.M., heavy rain squalls.
S. S. *Adana*	20 37	88 30	·440	S	5	Heavy south-west swell. Hazy.
S. S. *Rajah*	20 38	87 56	·430	S	3	Heavy sea. Noon, fine but very hazy.
S. S. *Deepdale*	20 41	88 22	·478	SSW	6	Strong sea. Hazy.
S. S. *Catherine Apcar*	20 42	88 20	·595	SW	6	Fine.
S. S. *Ethiopia*	Saugor Island		·561	...	...	4 P.M., fine.
S. S. *Karagola*	Calcutta		·574	...	...	Noon, fine and clear.

The above observations exhibit the usual conditions when a storm has passed inland. Strong squally winds prevailed throughout the Bay and reached the force of a gale in some places. Constant passing squalls of wind and rain were the principal characteristics of the weather.

The following gives the land observations for the storm area:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches.	
Gopalpur	29·480	+·026	—·138	SW	19	6	0·35	Sea rough.
Puri	·452	+·048	...	SW	25	7	0·21	
Cuttack	·452	+·078	—·167	SW	10	10	1·34	Showery.
False Point	·458	+·170	—·143	SSW	26	8	1·92	
Balasore	·443	+·188	—·140	S	19	6	2·50	Gale of wind.
Saugor Island	·500	+·340	—·097	SSE	37	9	5·19	Continuous rain.
Midnapore	·448	+·101	—·160	SE	14	10	4·25	Ditto
Calcutta	·531	+·183	—·071	ESE	15	8	0·61	
Burdwan	·509	+·073	—·101	E	13	10	0·52	
Raniganj	·445	—·012	...	ESE	11	10	2·15	Raining.
Berhampore	·565	+·060	—·052	E	11	10	0·38	
Chaibassa	·298	—·125	—·281	SSE	11	10	2·16	Continuous rain.
Ranchi	·280	—·223	—·304	E	3	10	2·24	Ditto.
Bankura	·417	+·008	...	SE	10	10	2·95	Raining.
Hazaribagh	·350	—·195	—·245	E	25	10	2·22	Gale.
Sambalpur	29·367	—·038	—·022	SW	5	8	...	
Raipur	·590	—·076	—·096	W	15	10	0·75	Drizzling.
Jubbulpore	·548	—·090	—·070	WNW	6	10	1·07	
Sutna	·547	—·073	—·044	N	4	8	0·06	
Allahabad	·530	—·057	—·049	ENE	6	10	1·75	Thunderstorm.
Benares	·502	—·072	—·078	ENE	3	10	0·21	Drizzling.
Patna	·499	—·070	—·099	ENE	9	10	0·15	Showery.
Gaya	·423	—·133	—·164	NE	25	10	0·12	Severe gale of wind.

The barometer had risen with great rapidity in Deltaic Bengal while it had fallen over 0·20″ at Chaibassa and rapidly in the surrounding regions. The storm had advanced about 200 miles in the preceding 24 hours and the centre lay about 10 miles to the west of Chaibassa where pressure was rather more than 0·30″ ~~below~~ the normal. The storm was hence beginning to fill up. The rainfall had been very heavy in the path of the storm.

August 20th.—The cyclonic storm had advanced in a west-north-westerly direction and was central between Sutna and Jubbulpore. 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.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Hoshangabad	29·545	—·128	—·099	NW	8	10	0·69	Raining.
Jubbulpore	·360	—·188	—·256	WSW	10	10	6·40	Do.
Sutna	·349	—·198	—·249	E	15	10	2·25	Do.
Allahabad	·445	—·085	—·140	ENE	24	10	0·08	Gale.
Benares	·466	—·036	—·118	SE	8	9	0·30	
Buxar	·506	+·002	—·086	E	11	8	0·14	Passing showers.
Lucknow	·504	—·066	—·086	E	7	10	...	
Cawnpore	·484	—·086	—·097	ENE	7	10	...	Wind variable.
Jhansi	·485	—·125	—·111	N	5	7	1·81	Continuous rain.
Nowgong	·408	—·181	—·190	NE	5	10	1·60	Ditto.
Saugor	·434	—·187	—·173	WNW	5	10	1·59	Raining.
Seoni	·507	—·112	—·124	SW	15	10	0·21	
Hazaribagh	·561	+·211	—·049	S	17	10	1·02	
Ranchi	·555	+·275	—·044	S	16	7	0·51	Showery.
Chaibassa	·551	+·253	—·028	WSW	2	2	0·10	

The preceding data show that pressure had increased nearly 0·30″ in Chota Nagpur, while it had fallen between 0·18″ and 0·20″ at Jubbulpore, Sutna, Nowgong and Saugor. A well-defined cyclonic circulation of the winds prevailed around the storm and gales were reported at most of the central stations. Moderate to heavy rain had fallen over the Central Provinces and Central India, the heaviest fall having been 6·40 inches at Jubbulpore.

August 21st.—The cyclonic storm had continued to advance in a west-north-westerly direction and the centre lay about 50 miles to the west-south-west of Jhansi. The following gives 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Neemuch	29·535	—·102	—·132	NE	16	10	1·67	Raining.
Nowgong	·498	+·090	—·105	ESE	6	9	0·23	
Jhansi	·439	—·046	—·160	ESE	9	7	1·29	Continuous rain.
Kotah	...	—·112	...	NNW	9	10	4·37	Thunderstorm.
Sambhar	·513	—·063	—·070?	W	7	8		
Jaipur	·508	—·070	—·077	NNW	3	6		
Agra	·487	—·055	—·098	SE	4	9		
Mainpuri	·494	—·046	—·083	SSE	4	8		
Lucknow	·533	+·029	—·062	SE	5	5		
Cawnpore	·512	+·028	—·075	SE	6	2	0·03	
Allahabad	·537	+·092	—·051	SW	6	2		
Sutna	·540	+·191	—·058	S	7	4	0·05	
Jubbulpore	·553	+·193	—·067	SE	7	6	0·67	

The above shows that the storm had continued to fill up. The depression of the barometer near the centre was, however, still about 0·16″ and the storm remained well-defined. Cyclonic winds and gales continued to prevail about the centre and the rainfall remained heavy in the central districts.

August 22nd.—Pressure had increased all over India—most in the storm area—and the cyclonic storm had practically filled up.

The following gives the position and rate of movement of the centre from the 15th until the 21st August :—

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.
15th August	20 0	92 0	...	...
16th ,,	20 30	89 40	180	8
17th ,,	21 0	88 20	90	4
18th ,,	21 25	87 30	65	3
19th ,,	22 45	85 0	195	8
20th ,,	25 0	81 25	290	12
21st ,,	26 0	78 25	205	9

On the 23rd both monsoon currents were weak and though showers were falling along the West Coast, and in Bengal the weather was fairly fine generally. The barometer was steady in Bengal on this day, but on the 24th pressure was giving way over Bengal and the head of the Bay and a depression was appearing.

Cyclonic storm of August 24th to 31st.—The following gives the marine data for the 24th :—

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. *Loch Tay*	13 15	91 48	...	W	6	Midnight, rain squalls.
S. S. *Rajpootana*	15 38	94 52	29·653	W by N	2	Fine and following sea; 4 P.M. occasional rain.
S. S. *Comeric*	16 41	86 17	...	WSW	2	Cloudy.
S. S. *Maharani*	Rangoon		·629	...	...	8 P.M., rainy.
S. S. *Goldenfels*	17 07	86 15	·629	W	4	
S. S. *Umhloti*	17 47	86 51	·613	NNW	2	Fine and smooth sea.
S. S. *Clan Garden*	17 51	85 17	·620	Var.	5	Cloudy.
S. S. *Commilla*	18 45	93 31	·581	W	4	Occasional rain.
S. S. *Maharaja*	20 14	88 43	·564	WNW	3	Passing clouds and moderate sea.
S. S. *Karagola*	Akyab.		·667	...	...	4 A.M., fine.
S. S. *Malda*	Calcutta.		·554	...	...	Noon, fine.
S. S. *Shahzada*	Calcutta.		·524	...	...	Noon, fine and clear.

The above shows that the winds were light to moderate and were generally westerly with showers in some places. The S. S. *Maharaja* and the S. S. *Umhloti*, however, reported winds from the north of west and showed the com-

mencement of the cyclonic circulation. The following gives the shore observations on this day :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Diamond Island	29·653	—·059	—·117	W	11	8	...	
Bassein .	·646	—·040	—·119	Calm	6	9	0·58	Raining.
Akyab .	·613	—·055	—·115	E	2	8	0·29	
Chittagong .	·599	—·057	—·101	SSE	5	9	0·03	
Jessore . .	·591	—·030	—·043	Calm	1	7	...	
Barisal . .	·594	—·038	—·047	SSW	2	7	0·05	Showery.
Calcutta .	·597	—·045	—·021	Calm	2	6	0·55	Thunder-storm.
Saugor Island	·582	—·053	—·038	NW	9	3	1·16	
Balasore .	·612	—·053	+·007	Calm	2	4	0·58	
False Point .	·599	—·070	—·029	W	10	8	...	Distant lightning.
Cuttack .	·623	—·053	—·002	W	3	8	0·79	
Puri . .	·625	—·052	...	WNW	9	4	2·50	
Gopalpur .	·633	—·051	+·010	N	7	8	0·41	
Waltair .	·658	—·061	+·009	Calm	10	10	...	Sea smooth.
Cocanada .	·678	—·059	+·019	WSW	11	7	...	Sea slight.
Masulipatam .	·716	—·048	+·008	WNW	9	5	...	

The wind was north-westerly at Saugor Island, westerly in Orissa and easterly and south-easterly on the Arakan coast. The barometer was falling all over the Bay.

August 25th.—A large diffused depression had appeared over the head of the Bay and pressure was about 0·18" below the normal off the Arakan coast. The following gives the 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.
	° ′	° ′				
S. S. *Maharani* .	15 46	94 36	29·657	SW	4	Rainy; moderate sea.
S. S. *Purul a* .	Moulmein.		·713	...		8 P.M. passing squalls.
S. S. *Rajpootana*	Rangoon.		·682	...		4 A.M. cloudy.
S. S. *Musician* .	17 22	86 41		WSW	2	Cloudy.
S. S. *Malda* .	19 00	90 29	·536	NW	2	Do.
S. S. *Clan Murray*	19 10	87 30*	·530	SW	4	4 P.M., lightning in west.
S. S. *Commilla* .	19 40	93 12	·509	WSW	4	Heavy continuous rain and moderate sea.
S. S. *Shahzada* .	19 40	89 37	·508	SW	3	Cloudy; noon, passing rain.
S. S. *Karagola* .	19 50	92 50	·522	SSE	4	Showery.
S. S. *Comeric* .	20 03	87 31	...	WSW	2	Cloudy.
S. S. *Clan Garden*	20 49	88 16	·520	SW	4	Overcast and moderate sea.

* Noon position.

The winds were irregular at the head of the Bay varying between south-west and south-east. Rain was falling in the neighbourhood of Akyab. The following gives 8 A.M. observations for the stations around the north of the Bay :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Diamond Island.	29·657	+·004	—·113	SW	13	10	2·03	Continuous rain.
Bassein .	·626	—·020	—·142	S	6	9	2·17	
Akyab . .	·549	—·064	—·184	E	2	8	0·24	
Chittagong .	·532	—·067	—·170	W	3	9	...	
Jessore .	·541	—·050	—·098	Calm	1	6	...	
Barisal .	·550	—·044	—·097	WNW	1	4	0·02	
Calcutta .	·552	—·045	—·071	N	1	6	0·29	
Saugor Island	·543	—·039	—·082	WNW	5	5	0·02	Sea slight.
Balasore .	·566	—·046	—·043	Calm	1	3	0·36	
False Point .	·553	—·046	—·080	W	8	6	...	
Cuttack .	·557	—·066	—·071	W	2	4	0·02	
Puri . .	·565	—·060	...	Calm	8	3	1·62	
Gopalpur .	·561	—·072	—·065	N	9	1	0·03	
Waltair .	·591	—·067	—·059	Calm	6	7	...	Sea smooth.
Cocanada .	·611	—·067	—·047	WNW	7	1	...	
Masulipatam .	·654	—·052	—·055	WNW	11	8	...	Strong wind.

The winds exhibited an irregular cyclonic circulation but they were generally feeble except to the south of the depression area in Lower Burma. There was very little rain also except in Burma. The baromter had continued to fall all over the north of the Bay and pressure was 0·18" below the normal at Akyab.

August 26th.—The depression in the north of the Bay had intensified slightly. 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.
	° ′	° ′	"			
S.S. *Taher* .	13 18	85 06	29·653	W	5	Cloudy.
S.S. *Loodiana* .	14 48	82 02	·437	WNW	4	Fine and slight west swell
S.S. *Oolobaria* .	15 04	94 48*	·705	SWbyW	4	Midnight, rainy.
S.S. *Purulia* .	15 44	95 04	·733	SW	4	Fine; 4 A.M., slight rain.

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Clan Murray*	15 50	86 03	29·560	W	4	Overcast; 4 A.M., heavy rain squalls and lightning in south-west.
S.S. *Malda* .	15 57	93 44	·649	SW	5	Cloudy and moderate sea. Midnight, rain squalls.
S.S. *Karagola* .	16 52	93 50	·642	SSW	4	Squally.
S.S. *Shahzada* .	17 20	92 15	·503	SW	4	Squally and rough sea.
S.S. *Maharani* .	18 19	93 04	·604	SW	2	Overcast and smooth sea.
S.S. *Commilla* .	Akyab.		·616	...	...	8 P.M., occasional rain.
S.S. *Musician* .	Saugor Island*.		...	W	2	Rainy.

* Noon position.

There was very little information available and except that fresh south-westerly winds prevailed over the south of the Bay there was little indication of the presence of the storm. The following gives the shore observations at 8 A.M. :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Diamond Island.	29·699	+·042	—·073	WSW	15	10	2·39	Sea smooth.
Bassein .	·680	+·054	—·091	Calm	5	9	1·30	
Akyab . .	·572	+·023	—·165	SE	5	7	0·65	
Chittagong .	·538	+·006	—·174	ESE	5	7	1·07	Showery.
Jessore . .	·505	—·036	—·143	E	1	8	0·78	
Barisal . .	·514	—·036	—·141	ENE	4	10	0·81	
Calcutta .	·497	—·055	—·135	ENE	4	10	1·18	Showery.
Saugor Island	·521	—·022	—·118	NNE	8	10	0·90	Raining.
Balasore .	·522	—·044	—·101	Calm	0	8	0·63	
False Point .	·504	—·049	—·139	W	6	10	0·02	Distant lightning.
Cuttack .	·517	—·040	—·120	W	2	10	0·04	
Puri . .	·519	—·046	...	WNW	8	9	0·20	
Gopalpur .	·539	—·022	—·092	Calm	6	7	0·88	Showery.
Waltair .	·580	—·011	—·079	SW	8	10	0·45	Sea smooth.
Cocanada .	·578	—·033	—·084	WSW	7	9	...	
Masulipatam .	·627	—·027	—·086	WNW	11	10	0·02	

Pressure had increased slightly to briskly in Burma and had fallen slightly over the west and north-west of the Bay. The winds apparently pointed to the existence of a small centre off the Sandheads. Gradients were increasing over the Bay and the south-westerly windsi n the south were rising.

August 27th.—The storm noticed near the Sandheads on the 26th had advanced north-westward during the previous 24 hours and the centre was close to Chaibassa at 8 A.M. on the 27th. The following gives 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.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Balasore .	29·564	+·042	—·068	SW	1	6	5·21	
Saugor Island	·553	+·032	—·094	SSE	9	8	1·96	Sea rough.
Midnapore .	·527	+·015	—·124	SE	2	10	1·09	Passing showers.
Chaibassa .	·484	—·032	—·143	Calm	1	7	3·23	Continuous rain.
Bankura .	·485	+·003	...	SE	2	9	0·67	Dark gloomy.
Ranchi . .	·520	—·041	—·113	NW	4	10	1·96	Continuous rain.
Hazaribagh .	·540	—·033	—·100	N	9	10	3·82	Do.
Daltonganj .	·528	—·031	...	SE	2	8	0·21	Dark gloomy.
Dehri . .	·547	—·006	—·069	N	3	10	0·11	Do.
Naya Dumka.	·559	+·032	—·077	E	3	10	0·53	
Berhampore .	·572	+·043	—·076	ESE	6	8	0·06	
Raniganj .	·528	+·020	...	ESE	1	9	0·76	
Burdwan .	·541	+·029	—·105	S	3	9	1·37	Continuous rain.

The barometer had risen slightly to briskly over and around the Bay, while it had fallen slightly in Chota Nagpur. The cyclonic storm had advanced about 200 miles north-westward and the barometer marked 0·143″ below the normal at Chaibassa. The winds were cyclonic around the storm, but except at the head of the Bay the force of the winds was low and the rainfall, though general, was only moderately heavy.

August 28th.—The storm had continued to move north-westward and was shown near Allahabad. 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.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Hazaribagh .	29·564	+·024	—·082	S	12	10	0·74	Showery.
Daltonganj .	·521	—·007	...	SE	2	8	0·32	Passing showers.
Gaya . .	·524	—·021	—·105	SE	6	9	0·50	Showery.

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Dehri . .	29·517	—·030	—·107	ESE	10	10	1·04	Drizzling rain.
Buxar . .	·528	—·056	—·098	E	7	10	0·16	
Benares. .	·471	—·098	—·147	E	1	10	0·29	Showery.
Allahabad .	·480	—·100	—·138	ENE	5	10	1·74	Thunder-storm.
Cawnpore .	·522	—·031	—·090	E	1	10	0·60	
Lucknow .	·537	—·028	—·080	ENE	2	10	1·27	Showery.
Mainpuri .	·555	+·056	—·053	ENE	3	8	0·32	
Jhansi . .	·538	—·038	—·089	Calm	5	8	0·13	
Nowgong .	·551	—·037	—·080	W	2	10	0·16	Raining.
Sutna . .	·523	—·069	—·108	WNW	8	10	2·05	Continuous rain.

There had been a brisk rise of the barometer over South-West Bengal, Orissa and Ganjam and a brisk fall over the east of the North-Western Provinces. The cyclonic storm had advanced about 300 miles north-westward and was central near Allahabad and Benares where pressure was 0·147" below the normal. The winds were generally cyclonic and there had been general, though not very heavy, rain over North-Eastern and Northern India.

August 29th.—The cyclonic storm had advanced slowly westward and was central in Lat. 24° N. and Long. 79° E. The following gives 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Saugor . .	29·515	—·070	—·138	SSW	9	10	0·47	Showery.
Sutna . .	·550	+·027	—·085	SSW	8	10	0·18	
Nowgong .	·519	—·032	—·116	S	1	10	0·24	
Jhansi . .	·537	—·001	—·096	E	3	10	1·10	Continuous rain.
Allahabad .	·554	+·074	—·069	SSE	4	10	0·83	
Cawnpore .	·529	+·007	—·083	Calm	3	10	0·74	
Lucknow .	·538	+·001	—·083	E	6	9	0·31	
Mainpuri .	·542	—·013	—·069	E	3	8	...	
Agra . .	·545	—·027	—·069	NE	3	8	...	
Bareilly. .	·573	—·024	—·045	Calm	1	8	...	

Pressure had increased slightly over the greater part of the country and briskly over the east of the North-Western Provinces, but had decreased over North-West India. The storm had advanced westward, but the central area was no longer well-defined. The winds were irregular, and rain had ceased to a large extent.

August 30th.—The depression was practically unchanged on this day and on the following day the storm had disappeared.

The following gives the position and rate of movement of the centre from the 24th until the 30th of August:—

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.
24th August	20 15	92 20	...	...
25th "	21 0	90 5	165	7
26th "	21 30	88 30	115	5
27th "	23 15	85 40	227	9
28th "	25 30	82 5	290	12
29th "	26 0	80 40	95	4
30th "	26 35	80 5	60	3

The above shows that there occurred a constant succession of cyclonic storms throughout the month. During the first three weeks of the month the Arabian Sea monsoon current was strong and the storms took a westerly direction across Central and Northern India. The Arabian Sea current hence fed into all the storms and the rainfall throughout the country, but particularly along the path of the storms, was general and heavy. The last storm of the month, however, took a more northerly direction and the Arabian Sea monsoon current was light, so that the "feeding in" did not in this case occur, and a partial break in the rains occurred over Western and North-Western India, though North-Eastern India and the Gangetic Plain received general rain during the existence of this storm also. Another interesting feature in the conditions accompanying the storms of the present month has been the appearance of an area of low pressure over Burma anterior to the appearance of the storms over the Bay. These areas of low pressure have advanced westward through Burma into the Bay and have been accompanied with heavy rain, low temperatures and the usual oscillation of the barometer. Occasionally the advance of one of these low pressure areas has been synchronous with the development of a depression over the Bay area, but, at other times, the depression from Burma advanced out into the Bay and preceded the appearance of a cyclonic storm over the Bay.

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

I.—NORTH-WESTERN PROVINCES HIMALAYAS.

The only snowfall reports submitted were those for Almora and Garhwal.

The Deputy Commissioner, Almora, reports that snow fell as follows:—

Malla Danpur.

13th to 16th August	6 inches
20th to 26th "	12 "
Total	1 foot 6 inches

Malla Johár.

10th August	2 feet
14th "	4 "
24th "	2 "
Total	8 feet

On Mallas, Byans, Chandans and Darma there was no snow during the month.

The snowfall was generally equal to that of last year.

The Deputy Commissioner, Garhwal District, reports that there were slight snowfalls on the perpetual snows on the 19th, 21st and 30th August. The depth of the falls was about 3″.

Summary of Special Storm Reports.

The following gives a statement of the chief local storms of which reports were received during the month:—

1st.—A slight local storm occurred at Puri in the early morning with light rain.

A sharp local storm occurred at Waltair in the early morning. The wind blew a gale from south-west, but there was no rain.

A gale of wind was experienced at Burdwan between 1-20 P.M. and 4-P.M. followed by rain.

A duststorm was experienced at Ispahan between 4-15 P.M. and 4-40 P.M. A little rain fell at the station, heavy thunder on hills all round.

1st and 2nd.—Thunderstorm at Gulmarg from 9-27 P.M., 1st to 3 A.M. of the 2nd.

Thunderstorm at Srinagar from 8 P.M. 1st, till 5 A.M. on the 2nd. Light rain fell.

4th.—A thunderstorm passed over Jodhpur at 2-23 P.M. The storm lasted 10 minutes and gave light rain.

7th.—A thunderstorm was experienced at Srinagar on the 7th from noon to 1 P.M. Light rain fell subsequently.

8th.—A slight local storm passed over Waltair between 2 P.M. and 8 P.M.

12th.—A thunderstorm was felt at Nagpur between 2 P.M. and 8 P.M. with strong winds, squally weather and heavy rain.

13th.—A heavy storm passed over Nagpur between 7 A.M. and 5 P.M. with torrential rain.

A violent duststorm occurred at Jacobabad between 2-45 P.M. and 3-5 P.M. A sharp shower of rain followed.

14th.—A violent duststorm with thunder and lightning occurred at cobabad at 10-15 P.M. lasting twenty minutes. The storm came up from east.

Severe storm passed over Nagpur with hurricane winds.

16th.—Heavy rain fell at Srinagar and Gulmarg on the 16th and 17th.

18th.—A severe storm accompanied with heavy rain passed over Saugor between 11 A.M. and 11-30 A.M. Heavy thunder was reported.

A moderate thunderstorm passed over Allahabad; it commenced at 1-30 P.M. and continued till 3 P.M. Heavy showers fell in the neighbourhood.

19th.—Storm passed over Agra from east commencing at 6-45 P.M. and followed by heavy rain at 7 P.M.

Strong squally winds and gales were felt at Allahabad; the strongest winds were registered between 9 P.M. and midnight.

20th.—A severe gale was experienced at Nagpur between 8 A.M. and 6 P.M. with light rain.

21st.—A thunderstorm visited Gulmarg between 4 P.M. and 7-30 P.M. with light rain.

25th.—A moderate thunderstorm passed over Gulmarg between 1-35 P.M. and 4-30 P.M.

A violent storm occurred at Boalia at 2 A.M. lasting twenty minutes.

A slight thunderstorm passed over Salem lasting from 4-30 P.M. to 5-10 P.M.

At 1 A.M. a thunderstorm commenced at Srinagar and lasted two hours. Light rain fell.

27th.—A moderate thunderstorm passed over Allahabad lasting from 2 P.M. to 9 P.M. Heavy rain accompanied the storm.

28th.—A severe storm passed over Saugor giving light rain. The storm came up from west and lasted from 4-21 P.M. to 4-50 P.M. causing considerable damage.

Earthquake Reports:—

A severe shock of earthquake was felt at Gulmarg at 2-33 A.M. on the 2nd. This shock was also felt at Simla. Three severe shocks of earthquake occurred at Gulmarg at 3-38 A.M. of the 27th.

On the 10th of August high floods were reported from parts of the Kamrup, Darrang and Nowgong districts of Assam, but the floods in Sylhet were subsiding.

The following gives an account of the floods in the Godavery following on the heavy rain in the Central Provinces on the 12th and 13th taken from the *Enlishman*:—

THE GODAVERY FLOODS.

The Englishman, *dated 31st August 1900.*

Writing from Rajahmundry on the 17th instant a correspondent of the *Madras Mail* says:— The Godavery in high flood is, indeed a sight worth seeing. According to the readings at the Godavery bridge, I understand that the maximum flood level recorded on the 3rd of October, 1891, was reached on Wednesday last, but I was informed at Dowlaishwaram that the measurements there showed that it was a foot below the maximum level, though at Bobbarlanka and Vijeswaram head sluices, the maximum has been nearly approached. Any how we have had an unusually heavy flood in the first year after the completion of the Godavery bridge, and there is no doubt that the maximum would have been exceeded but for the numerous breaches which formed outlets for the rushing waters. The river has fallen about three feet since Wednesday, and is now four miles broad from bank to bank at Dowlaishwaram. The lankas (islands) producing the famous lanka tobacco are now completely submerged, and the river is a vast expanse of water rushing to the sea and carrying everything before it. Considerable loss of property is the usual result of a heavy flood, and I notice, valuable timber, drift wood of all sorts, and large numbers of cattle being carried down by the impetuous torrent. Another noticeable feature is the large number of live snakes of all sorts that float down the river. Good numbers of these were destroyed where possible, and snake charmers had a good time of it and made some really good catches of large snakes. Wild boars were also carried down, and some of these have been shot. Many trees were uprooted bodily, and monkeys were seen clinging to the branches of some of them. The embankments below and above the anicut have been breached in se veral places, and it is not possible now to give more than a few particulars of the damage done in Yernagudem Taluq. A big breach extending over half a mile of the river embankment at Kumaradevam, about seven or eight miles up the river from the Godavery bridge approach, near Kovvur, has diverted the water into Yernagudem, Tanuku and Bhimavaram Taluqs. The dry crops of the Yernagudem Taluq have been carried away, and I understand that the standing crops in Tanuku and Bhimavaram Taluqs have been or are being washed away. The railway line between Kovvur and Nidadavole has been seriously damaged in several places, including two bridges. The country between Kovvur and Nidadavole and the surrounding country is one sheet of water. The canal between Vijeswaram and Nidadavole has also been breached in several places. Railway communication with Nidadavole and Kovvur ceased three days ago, and all trains from the Madras side are working only up to Nidadavole. It is apprehended that it will take at least a month to restore communications properly. The river embankments in the central and eastern deltas have also been breached, and I understand, that portions of Amalapuram and Ramachendrapuram Taluqs are under water. No adequate idea of the loss to property can be formed at present, but there is no doubt that there must be a serious diminution of the crop outturn in the delta this year.

The town of Rajahmundry has also suffered severely on account of the flood, that portion of the old town between Godavery North Station and the Judge's house not being protected by a bund. Nearly 700 or 800 houses in this part of the town are under water. Since Wednesday last the occupants have had to quit their houses with their household goods at a few hours' notice. Boats are plying in some of the streets and all communication with the Post Office was by boat for some time, though wading is now possible. The Godavery North premises are completely under water.

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

Arabian Sea:—So far as can be judged from the available data the meteorological conditions over the Arabian Sea differed to no important extent from those which usually obtain in that area in the month of August. The monsoon current in this region was,, on the mean of the month, practically of normal strength (only 5 per cent. feebler than usual). It was remarkably steady during the first fortnight but varied very irregularly and considerably in strength from day to day during the second half of the month. It was more or less above its normal intensity from the 3rd to the 7th, the 12th to the 14th and on the 10th and 16th; of normal strength, on the 2nd and 11th, and feebler than usual during the rest of the month. It was strongest on the 13th when it averaged 5·0 in force and lightest on the 28th when its mean intensity, as derived from the data of 15 vessels, was 2·9 or 1·4 below the normal.

The winds were, as is usually the case during the monsoon period, strongest throughout the month in the west near Socotra where they ranged in force between 4 and 9·

From this region they decreased in all directions and were of force 2 to 6 in the extreme south-east where they were feeblest.

Bay of Bengal :—The weather over this area was even more disturbed than usual in August, and the monsoon current was on the average of the whole month 0·4 stronger than usual. It was, however, unlike the current in the Arabian Sea, exceedingly unsteady during the first eighteen days, fluctuating largely in intensity from day to day. It was of normal strength on the 8th, 19th and 22nd, feebler than usual on the 21st and from the 23rd to the 29th, and considerably stronger than usual on other days of the month.

The most important feature of the meteorology over this area was a series of four cyclonic storms which formed or appeared over the north of the Bay. Hence the weather over the north of the Bay was abnormally unsettled and stormy, more especially from the 17th to the 19th, when the third storm of the series was in process of development. This storm was a very concentrated disturbance and occasioned hurricane winds on board the F. L. V. *Comet* on the afternoon of the 18th.

Equatorial Belt.—The available data indicate that the air movement over the western half of this area was fairly normal in character. The weather was, however, finer than usual. This is fully borne out by the data of the Seychelles and Zanzibar at both of which stations the rainfall of the month was much below the normal.

Temperature of the Air.

The mean day or maximum temperature of the month was below the normal in one large area and in four small areas. The large area included Gujarat, Central India, the Konkan, the Bombay Deccan, the Central Provinces and Orissa, thus extending right across the head of the Peninsula. Within this area the variations from the normal were generally small and exceeded 1° only at the following stations :—

Station.	Mean maximum temperature.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	°	°	°
Rajkot	86·8	88·7	—1·9
Surat	85·1	86·9	—1·8
Jhansi	87·2	88·5	—1·3
Nowgong	87·0	88·3	—1·3
Neemuch	83·3	84·5	—1·2
Saugor	82·4	83·5	—1·1
Seoni	82·2	83·3	—1·1
Poona	80·6	81·7	—1·1

Of the four small areas within which the mean day temperature was in defect one lay over the East Punjab, the second over Upper Burma, the third over parts of Tenasserim and Lower Burma and the fourth over parts of South India. The deficiency in the day temperature was very marked in the first of these small areas owing to excessive rainfall, relatively to the normal, but in the remaining three areas the variations from the average were small. The following gives the largest variations from the normal in each of the four areas :—

Province.	Station.	Mean maximum temperature.		
		Actual, August 1900.	Normal, August.	Variation of actual from normal August 1900.
		°	°	°
East Punjab	Ludhiana	90·3	95·3	—5·0
Upper Burma	Minbu	88·8	90·7	—1·9
Tenasserim	Moulmein	83·0	83·2	—0·2
South India	Coimbatore	87·9	88·5	—0·6

Over the remainder of India the day temperature on the mean of the month was in excess. This excess was considerable to large in three areas, the first including Sind, Western Rajputana and the South Punjab, the second including the submontane districts of the North-Western Provinces and of Bengal, Assam and South-East Bengal, and the third the Carnatic and the extreme south of the Peninsula. The following gives data for the sta-

tions in each area at which the excess was more than 2° :—

Area.	Station.	Mean maximum temperature. Actual, August, 1900.	Normal, August.	Variation of actual from normal, August 1900.
		°	°	°
First Area	Bikaner	100·0	96·3	+3·7
	Jacobabad	107·0	103·6	+3·4
	Hyderabad (Sind)	98·7	95·3	+3·4
	Kurrachee	92·0	89·2	+2·8
	Mooltan	103·0	100·3	+2·7
	Dera Ismail Khan	102·8	100·7	+2·1
Second Area	Silchar	94·0	89·2	+4·8
	Jalpaiguri	91·3	87·8	+3·5
	Bahraich	92·2	89·3	+2·9
	Agra	92·9	90·4	+2·5
	Bogra	90·4	87·9	+2·5
	Chittagong	87·7	85·2	+2·5
	Mainpuri	92·6	90·2	+2·4
	Dinajpur	90·9	88·7	+2·2
	Mymensingh	89·4	87·2	+2·2
	Barisal	88·4	86·3	+2·1
Third Area	Madras	98·4	93·7	+4·7
	Nellore	98·6	95·0	+3·6
	Cuddalore	96·8	93·6	+3·2
	Trichinopoly	98·6	96·0	+2·6
	Cochin	85·8	83·2	+2·6
	Raichur	90·2	87·8	+2·4

There were fairly warm periods during the month between the 5th and the 8th, the 13th to the 16th, and the 20th to the 29th, but generally the rainfall was fairly continuous, and the maxima were on no occasion remarkably high. The following gives the highest maximum recorded during the month in the different provinces of India together with the date of the occurrence and a comparison with previous high readings :—

Province or Division.	Station.	Highest maximum temperature recorded in August 1900.	Date on which recorded.	Highest maximum temperature recorded in August previous to 1900.	Year in which recorded.
		°		°	
Burma	Mandalay	97·0	24th	103·4	1891
Assam	Silchar	100·6	17th	100·6	1899
Bengal	Rangpur	97·7	"	97·2	1899
Orissa	Puri	93·7	24th	98·2	1899
Bihar	Gaya	97·2	16th	98·6	1877
Chota Nagpur	Daltonganj	93·1	10th and 15th	96·1	1899
North-Western Provinces.	Mainpuri	101·3	11th	100·3	1899
Punjab	Mooltan	110·4	23rd	111·4	1899
Sind	Jacobabad	116·1	7th	114·4	1877
Rajputana	Pachpadra	106·5	4th	111·5	1883
Gujarat	Bhavnagar Para.	96·1	29th	99·1	1899
Central India	Nowgong	92·5	2nd	100·0	1883
Berar	Akola	91·9	28th, 30th and 31st	99·8	1899
Central Provinces.	Chanda	93·7	26th and 30th	99·2	1899
West Coast	Mormugao	86·5	23rd and 24th	88·0	1899
Bombay Deccan	Sholapur	96·2	31st	101·0	1877
Mysore	Bangalore	88·8	25th	91·7	1899
Madras Coast	Nellore	103·8	30th	105·4	1899
Madras Deccan	Cuddapah	101·2	15th, 16th and 30th	104·2	1899
South India	Tinnevelly	102·4	29th	102·4	1895, 1898

The above shows that the highest maxima of the month were generally recorded during the last week—more particularly in the Peninsula—and that higher readings than any recorded during the month under review have been registered previously in all divisions except Bengal and the North-Western Provinces.

The mean minimum or night temperature was in excess in almost all parts of the Indian land area. The only exceptions, which were all unimportant, were as follows :—

Station.	Mean minimum temperature. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	°	°	°
Toungoo	74·4	74·9	—0·5
Raipur	74·4	74·8	—0·4
Gopalpur	78·5	78·8	—0·3
Amraoti	72·4	72·5	—0·1
Gaya	78·4	78·5	—0·1

The variations of the mean minimum or night temperature were generally similar to those of the day temperature. Thus they exhibited a marked excess over Sind, Rajputana and part of the Punjab, over the submontane

districts of the North-Western Provinces and of Bengal and over the Carnatic. The following gives the variations exceeding 2° in these three areas :—

AREA.	STATION.	MEAN MINIMUM TEMPERATURE. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
		°	°	°
FIRST AREA	Bikaner	83·3	78·0	+5·3
	Rawalpindi	78·2	75·1	+3·1
	Montgomery	84·0	81·0	+3·0
	Sialkot	80·1	77·3	+2·8
	Sambhar	78·6	75·8	+2·8
	Kurrachee	81·1	78·4	+2·7
	Ajmer	77·0	74·5	+2·5
	Jaipur	77·4	75·0	+2·4
	Jacobabad	83·7	81·3	+2·4
	Sirsa	81·9	79·5	+2·4
	Lahore	81·1	78·9	+2·2
SECOND AREA	Jalpaiguri	78·5	76·1	+2·4
	Purnea	80·0	77·9	+2·1
	Bahraich	80·0	77·9	+2·1
THIRD AREA	Cuddapah	79·2	76·5	+2·7
	Madras	80·0	77·3	+2·7
	Salem	74·5	71·8	+2·7
	Cuddalore	79·0	76·5	+2·5
	Trichinopoly	78·6	76·2	+2·4

The mean temperature of the month was in defect in three areas. The first included the Umballa and Ludhiana districts of the Punjab, the second lay as a narrow band across the head of the Peninsula and the third lay over Central and Upper Burma. In two of these areas the deficiency in the mean temperature was small and unimportant, in no case amounting to 1°, but in the Punjab area the deficiency was moderate or slight, as is shown in the following table :—

PROVINCE.	STATION.	MEAN DAILY TEMPERATURE. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
		°	°	°
PUNJAB	Ludhiana	85·0	87·0	—2·0
	Umballa	84·0	85·0	—1·0

Over the whole of the remainder of India the temperature on the mean of the month was in excess of the average. The excess was more then 2° over Sind, Western Rajputana and the South Punjab, as well as locally at Agra. This is shown below :—

PROVINCE.	STATION.	MEAN DAILY TEMPERATURE. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
		°	°	°
WESTERN RAJPUTANA.	Bikaner	91·7	87·2	+4·5
SIND	Jacobabad	95·4	92·5	+2·9
	Kurrachee	86·6	83·8	+2·8
	Hyderabad (Sind)	89·5	86·9	+2·6
SOUTH PUNJAB	Mooltan	93·5	91·1	+2·4
	Montgomery	93·8	91·5	+2·3
NORTH-WESTERN PROVINCES AND OUDH.	Agra	86·8	84·5	+2·3

It was more than 2° also in the submontane regions of the North-Western Provinces and of Bengal, as well as in East Bengal and in Cachar. The following gives comparative data :—

PROVINCE.	STATION.	MEAN DAILY TEMPERATURE. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
		°	°	°
NORTH-WESTERN PROVINCES.	Bahraich	86·1	83·6	+2·5
BENGAL	Jalpaiguri	84·9	81·9	+3·0
	Bogra	85·1	83·0	+2·1
	Mymensingh	84·5	82·4	+2·1
CACHAR	Silchar	86·0	83·0	+3·0

Finally, it was more than 2° over the Carnatic as well as locally at Cochin. The following gives comparative data :—

STATION.	MEAN DAILY TEMPERATURE. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	°	°	°
Madras	89·2	85·5	+3·7
Cuddalore	88·0	85·1	+2·9
Nellore	89·4	86·7	+2·7
Trichinopoly	88·7	86·2	+2·5
Salem	83·9	81·6	+2·3
Cochin	80·8	78·7	+2·1

In all other parts of the country the mean temperature exceeded the normal by slight or small amounts.

The mean temperature of the month was nearly normal over Baluchistan and at the hill stations in the North-Western Himalayas, but at the Himalayan stations from Mussooree eastward to Darjeeling the heat was from 1° to 1°·3 above the normal. The mean temperature was also above the normal at Mount Abu, but at Pachmarhi and Wellington the heat was about the average.

The chief features of the mean temperature conditions of the month were as follows :—

1. The day temperature was in defect and the night temperature was about normal within a broad band running across the head of the Peninsula and thence east-ward into Burma. Consequently the mean temperature of the month was normal or in slight defect over that region.

2. The day temperature was considerably below the normal and the night temperature slightly above the normal over the East Punjab, hence the mean temperature was slightly below the normal over that area.

3. Both the day and the night temperatures and consequently also the mean temperature were in excess over the remainder of India.

4. The excess, both by day and night, was considerable over Sind, Rajputana and the adjoining districts, as well as over part of North-East India and over the Carnatic.

5. The mean temperature was nearly normal over Baluchistan and the Western Himalayas and above the normal over the Central and Eastern Himalayas.

The following gives temperature data of the month for 56 meteorological divisions of the Empire :—

Province.	Division.	Actual Temperature.					Variation from normal of month.		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	84·2	75·8	80·0	8·4	16·3	+0·2	+1·7	—1·5
	Lower Burma (Deltaic)	84·8	77·1	81·0	7·7	14·9	+0·4	+1·0	—0·6
	Central do.	87·9	75·5	81·8	12·4	20·3	+0·4	+0·1	+0·3
	Upper do.	89·7	76·7	83·2	12·9	22·0	—0·4	+0·8	—1·2
	Arakan	85·0	74·9	80·0	10·1	17.4	...	...	...
Bengal and Assam	Eastern Bengal	88·8	78·6	83·8	10·2	17·5	+2·1	+1·4	+0·7
	Assam (Surma)	94·0	77·9	86·0	16·1	27·3	+4·8	+1·2	+3·6
	Do. (Brahmaputra)	89·3	79·3	84·3	10·0	19·1	+1·1	+1·3	—0·2
	Deltaic Bengal	89·3	79·3	84·4	10·0	17·5	+1·1	+0·9	+0·2
	Central do.	89·9	79·2	84·6	10·7	17·7	+1·7	+1·2	+0·5
	North do.	91·5	79·0	85·3	12·6	20·1	+3·5	+2·4	+1·1
	Bengal Hills	69·2	54·5	61·9	14·7	23·8	+1·3	+1·2	+0·1
	Orissa	87·8	79·0	83·4	8·7	17·0	0	+0·7	—0·7
	Chota Nagpur	86·9	75·5	81·2	11·4	17·6	0	+0·7	—0·7
	South Bihar	90·6	79·3	85·0	11·3	19·3	+1·2	+0·1	+1·1
	North do.	90·5	79·7	85·1	10·8	19·4	+1·6	+1·9	—0·3
North-Western Provinces and Oudh.	North-Western Provinces (East)	90·7	79·6	85·2	11·1	22·8	+0·9	+1·0	—0·1
	Oudh (South)	91·5	79·6	85·6	11·9	22·0	+0·9	+1·1	—0·2
	Do. (North)	92·2	80·0	86·1	12·2	20·6	+2·9	+2·1	+0·8
	North-Western Provinces (Central)	90·3	79·0	84·7	11·3	22·2	+0·9	+1·3	—0·4
	Do. do. (West)	92·4	79·9	86·2	12·5	21·5	+1·9	+1·4	+0·5
	Do. do. (East Submontane)	91·6	79·8	85·7	11·8	22·8	+1·5	+0·9	+0·6
	Do. do. (West do.)	88·7	76·8	82·8	11·9	20·6	+0·5	+0·7	—0·2
	Do. do (Hills)	70·1	60·8	65·5	9·3	16·4	+0·1	+1·2	—1·1
Punjab	Punjab (South-East)	91·4	80·3	85·9	11·1	23·1	—0·2	+1·2	—1·4
	Do. (South)	93·6	80·3	87·0	13·3	27·0	—0·2	+2·4	—2·6
	Do. (Central)	96·7	81·1	88·9	15·6	32·2	+0·7	+2·2	—1·5
	Do. (Submontane)	91·7	79·3	85·5	12·4	24·0	—2·1	+1·4	—3·5
	Do. (Hills)	82·9	62·3	72·6	20·6	35·5	—0·2	+0·8	—1·0
	Do. (North)	97·5	78·4	88·0	19·2	35·5	+1·3	+1·9	—0·6
	Do. (West)	102·5	83·3	93·0	19·3	35·0	+2·0	+2·0	0
Bombay and Malabar Coast Districts (Madras).	Malabar	84·2	75·5	79·8	8·7	13·1	+2·0	+1·5	+0·5
	Madras (South Central)	90·6	73·4	82·0	17·2	23·0	+0·7	+2·2	—1·5
	Coorg	69·5	63·5	66·6	6·0	13·3	—1·0	+1·4	—2·4
	Mysore	81·7	67·1	74·4	14·6	22·8	+0·6	+0·9	—0·3
	Konkan	83·5	76·5	80·0	7·0	11·3	+0·6	+1·1	—0·5
	Bombay Deccan	83·0	69·8	76·4	13·3	21·1	+0·1	+0·8	—0·7
	Hyderabad (North)	85·2	63·1	74·2	22·2	31·0	...	...	...
	Khandesh	84·8	71·1	78·0	13·7	25·3	—0·4	+0·9	—1·3
Central Provinces and Berar.	Berar	86·2	73·0	79·6	13·2	22·3	—0·6	+0·1	—0·7
	Central Provinces (West)	85·4	74·8	80·1	10·5	18·9	—0·7	+0·8	—1·5
	Do. (Central)	84·2	74·2	79·2	10·0	19·3	—0·7	+0·9	—1·6
	Do. (East)	86·4	76·1	81·3	10·3	17·6	—0·5	+0·1	—0·6
Bombay (North)	Gujarat	86·4	77·1	81·8	9·3	15·9	—1·4	+0·6	—2·0
	Kathiawar and Cutch	86·3	76·6	81·4	9·7	17·8	—0·9	+0·5	—1·4
	Sind	99·2	81·7	90·5	17·6	31·5	+3·2	+2·3	+0·9
	Baluchistan Hills	95·6	63·2	79·4	32·4	47·4	+2·0	+1·2	+0·8
Rajputana and Central India.	Central India (East)	84·5	75·0	79·8	9·5	19·0	—0·8	+1·1	—1·9
	Rajputana (East), Central India (West)	88·3	77·0	82·7	11·2	21·5	+0·4	+2·3	—1·9
	Do. (West)	96·8	80·7	88·8	16·1	31·5	+3·7	+5·3	—1·6
Madras	East Coast (North)	89·4	79·9	84·2	10·5	21·1	+1·1	+0·3	+0·8
	Hyderabad (South)	87·6	72·9	80·3	14·7	25·5	+0·9	+1·5	—0·6
	Madras (Central)	92·8	75·9	84·4	16·9	25·6	+0·4	+0·8	—0·4
	East Coast (Central)	95·5	79·8	87·7	15·8	28·2	+2·4	+1·8	+0·6
	Do. (South)	97·4	79·7	88·7	17·7	26·9	+3·5	+2·5	+1·0
	Madras (South)	95·1	76·3	85·8	18·8	25·9	+1·3	+0·9	+0·4

The temperature changes from day to day in August 1900, were, as is usual in that month, determined by the occurrence and distribution of the rainfall. The changes in the coast districts are almost always small, but in the interior and more especially in the interior of North-West India the occurrence of rain occasions a large reduction of temperature and its discontinuance a large and rapid increase. The following gives a brief statement of the more important changes in the temperature conditions during the month :—

Temperature at the commencement of the month was below the normal over Burma, Madras, across the head of the Peninsula and in the Punjab, and was in excess over the remainder of India. A depression was entering Orissa on the 1st and giving heavy rain to South-West Bengal and the central parts of the country. The following gives variation data for the different divisions of India for the 24 hours ending at 8 A.M. on the 1st :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 1st August.	Mean minimum temperature, 1st August.	Mean daily temperature, 1st August.
	°	°	°
Burma	—2·6	—0·3	—1·5
Assam	+4·6	—0·9	+1·9
Bengal	+0·5	+0·8	+0·7
Orissa	—1·7	—1·0	—1·4
Bihar	+1·3	+0·1	+0·7
Chota Nagpur	—1·3	+0·2	—0·6
North-Western Provinces and Oudh	+1·6	+1·1	+1·4
Punjab	—4·2	—1·8	—3·0
Sind	+5·2	+1·6	+3·4
Rajputana	+2·4	+1·9	+2·2
Gujarat	—2·8	+0·1	—1·4
Central India	+1·5	+2·7	+2·1
Central Provinces	+1·5	+0·7	+1·1
Berar	—1·7	—0·7	—1·2
West Coast	—0·3	+1·3	+0·5
Bombay Deccan	—5·6	—0·1	—2·9
Mysore	—2·1	—0·3	—1·2
Madras Coast	—3·8	—3·1	—3·5
Madras Deccan	—12·0	—1·8	—6·9
South India	—1·2	+1·5	+0·2

The low temperature area, which the above data show lying over Madras and the central parts of the country, slowly extended northward through Chota Nagpur, etc. into the North-Western Provinces and Bengal. This movement is shown by the following comparative data for the Central Provinces, the North-Western Provinces, Orissa, Chota Nagpur, Bihar and Bengal, from the 1st to the 7th :—

PROVINCE OR DIVISION.	VARIATION 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.	7th August.
	°	°	°	°	°	°	°
Central Provinces	+1·1	—1·3	—0·9	+0·3	+2·1	+0·2	+0·9
North-Western Provinces and Oudh.	+1·4	+2·1	+2·0	+1·8	+2·4	+3·0	+2·7
Orissa	—1·4	—0·7	+0·7	+1·5	—3·4	—1·4	—1·0
Chota Nagpur	—0·6	—3·8	—1·8	+0·7	+1·7	+0·4	+1·2
Bihar	+0·7	—0·1	—0·4	+0·3	+0·7	+1·0	+0·7
Bengal	+0·7	—0·6	—0·2	—0·4	0	+0·5	+0·4

The actual progress of the area is perhaps better shown by giving, day by day, the two stations at which the variations from the normal were greatest from the 1st to the 7th :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
1st August	Masulipatam	—12·2	—6·6	—9·4
" "	Bellary	—14·8	—1·6	—8·2
2nd "	Raipur	— 7·7	—2·2	—5·0
" "	Sambalpur	— 7·0	—1·7	—4·4
3rd "	Chaibassa	— 8·6	—1·8	—5·2
" "	Raipur	— 5·9	—1·0	—3·5
4th "	Seoni	— 4·2	+1·7	—1·3
" "	Benares	— 2·3	+0·6	—0·9
5th "	False Point	— 5·2	—2·3	—3·8
" "	Saugor Island	— 5·7	—1·7	—3·7
6th "	Cuttack	— 4·2	—2·4	—3·3
" "	False Point	— 3·5	+1·6	—1·0
7th "	Mymensingh	— 3·8	+0·3	—1·8
" "	Jalpaiguri	— 1·6	+0·7	—0·5

As this area of low temperature progressed northward there occurred a brisk rise of temperature over the Peninsula and from the 4th the heat was greater than usual,

in all the Peninsular divisions. The following gives comparative data for these divisions from the 1st to the 7th :—

Province or Division.	Variation 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.	7th August.
	°	°	°	°	°	°	°
Central Provinces.	+1·1	−1·3	−0·9	+0·3	+2·1	+0·2	+0·9
Berar . .	−1·2	−2·7	−0·6	+0·4	+2·2	+2·0	+1·1
West Coast .	+0·5	+1·6	+1·1	+1·8	+0·9	+1·6	+1·3
Bombay Deccan.	−2·8	−2·8	−0·8	+0·6	+1·2	+1·9	+1·4
Mysore . .	−1·2	+1·2	+0·5	+1·5	−0·2	+1·0	+1·6
Madras Coast.	−3·5	+0·5	+2·6	+3·0	+2·1	+2·2	+1·7
Madras Deccan	−6·9	−1·9	+0·2	+0·9	+1·6	+2·8	+1·8
South India .	+0·2	+0·1	+0·9	+1·4	+1·0	+1·5	+2·4

A sudden and heavy burst of rain occurred over Gujarat during the first four days of the month and was succeeded by a large reduction of temperature. The following gives data for the stations in this division from the 1st to the 7th in illustration:—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
1st August .	Ahmedabad . .	+ 1·8	+2·6	+2·2
,, ,, .	Rajkot . . .	− 8·1	−0·5	−4·3
,, ,, .	Veraval . . .	− 1·8	−0·8	−1·3
,, ,, .	Bhavnagar Para .	− 6·2	−1·0	−3·6
,, ,, .	Bhuj . . .	+ 1·2	+1·4	+1·3
2nd ,, .	Ahmedabad . .	− 2·1	+2·3	+0·1
,, ,, .	Rajkot . . .	− 3·0	+2·4	−0·3
,, ,, .	Veraval . . .	− 2·3	−1·4	−1·9
,, ,, .	Bhavnagar Para .	− 8·2	−1·6	−4·9
,, ,, .	Bhuj . . .	+ 1·7	+2·1	+1·9
3rd ,, .	Ahmedabad . .	+ 4·1	+2·4	+3·3
,, ,, .	Rajkot . . .	− 6·8	−2·4	−4·6
,, ,, .	Veraval . . .	− 3·3	−3·9	−3·6
,, ,, .	Bhavnagar Para .	− 9·7	−3·0	−6·4
,, ,, .	Bhuj . . .	+ 6·0	−2·9	+1·6
4th ,, .	Ahmedabad . .	− 1·8	−2·0	−1·9
,, ,, .	Rajkot . . .	−11·3	−2·4	−6·9
,, ,, .	Veraval . . .	− 3·3	−3·9	−3·6
,, ,, .	Bhavnagar Para .	− 5·8	−3·0	−4·4
,, ,, .	Bhuj . . .	− 6·6	−1·9	−4·3
5th ,, .	Ahmedabad . .	− 3·1	+0·7	−1·2
,, ,, .	Rajkot . . .	− 7·3	−1·7	−4·5
,, ,, .	Veraval . . .	− 2·3	−3·4	−2·9
,, ,, .	Bhavnagar Para .	− 5·3	−3·0	−4·2
,, ,, .	Bhuj . . .	+ 5·2	−0·9	+2·2
6th ,, .	Ahmedabad . .	+ 1·5	+2·2	+1·9
,, ,, .	Rajkot . . .	+ 0·1	+1·3	+0·7
,, ,, .	Veraval . . .	− 2·4	−1·7	−2·1
,, ,, .	Bhavnagar Para .	− 2·5	−0·7	−1·6
,, ,, .	Bhuj . . .	+ 1·5	+2·1	+1·8
7th ,, .	Ahmedabad . .	− 3·4	+1·7	−0·9
,, ,, .	Rajkot . . .	− 3·2	+1·3	−1·0
,, ,, .	Veraval . . .	− 1·5	+0·4	−0·6
,, ,, .	Bhavnagar Para .	− 3·1	−0·6	−1·9
,, ,, .	Bhuj . . .	− 1·8	+0·3	−0·8

The reduction of temperature was, as usual, most marked in the day temperatures and the following variations exceeding 5° were reported :—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
1st August .	Rajkot . . .	80·4	88·5	− 8·1
,, ,, .	Bhavnagar Para .	84·5	90·7	− 6·2
2nd ,, .	Do. .	82·5	90·7	− 8·2
3rd ,, .	Do. .	80·5	90·2	− 9·7
,, ,, .	Rajkot . . .	81·9	88·7	− 6·8
4th ,, .	Do. .	77·4	88·7	−11·3
,, ,, .	Bhuj . . .	81·3	87·9	− 6·6
,, ,, .	Bhavnagar Para .	84·5	90·3	− 5·8
5th ,, .	Rajkot . . .	81·4	88·7	− 7·3
,, ,, .	Bhavnagar Para .	85·5	90·8	− 5·3

As was noticed above, the mean temperature at the commencement of the month was very low over the Punjab, while it was more or less excessive over Sind, Rajputana and the adjoining districts of the North-Western Provinces and of Central India. After the 1st the temperature gradually rose so that the area of excessive temperature extended and intensified and spread over

the whole of Northern India. The following gives comparative data for the different divisions of North-West India from the 1st to the 7th:—

PROVINCE OR DIVISION.	VARIATION 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.	7th August.
	°	°	°	°	°	°	°
N.-W.-P. and Oudh.	+1·4	+2·1	+2·0	+1·8	+2·4	+3·0	+2·7
Punjab . .	−3·0	−3·5	−2·8	+0·1	+3·2	+4·1	+3·0
Central India .	+2·1	+3·6	+2·9	+1·3	+1·7	+0·4	+1·1
Rajputana .	+2·2	+3·6	+4·6	+4·6	+4·3	+4·8	+4·3
Sind . .	+3·4	+5·2	+4·1	+4·0	+6·0	+6·4	+7·1

The hottest days were the 6th and 7th when the following high maximum or day temperatures were recorded in the north-west:—

DATE.	STATION.	MAXIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
6th August . .	Dera Ismail Khan .	108·2	100·7	+ 7·5
" " . .	Montgomery . .	108·0	100·3	+ 7·7
" " . .	Khushab . . .	106·3	99·7	+ 6·6
" " . .	Peshawar . . .	106·0	100·8	+ 5·2
" " . .	Bikaner . . .	104·6	96·8	+ 7·8
" " . .	Hyderabad (Sind) .	103·1	95·0	+ 8·1
" " . .	Sirsa . . .	101·3	98·3	+ 3·0
7th " . .	Jacobabad . .	116·1	103·9	+12·2
" " . .	Mooltan . . .	108·4	100·7	+ 7·7
" " . .	Lahore . . .	100·1	96·8	+ 3·3

On the 8th and 9th the temperature distribution, relatively to the normal, was very irregular, the principal features of the distribution at this time having been high temperatures in Sind, Rajputana and Madras and low temperatures in Bombay and Assam. The following give comparative data for all the divisions of India on the 8th in illustration:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 8th August.	Mean minimum temperature, 8th August.	Mean daily temperature, 8th August.
	°	°	°
Burma	+2·1	+0·7	+1·4
Assam	0	−0·1	−0·1
Bengal	+1·4	+1·3	+1·4
Orissa	−0·8	+0·5	−0·2
Bihar	+0·4	+0·3	+0·4
Chota Nagpur . . .	+1·1	+1·3	+1·2
North-Western Provinces and Oudh.	+1·1	+0·8	+1·0
Punjab	−1·0	−0·5	−0·8
Sind	+7·0	+5·4	+6·2
Rajputana	+2·3	+4·8	+3·6
Gujarat	−1·7	+0·9	−0·4
Central India	−1·3	+1·9	+0·3
Central Provinces . . .	+1·4	+1·3	+1·4
Berar	−1·1	+0·2	−0·5
West Coast	+1·0	+2·6	+1·8
Bombay Deccan . . .	−0·8	+1·5	+0·4
Mysore	+2·5	+2·0	+2·3
Madras Coast	+1·9	+0·5	+1·2
Madras Deccan . . .	+1·7	+1·8	+1·8
South India	+0·8	+2·0	+1·4

On the 10th a sudden and large fall of temperature in the Punjab and the adjoining districts reduced temperature to below the normal over the greater part of North-West India and at the same time transferred the area of greatest excess to the North-Western Provinces and Bengal. In the East Punjab the fall of temperature ranged from 2½° to 9° and the following low day temperatures were recorded:—

STATION.	MAXIMUM TEMPERATURE.		
	Actual, 10th August.	Normal, 10th August.	Variation of actual from normal, 10th August.
	°	°	°
Ludhiana	77·6	94·9	−17·3
Umballa	80·0	91·9	−11·9
Sirsa	86·3	97·5	−11·2
Delhi	82·7	91·4	− 8·7
Rawalpindi	85·1	93·4	− 8·3
Lahore	87·6	95·7	− 8·1

On the other hand, there had occurred a decided rise of temperature over the North-Western Provinces and Bengal and the mean temperature on the 10th, 11th and 12th exceeded the normal over North-East India. Comparative data for this area for these three days are given below:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	10th August.	11th August.	12th August.
	°	°	°
North-Western Provinces	+2·4	+3·2	+2·1
Chota Nagpur	+1·3	+1·3	—1·0
Bihar	+3·8	+3·6	+1·9
Bengal	+4·0	+2·4	+1·5
Assam	+5·1	+4·6	+3·0

On the 10th an area of deficient temperature appeared over North Madras and the Deccan. This area was stationary over this region on the 11th and 12th, moved north-westward into the Central Provinces on the 13th, into the west of the Central Provinces on the 14th, reached Gujarat on the 15th and coalesced with a low temperature area over North-West India on the 16th. The progress of this area of relatively low temperature is shown in the following table which gives, day by day, the two stations at which the largest negative variations were reported from the 10th to the 16th:—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
10th August	Waltair	— 4·5	—2·6	—3·6
	Kurnool	— 3·6	—1·6	—2·6
11th "	Waltair	— 7·8	—3·1	—5·5
	Masulipatam	— 7·8	—2·7	—5·3
12th "	Waltair	— 9·1	—3·5	—6·3
	Chanda	— 9·0	—0·9	—5·0
13th "	Chanda	—12·4	—4·0	—8·2
	Khandwa	—11·2	+1·1	—5·1
14th "	Amraoti	—10·9	—1·1	—6·0
	Na	—10·0	—1·7	—5·9
15th "	Rajkot	— 7·6	—2·8	—5·2
	Bhavnagar Para	— 9·1	—0·3	—4·7
16th "	Bhavnagar Para	—11·6	—0·6	—6·1
	Sirsa	—10·2	—1·8	—6·0

In the meantime a brisk recovery of temperature had occurred over North-West India over the greater part of which from the 13th to the 16th the mean temperature exceeded the normal. This is shown below:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	13th August.	14th August.	15th August.	16th August.
	°	°	°	°
North-Western Provinces and Oudh.	+3·2	+2·8	+1·7	+1·3
Punjab	+1·4	+2·0	—1·0	—3·9
Central India	+0·1	+1·2	—0·7	+1·2
Rajputana	+2·3	+3·1	+2·0	—3·4
Sind	+3·1	+4·8	+3·5	+2·0

A fresh depression with its accompanying heavy rainfall was lying over the north of the Bay on the 17th when temperature fell to below the normal in Orissa. The storm and rainfall advanced west-north-westward as far as Rajputana. The rainfall occasioned a marked reduction of temperature, as is shown by the following table which gives comparative temperature data for Bengal, the North-Western Provinces, the Central Provinces, Central India, Gujarat and Rajputana from the 17th to the 23rd:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	17th August.	18th August.	19th August.	20th August.	21st August.	22nd August.	23rd August.
	°	°	°	°	°	°	°
Bengal	+4·0	+2·5	+0·6	+1·6	+2·8	+2·5	+1·5
North-Western Provinces and Oudh.	+1·7	+1·7	+1·5	+1·8	+1·4	+0·4	—0·4
Central Provinces.	+0·4	+0·5	+0·5	—1·0	—3·9	—1·5	+0·3
Central India	—0·3	+0·9	+0·8	—0·3	—3·0	—3·9	—1·6
Gujarat	—1·4	+0·6	+1·0	+1·8	+1·5	—1·0	—0·3
Rajputana	—3·4	—2·2	+0·5	+2·9	+4·4	+3·4	+1·2

The following gives data for the two stations in these

areas at which the reduction of temperature was greatest from the 17th to the 23rd:—

Date.	Station.	Variation from normal of Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
17th August.	False Point	− 2·7	+0·6	−1·1
	Cuttack	− 3·1	−1·5	−0·8
18th "	Cuttack	− 6·7	−1·2	−4·0
	False Point	− 5·5	−2·6	−4·1
19th "	Chaibassa	− 6·7	−0·4	−3·6
	False Point	− 6·5	+0·2	−3·2
20th "	Ranchi	− 6·2	−0·6	−3·4
	Hoshangabad	− 5·5	−0·4	−3·0
21st "	Seoni	−13·3	−1·7	−7·5
	Khandwa	−10·1	−1·9	−6·0
22nd "	Neemuch	−10·6	−2·9	−6·8
	Indore	− 7·9	−2·0	−5·0
23rd "	Mainpuri	− 5·6	−0·8	−3·2
	Cawnpore	− 4·9	−0·6	−2·8

On the 17th temperature fell fast in the north-west and the reduction of temperature thus brought about, continued during the 18th, but on the 19th temperature increased in a marked manner and from that date until the close of the month was in considerable to large excess of the normal, over that region. The following gives comparative data for each alternate day from the 17th to the 31st for the different divisions of North-Western India:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 17th Aug.	19th Aug.	21st Aug.	23rd Aug.	25th Aug.	27th Aug.	29th Aug.	31st Aug.
	°	°	°	°	°	°	°	°
Sind	+2·7	+2·1	+2·8	+3·1	+1·2	+1·4	+0·3	+1·0
Gujarat	−1·4	+1·0	+1·5	−0·3	−0·7	+0·5	+1·4	+0·4
Rajputana	−3·4	+0·5	+4·4	+1·2	+2·0	+3·0	+3·8	+2·4
Central India	−0·3	+0·8	−3·0	−1·6	−1·5	+0·5	−3·4	−2·5
Punjab	−6·5	+1·3	+5·2	+4·9	+4·0	+2·4	+5·1	+5·9
North-Western Provinces and Oudh.	+1·7	+1·5	+1·4	−0·4	−3·0	−0·2	−0·5	−0·5

Excessive temperatures prevailed equally steadily over the Peninsula from the 17th onward. This is shown in the following table which gives comparative data for the Peninsular divisions for each alternate day from the 17th to the 31st:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 17th Aug.	19th Aug.	21st Aug.	23rd Aug.	25th Aug.	27th Aug.	29th Aug.	31st Aug.
	°	°	°	°	°	°	°	°
Central Provinces	+0·4	+0·5	−3·9	+0·3	+0·7	+1·0	−1·8	−0·1
Berar	−1·1	+0·1	−3·3	+0·5	+1·1	+1·7	+0·9	+2·2
West Coast	+1·0	+1·4	+1·4	+2·5	+0·9	+1·4	+1·9	+1·2
Bombay Deccan	−0·7	+0·7	+1·2	+0·3	+1·1	+0·4	+1·8	+2·3
Mysore	+0·7	+0·6	+0·7	+1·5	+1·3	−0·2	+2·0	+2·1
Madras Coast	+3·8	+2·0	+3·3	+2·6	+3·9	+2·5	+2·4	+1·6
Madras Deccan	+2·4	+1·9	+1·8	+2·5	+3·0	+2·3	+4·1	+3·5
South India	+2·4	+1·6	+1·7	+1·8	+3·0	+3·4	+1·5	+1·4

It will be remembered that on the 10th, 11th and 12th the mean temperature rose to above the normal in North-East India. This condition held for the next ten days and was large on the 17th. The following gives comparative data for the North-Western Provinces, Bengal and Assam from the 13th to 22nd:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 13th Aug.	14th Aug.	15th Aug.	16th Aug.	17th Aug.	18th Aug.	19th Aug.	20th Aug.	21st Aug.	22nd Aug.
	°	°	°	°	°	°	°	°	°	°
N.-W.-P. & Oudh.	+3·2	+2·8	+1·7	+1·3	+1·7	+1·7	+1·5	+1·8	+1·4	+0·4
Bihar	+2·3	+2·6	+2·9	+3·4	+4·7	+2·7	+2·0	−0·4	+1·5	+3·4
Chota Nagpur.	−1·8	+0·6	+1·7	+3·0	+2·8	+2·8	−1·5	−1·9	−0·5	+0·5
Orissa	+0·7	+2·0	+2·1	−0·2	−0·1	−3·0	−3·0	+1·9	+2·1	+2·6
Bengal	+1·7	+1·7	+2·4	+3·7	+4·0	+2·5	+0·6	+1·6	+2·8	+2·5
Assam	+3·3	+0·6	+2·8	+4·8	+5·8	+2·7	+4·2	+3·2	+2·3	−0·7

On the 24th a fresh low temperature area appeared over Tenasserim. It passed through Burma on the 25th and 26th and appeared over Orissa on the 27th. It reached the east of the Central Provinces on the 28th, the west of the Central Provinces and the North-Western Provinces on the 29th and Central India and Rajputana on the 30th and 31st and accompanied the rainfall which attended a cyclonic storm along this path. The following table shows the advance of this area. It gives comparative data for Burma, Assam, the Bengal divisions, the Central

Provinces, the North-Western Provinces, Central India and Rajputana from the 24th to the 31st:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	24th Aug.	25th Aug.	26th Aug.	27th Aug.	28th Aug.	29th Aug.	30th Aug.	31st Aug.
	°	°	°	°	°	°	°	°
Burma	+2·0	−0·1	−0·4	+1·0	+0·4	−1·6	−2·3	−0·3
Assam	−0·6	+2·3	+4·1	+2·1	−0·7	−0·1	−0·7	+0·7
Bengal	+0·9	+2·9	+3·0	0	+0·6	+1·7	+1·1	+0·8
Bihar	−1·0	−1·7	+1·5	−0·3	−0·3	+0·7	+0·9	−0·7
Chota Nagpur	+1·5	+1·3	+0·9	−0·9	−2·0	+0·4	+1·5	+1·7
Orissa	+1·7	+2·9	+2·8	−3·0	+0·1	+1·5	+2·9	+0·5
Central Provinces	+1·1	+0·7	+1·4	+1·0	−1·0	−1·8	−1·8	−0·1
North-Western Provinces and Oudh.	−0·6	−3·0	−2·6	−0·2	−0·3	−0·5	−0·1	−0·5
Central India	−0·6	−1·5	−0·9	+0·1	+0·6	−3·4	−2·6	−2·5
Rajputana	+2·3	+2·0	+1·2	+3·0	+2·8	+3·8	+3·2	+2·4

The following table gives, day by day, for the same interval, comparative data for the two stations at which the variation from the normal was largest:—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
24th August	Tavoy	−3·8	+1·4	−1·2
	Moulmein	−2·0	+0·8	−0·6
25th "	Yamethin	−10·8	+0·1	−5·4
	Toungoo	−8·1	−1·0	−4·6
26th "	Diamond Island	−9·1	+0·6	−4·3
	Toungoo	−4·1	−1·6	−2·9
27th "	Balasore	−5·0	−2·4	−3·7
	False Point	−4·8	−0·8	−2·8
28th "	Raipur	−8·9	−1·0	−5·0
	Sambalpur	−6·8	−2·4	−4·6
29th "	Jubbulpore	−8·7	−2·4	−5·6
	Hoshangabad	−7·6	−3·4	−5·5
30th "	Neemuch	−7·2	−0·8	−4·0
	Indore	−6·3	+0·2	−3·1
31st "	Neemuch	−8·8	−2·1	−5·5
	Ajmer	−3·0	+2·1	−0·5

A fresh low temperature area appeared over Burma on the 30th and reached the Bay on the 31st. The following gives variation data for Burma for these two days:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	30th August.	31st August.
	°	°
Burma	−2·3	−0·3

The above review shows that temperature was fairly steadily excessive over Sind and Rajputana and over Madras during the greater part of the month and was unsteady or low elsewhere. A partial break in the rains occurred over North-Western, Western and Southern India from the 19th to the end of the month resulting in steadily excessive temperature over these areas. The following gives the variations of the mean temperature from the normal, week by week, during the month and for the whole month and exhibits the general changes described above:—

Province or Division.	Variation from normal of mean temperature for week ending					
	4th August.	11th August.	18th August.	25th August.	1st Sept.	For whole month, August 1900.
	°	°	°	°	°	°
Burma	−0·3	+1·0	−0·2	+2·2	−0·5	+0·2
Assam	+0·9	+2·1	+3·3	+1·4	+0·7	+1·8
Bengal	+0·7	+1·6	+2·5	+1·8	+1·1	+1·6
Orissa	+1·0	−0·8	0	+1·6	+0·6	+0·4
Bihar	+0·1	+1·8	+2·9	+0·4	+0·3	+1·2
Chota Nagpur	+0·1	+1·1	+1·2	0	+0·5	+0·4
North-Western Provinces and Oudh.	+1·2	+2·4	+2·1	+0·2	−0·7	+1·1
Punjab	−0·5	+0·1	−1·6	+4·0	+4·2	+1·1
Sind	+3·9	+4·3	+2·7	+2·1	+1·0	+3·3
Rajputana	+3·9	+2·9	0	+2·4	+2·7	+2·2
Gujarat	−1·3	−1·0	−0·9	+0·2	+0·3	−0·3
Central India	+3·0	+1·3	+0·6	−1·4	−1·7	+0·2
Central Provinces	+1·3	+1·3	−0·3	−0·5	−0·4	0
Berar	+0·3	+0·4	−2·1	−0·4	+1·6	−0·3
West Coast	+0·9	+1·4	+0·9	+1·5	+1·2	+1·2
Bombay Deccan	−0·8	+0·6	−0·4	+1·0	+1·5	+0·4
Mysore	+0·5	+1·0	−0·1	+1·1	+1·1	+0·8
Madras Coast	0	+0·6	+2·0	+3·1	+2·4	+1·9
Madras Deccan	−1·7	+1·1	+1·3	+2·4	+3·3	+1·0
South India	+0·1	+1·1	+1·4	+2·0	+2·0	+1·5

Winds.

The monsoon currents blew very steadily throughout the month and were generally stronger than the average on both sides of India.

The winds were on the average of the month stronger and steadier than usual at the Bay Islands and at the stations on the Burma coast and this increased strength was particularly noticeable at the well exposed stations of Port Blair and Diamond Island. The following gives data for Port Blair and the Burma stations :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Port Blair	92	82	+10	380	242	+138
Rangoon	74	65	+ 9	121	110	+ 11
Diamond Island	81	78	+ 3	300	193	+107
Akyab	77	63	+14	81	85	— 4

The direction was very nearly normal, though at the Bay Islands there was somewhat more westing than usual. The following gives data in illustration :—

STATION.	MEAN WIND DIRECTION.		
	Actual, August 1900.	Normal, August.	Westerly deflection.
	°	°	°
Cocos Island	S 48 W	S 41 W	+ 7
Port Blair	S 68 W	S 49 W	+19
Rangoon	S 32 W	S 38 W	— 6
Diamond Island	S 52 W	S 45 W	+ 7
Akyab	S 3 E	S 1 E	— 2

In Bengal and Orissa the wind force was everywhere in excess of the average, but the wind was unsteady except at Chittagong. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August, 1900.
Chittagong	63	61	+ 2	200	142	+58
Calcutta	31	56	—25	124	115	+ 9
Saugor Island	34	57	—23	348	315	+33
False Point	50	53	— 3	252	238	+14

There was an abnormal amount of easting in the wind direction at Calcutta, but at the remaining stations in this division the wind, as at the Bay Islands, was more westerly than the normal. The following shows these variations :—

STATION.	MEAN WIND DIRECTION.	
	Actual, August 1900.	Normal, August.
	°	°
Chittagong	S 1 W	S 25 E
Calcutta	S 36 E	S 14 E
Saugor Island	S 24 W	S 13 W
False Point	S 63 W	S 47 W

At the inland stations of Bengal and over the east of the North-Western Provinces, the wind was stronger and steadier than usual except at Darbhanga and the direction was with the same exception more easterly than the average. The following gives data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Easterly deflection.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
				°	°	°			
Hazaribagh	16	8	+ 8	S 66 E	S 4 W	+70	210	185	+25
Darbhanga	56	60	— 4	S 68 E	S 77 E	...	80	111	—31
Allahabad	27	4	+23	N 83 E	N 16 E	+67	220	134	+86

In Upper India the variations of the wind from the normal were irregular except in the case of direction, the wind having been, as generally more easterly than the average in this, as in the other divisions of Northern India. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Easterly deflection.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
				°	°	°			
Dehra Dun	63	14	+49	S 67 E	S 26 W	+93	21	24	− 3
Roorkee .	32	22	+10	S 46 E	S 24 E	+22	72	58	+14
Meerut .	43	10	+33	S 70 E	S 55 E	+15	29	48	−19

In the Indus Valley the wind's velocity was low, relatively to the normal, while the steadiness was about the average. The following gives data:—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Peshawar .	55	51	+4	55	93	−38
Jacobabad .	50	59	−9	78	101	−23
Kurrachee .	86	88	−2	353	397	−44

The direction of the wind was approximately normal except at Peshawar where the wind was unusually northerly. Comparative data of direction are given below:—

Station.	Mean wind direction.	
	Actual, August 1900.	Normal, August.
	°	°
Peshawar	N 7 E	N 41 E
Jacobabad	S 48 E	S 44 E
Kurrachee	S 60 W	S 67 W

In Rajputana the velocity on the mean of the month was lower than usual while the steadiness was also less than the normal, more particularly at Jaipur where the percentage of steadiness was less than half the average. The direction was more northerly than usual in Eastern Rajputana and more westerly than usual in the south. The variations are shown in the following table:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
				°	°			
Jaipur . . .	19	43	−24	N 14 W	N 66 W	105	118	−13
Deesa . . .	69	75	− 6	S 76 W	S 52 W	249	278	−29

The following table gives average data of wind direction, velocity and steadiness for the Bay Islands, for Burma and for the different divisions of Northern India:—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
				°	°			
Bay Islands .	92	82	+10	S 68 W	S 49 W	380	242	+138
Burma . .	77	69	+ 8	S 27 W	S 28 W	167	129	+ 38
Bengal . .	43	58	−15	S 6 E	S 8 E	224	191	+ 33
Orissa . . .	50	53	− 3	S 63 W	S 47 W	252	238	+ 14
Chota Nagpur .	16	8	+ 8	S 66 E	S 4 W	210	185	+ 25
Bihar . . .	56	60	− 4	S 68 E	S 77 E	80	111	− 31
North-Western Provinces.	41	13	+28	S 69 E	S 40 E	86	66	+ 20
Punjab . .	40	29	+11	S 67 E	N 88 E	59	67	− 8
Sind . . .	68	74	− 6	S 10 W	S 10 W	216	249	− 33
Rajputana . .	44	59	−15	N 54 W	S 83 W	177	198	− 21

The variations from the normal which the above table discloses, are directly related to the abnormal pressure distribution of the month. The monsoon trough of low pressure lay, as pointed out in the pressure section, to the southward of its normal position, so that the winds to the south of the trough were abnormally westerly and those to

the north abnormally easterly. The trough, as has been shown above, extended from Lower Bengal through the north of the Central Provinces and Rajputana as far as Lower Sind, and it will be noticed that at all stations lying within the path of the trough, as for example Saugor Island, False Point, Jaipur, Jacobabad and Kurrachee, the steadiness of the wind was on the mean of the month below the normal.

Over the Deccan the wind was stronger than usual, the increased velocity being particularly marked at Poona. The following gives comparative data of the wind's velocity for this division :—

STATION.	MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Sholapur	297	296	+ 1
Poona	469	327	+142
Akola	254	200	+ 54
Buldana	262	195	+ 67
Khandwa	259	199	+ 60
Nagpur	286	191	+ 95
Hyderabad (Deccan)	240	203	+ 37

During the monsoon months the wind is ordinarily very steady over the Deccan, but in the month under review this high percentage of steadiness was generally exceeded. This is shown below :—

STATION.	MEAN STEADINESS.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.
Belgaum	89	89	0
Sholapur	73	81	— 8
Poona	93	89	+ 4
Akola	85	82	+ 3
Buldana	86	76	+10
Khandwa	87	84	+ 3
Nagpur	79	64	+15
Hyderabad (Deccan)	95	84	+11

The wind direction varied very slightly from the normal, but at some stations, as for example Buldana and Nagpur, the wind exhibited a tendency to draw into the south of west instead of the north of west. The following gives comparative data :—

STATION.	MEAN WIND DIRECTION.	
	Actual, August 1900.	Normal, August.
	°	°
Belgaum	N 84 W	S 71 W
Sholapur	S 83 W	W
Poona	S 81 W	S 85 W
Akola	N 84 W	N 67 W
Buldana	S 85 W	N 65 W
Khandwa	N 81 W	N 81 W
Nagpur	S 85 W	N 80 W
Hyderabad (Deccan)	N 82 W	N 81 W

The Bombay monsoon current was above its normal strength judging from the records of the wind velocity at the West coast stations. This was more especially the case at Karwar. The monsoon currents were hence abnormally strong on both sides of India, as is shown below :—

BAY CURRENT.				ARABIAN SEA CURRENT.			
	VELOCITY.				VELOCITY.		
STATION.	Average daily air movement, August 1900.	Normal daily air movement, August.	Percentage variation.	STATION.	Average daily air movement, August 1900.	Normal daily air movement, August.	Percentage variation.
	Miles.	Miles.			Miles.	Miles.	
Port Blair	380	242	+57	Bombay	398	376	+ 6
Diamond Island.	300	193	+55	Karwar	199	87	+129
Saugor Island	348	315	+10	Poona	469	327	+ 43
False Point	252	238	+ 6	Hassan	115	106	+ 8
				Mysore	359	333	+ 8
MEAN	320	247	+30		308	246	+25

The preceding data hence appear to show that the Bombay current was from 6 to 129 per cent. and the Bay current from 6 to 57 per cent. abovethe normal strength, while judging from the wind forces recorded on board vessels traversing the Arabian Sea the mean force was 4·1, while the normal force is 4·3 and in the Bay of Bengal the mean force was 4·4 and the normal force is 4·0.

The steadiness of the wind was above the average at Bombay and below it at Karwar, while the directions were approximately normal. The following gives com-

parative data of direction, steadiness and velocity for these two stations :—

Station.	Mean Steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of Actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Westerly deflection.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
				°	°	°			
Bombay .	90	83	+ 7	S 75 W	S 81 W	—6	398	376	+ 22
Karwar .	61	73	—12	W	N 87 W	+3	199	87	+112

In South India, as in the Deccan, the wind velocity was greater than usual while the general steadiness exceeded even the high percentage of steadiness which is usual at this season in this division. Comparative data are given below :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Salem . . .	63	75	—12	151	93	+58
Chitaldroog . .	87	87	0	287	259	+28
Bangalore . . .	92	90	+ 2	281	188	+93
Hassan . . .	90	89	+ 1	115	106	+ 9
Mysore . . .	90	86	+ 4	359	333	+26
Madras . . .	58	60	— 2	197	166	+31
Bellary . . .	95	87	+ 8	317	263	+54

The wind's direction in this division was very nearly normal, as is shown in the following table :—

Station.	Mean wind direction.	
	Actual, August 1900.	Normal, August.
	°	°
Salem	S 32 W	S 57 W
Chitaldroog	S 81 W	S 83 W
Bangalore	S 75 W	S 79 W
Hassan	S 89 W	N 87 W
Mysore	S 71 W	S 84 W
Madras	S 75 W	S 41 W
Bellary	N 88 W	N 87 W

The following gives mean data of direction, steadiness and velocity for the different divisions of the Peninsula :—

Province or Division.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Westerly deflection.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
				°	°	°			
Central Provinces.	83	74	+9	N 87 W	N 81 W	+ 6	273	195	+78
Berar .	86	79	+7	W	N 66 W	+24	258	198	+60
Bombay Deccan.	85	86	—1	S 88 W	S 82 W	+ 6	383	312	+71
West coast.	76	78	—2	S 81 W	S 87 W	— 6	299	232	+67
Mysore .	90	88	+2	S 79 W	S 86 W	— 7	261	222	+39
Madras Deccan.	95	86	+9	N 85 W	N 84 W	+ 1	279	233	+46
Madras coast.	58	60	—2	S 75 W	S 41 W	+34	197	166	+31
South India.	63	75	—12	S 32 W	S 57 W	—25	151	93	+58

The preceding data show increased velocity and generally increased steadiness of the wind in the different divisions of the Peninsula, while the directions were approximately normal, though there was increased westing in Berar and the Madras coast districts and decreased westing in South India.

In Baluchistan and at the northern hill stations the winds varied irregularly from the normal, but generally the winds in the latter region were steadier than usual. At the central hill stations the wind velocity was generally above the normal but both at Mount Abu and Chikalda the wind was abnormally unsteady. The following gives data of the velocity and steadiness for the central hill stations :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Mount Abu . . .	49	73	—24	243	254	— 11
Pachmarhi . . .	74	75	— 1	367	206	+161
Chikalda . . .	47	74	—27	276	266	+ 10

At Wellington in Southern India the wind was stronger, steadier and less westerly than usual. At Kodaikanal the wind was apparently much stronger as well as more

northerly than at Wellington. The following gives data for these two stations :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Wellington . .	64	51	+13	S 53° W	S 69° W	97	88	+9
Kodaikanal . .	71	...	...	N 48 W	...	347	...	...

At Perim the wind was stronger than usual and both at Perim and Aden was steadier than the average. At both stations the wind was more westerly than the normal. The following gives data :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Westerly deflection.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Perim .	69	51	+18	N 81° W	N 49° W	+32	372	333	+39
Aden .	74	70	+ 4	S 10 W	S 4 E.	+14	?	262	?

The winds were very nearly normal as regards direction, steadiness and velocity in the South-East Trades region. This is shown below :—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, August 1900.	Normal percentage, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Easterly deflection.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Zanzibar .	77	76	+ 1	S 6° E	S 9° E	—3	148	168	—20
Seychelles .	95	92	+ 3	S 39 E	S 36 E	+3	329	323	+ 6

The chief features of the mean air movement of the month were :—

(1) Increased air movement in the monsoon currents on both sides of India.

(2) More westerly winds than usual over nearly the whole of the Peninsula and the centre of the Bay.

(3) More easterly winds than usual over the Gangetic Plain.

(4) Unsteady winds within the monsoon trough of low pressure.

(5) Normal wind conditions over the South-East Trades region.

The following gives comparative data of the mean air movement for the various provinces based on Table I :—

PROVINCE.	MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Burma	113	98	+ 15
Assam	91	72	+ 19
Bengal	110	144	— 34
Orissa	175	146	+ 29
Bihar	127	74	+ 53
Chota Nagpur	137	180	— 43
North-Western Provinces and Oudh .	89	79	+ 10
Punjab	98	70	+ 28
Sind	223	281	— 58
Rajputana	163	187	— 24
Gujarat	190	322	—132
Central India	130	175	— 45
Central Provinces	175	130	+ 45
Berar	262	168	+ 94
West Coast	230	233	— 3
Bombay Deccan	394	334	+ 60
Mysore	257	182	+ 75
Madras Coast	221	158	+ 63
Madras Deccan	322	250	+ 72
South India	158	142	+ 16

Humidity and Cloud.

The air was damper than usual over a large area, including the greater part of North-Western and Central India and the Bombay Deccan. It was also damper than usual in Mysore. The excess of the relative humidity was

generally small or moderate, but equalled or exceeded 5 per cent. in the two areas for which comparative data are given below :—

Station.		Absolute humidity.			Relative humidity.		
		Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal August, 1900.
		"	"	"	%	%	
South-East Punjab.	Lahore .	·938	·868	+·070	72	65	+7
	Ludhiana	·939	·874	+·065	80	73	+7
South-West Rajputana.	Deesa .	·865	·800	+·065	80	75	+5

Over the whole of the remainder of the Indian area the air was drier than usual.

The vapour tension was in excess of the normal over the Bay Islands and Burma, but the temperature was also higher than the average, so that the relative humidity was normal or below the normal. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Port Blair . . .	·927	·893	+·034	84	86	—2
Rangoon . . .	·910	·888	+·022	90	90	0
Diamond Island .	·902	·873	+·029	86	87	—1

In Bengal and Orissa also the absolute humidity was in excess of the average, but in this division also temperature was in excess, and, except at False Point, the relative humidity was normal or slightly less than the normal. The following gives comparative data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Chittagong . .	·941	·906	+·035	86	87	—1
Calcutta . . .	·987	·957	+·030	87	88	—1
Saugor Island . .	·999	·988	+·011	87	87	0
False Point . .	·974	·933	+·041	88	85	+3

In the Gangetic Plain and West Bengal the vapour tension, except locally at Darbhanga, was about normal, but the mean temperature was in excess and the humidity was low. This is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Hazaribagh . .	·792	·799	—·007	83	85	—2
Darbhanga . .	1·000	·961	+·039	83	84	—1
Allahabad . .	·944	·946	—·002	81	83	—2

Within the area of heavy rain in Upper India the absolute humidity was everywhere in excess, while the temperature was lower than usual, so that the relative humidity was higher than usual, This was particularly the case at Lahore and Ludhiana, where the maximum abnormal dampness was reported. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Lahore . . .	·938	·868	+·070	72	65	+7
Ludhiana . .	·939	·874	+·065	80	73	+7

In the Indus Valley the air was everywhere damper than the normal, but the mean temperature was, at the same time, in moderate to considerable excess, and the relative humidity was normal or less than usual, more particularly at Kurrachee. The follwing gives comparative data:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Peshawar . .	·809	·775	+·034	61	61	0
Jacobabad . .	·869	·821	+·048	56	57	—1
Kurrachee . .	·914	·869	+·045	74	79	—5

In Rajputana the vapour tension was in large excess, so that, notwithstanding the higher temperature prevailing,

the relative humidity also exhibited an excess. The following table gives data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Jaipur . . .	·884	·809	+·075	78	76	+2
Deesa . . .	·865	·800	+·065	80	75	+5

The following table gives mean humidity and vapour tension data for the different provinces of Northern India and for Burma and the Bay Islands :—

PROVINCE OR DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1909.
	"	"	"	%	%	
Bay Islands .	·927	·893	+·034	84	86	—2
Burma . . .	·906	·880	+·026	88	89	—1
Bengal . . .	·976	·951	+·025	87	88	—1
Orissa . . .	·974	·933	+·041	88	85	+3
Chota Nagpur .	·792	·799	—·007	83	85	—2
Bihar . . .	1·000	·961	+·039	83	84	—1
North-Western Provinces.	·894	·870	+·024	81	81	0
Punjab . . .	·895	·839	+·056	71	66	+5
Sind . . .	·892	·845	+·047	65	68	—3
Rajputana . .	·875	·805	+·070	79	75	+4

The above data show that over nearly the whole of this large area the absolute humidity of the air was in excess of the normal. This excess was greatest in parts of Upper India and of Rajputana, where exceptionally heavy rain was also received. On the whole the mean temperature was higher than usual, except in parts of Upper India, and hence many of the divisions reported lower relative humidities than the average. This was particularly noticeable in the case of the Indus Valley, where, as shown above, the excess of the absolute humidity was considerable, but where also the relative humidity was normal or in slight to considerable defect.

Except at Sholapur and Hyderabad, the vapour tension over the Deccan was above the average, but the temperature was also in excess, and the relative humidity varied irregularly from the normal. Thus, at Sholapur, Buldana and Hyderabad, there was a deficiency, and at the remaining stations an excess. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual, from normal, August 1900.
	"	"	"	%	%	
Belgaum . .	·680	·656	+·024	90	89	+1
Sholapur . .	·645	·660	—·015	65	69	—4
Poona . . .	·706	·683	+·023	82	80	+2
Akola . . .	·784	·753	+·031	78	76	+2
Buldana . .	·698	·697	+·001	80	81	—1
Khandwa . .	·804	·766	+·038	80	79	+1
Nagpur . .	·817	·797	+·020	81	79	+2
Hyderabad (Deccan)	·706	·725	—·019	72	79	—7

Along the West Coast the vapour tension and the mean temperature were in slight excess and the relative humidity in slight defect of the normal. The following gives comparative data for this division :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Bombay . .	·889	·878	+·011	86	87	—1
Karwar . . .	·850	·828	+·022	85	87	—2

The mean absolute humidity and the relative humidity were in excess at Chitaldroog, Hassan and Mysore, while both were in defect at the remaining stations of South India. The deficiency was particularly marked at Madras, Salem and Bellary. The following gives comparative data for the stations in this division :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Salem . . .	·748	·752	—·004	66	73	—7
Chitaldroog . .	·652	·620	+·032	77	76	+1
Bangalore . .	·611	·612	—·001	74	78	—4
Hassan . . .	·634	·590	+·044	84	80	+4
Mysore . . .	·676	·630	+·046	79	75	+4
Madras . . .	·815	·818	—·003	63	72	—9
Bellary . . .	·577	·658	—·081	54	63	—9

At the hill stations the absolute humidity was almost everywhere above the average, and the relative humidity was likewise above, except at Simla and Ranikhet in the Western Himalayas, Katmandu and Darjeeling in the Eastern Himalayas and at Wellington in South India. The following gives comparative data for the hill stations :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Leh	·290	·264	+·026	51	48	+3
Srinagar	·722	·615	+·107	86	77	+9
Kailang	·388	·355	+·033	74	68	+6
Simla	·528	·528	0	91	91	0
Chakrata	·545	·541	+·004	93	92	+1
Ranikhet	·595	·572	+·023	88	88	0
Katmandu	·701	·677	+·024	80	81	−1
Darjeeling	·524	·507	+·017	93	95	−2
Mount Abu	·656	·609	+·047	94	91	+3
Pachmarhi	·687	·659	+·028	94	90	+4
Chikalda	·656	·643	+·013	95	94	+1
Wellington	·449	·437	+·012	74	76	−2

At Perim the air was much, and at Aden slightly, damper than usual. This is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Perim	·993	·804	+·189	72	58	+14
Aden	·791	·785	+·006	65	65	0

In the South-East Trades region the air was drier and the humidity less than usual. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Zanzibar	·680	·702	−·022	74	78	−4
Seychelles	·724	·725	−·001	74	75	−1

The following gives the mean humidity conditions for the different divisions of the Peninsula :—

Province or Division.	Mean absolute humidity.			Mean relative humidity.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
	"	"	"	%	%	
Central Provinces	·811	·782	+·029	81	79	+2
Berar	·741	·725	+·016	79	78	+1
Bombay Deccan	·677	·666	+·011	79	79	0
West Coast	·870	·853	+·017	86	88	−2
Mysore	·643	·613	+·030	79	78	+1
Madras Deccan	·642	·692	−·050	63	71	−8
Madras Coast	·815	·818	−·003	63	72	−9
South India	·748	·752	−·004	66	73	−7

The preceding data show that over the greater part of the Peninsula also the absolute humidity was generally in excess, but by smaller amounts than in Northern India, so that, the mean temperature being generally in excess, the relative humidity was normal or below the normal.

The following summarises the chief abnormal features of the mean hygrometric conditions of the month :—

(1) The absolute humidity exceeded the normal in all the provinces of India with the exception of Madras.

(2) The relative humidity was above the normal over the greater part of North-Western India, across the head of the Peninsula, in the Bombay Deccan and in Mysore.

(3) The excess in the absolute and relative humidities was greatest in the East Punjab and in Gujarat and South-West Rajputana.

(4) Over the remainder of India the relative humidity was below the normal.

(5) The deficiency was greatest in the Carnatic and the Deccan.

(6) The air was drier than usual in the Equatorial Belt.

The cloud amount was in excess of the average, except in three regions. The first included the Indus Valley, the second the Bombay Deccan and part of Berar, and the third the neighbourhood of Madras. It was also in slight local defect in North Bihar. The following gives comparative data for these three regions:—

Station.		Mean cloud amount.		
		Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Indus Valley	Peshawar	2·1	2·9	−0·8
	Kurrachee	5·6	6·7	−1·1
	Jacobabad	2·1	2·3	−0·2
Bombay Deccan and Berar.	Poona	8·3	8·6	−0·3
	Belgaum	8·6	8·7	−0·1
	Akola	7·5	8·2	−0·7
Madras	Madras	6·3	6·6	−0·3

The excess of cloud was moderate in the Bay Islands, Burma and Northern India, as is shown by the following data:—

Province or division.	Mean cloud amount.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Bay Islands	8·1	7·9	+0·2
Burma	8·6	8·3	+0·3
Bengal	8·6	8·0	+0·6
Orissa	8·7	7·9	+0·8
Chota Nagpur	10·0	9·0	+1·0
North-Western Provinces	7·6	7·1	+0·5
Rajputana	8·4	7·7	+0·7

The excess was small in the Deccan, but was moderate again in the remaining divisions of the Peninsula. The following gives mean comparative data for the Peninsular divisions:—

Division.	Mean cloud amount.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Central Provinces	8·3	8·1	+0·2
Berar	8·3	8·0	+0·3
West Coast	8·8	8·0	+0·8
Bombay Deccan	8·5	8·6	−0·1
Madras Deccan	8·3	7·3	+1·0
Madras Coast	6·3	6·6	−0·3
Mysore	8·6	8·1	+0·5
South India	6·7	6·3	+0·4

The sky was least obscured by cloud in parts of the Punjab and of the Indus Valley, where the mean cloud amount of the month was less than 5. The following gives data:—

Station.	Mean cloud amount.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Lahore	3·9	3·7	+0·2
Peshawar	2·1	2·9	−0·8
Jacobabad	2·1	2·3	−0·2

On the other hand, the mean cloud amount exceeded 9 at the following stations:—

Station.	Mean cloud amount.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Hazaribagh	10·0	9·0	+1·0
Buldana	9·1	7·8	+1·3
Bombay	9·1	8·8	+0·3

The observations at the hill stations showed that on the mean of the month there had been some excess of cloud in Lahoul, over the Kumaun Himalayas, at the central stations of Mount Abu and Pachmarhi and at the southern

station of Wellington. The following gives comparative data:—

Station.	Mean cloud amount.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Kailang	7·5	6·5	+1·0
Chakrata	9·2	8·6	+0·6
Ranikhet	9·2	8·7	+0·5
Mount Abu	9·5	8·5	+1·0
Pachmarhi	9·5	8·7	+0·8
Wellington	8·0	7·6	+0·4

On the other hand, the sky was less cloudy than usual in Kashmir and over the Eastern Himalayas. This is shown below:—

Station.	Mean cloud amount.		
	Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.
Leh	4·5	5·2	−0·7
Srinagar	4·0	4·0	0
Katmandu	6·7	7·1	−0·4
Darjeeling	7·1	8·9	−1·8

The following gives the chief abnormal features in the mean distribution of cloud during the month:—

(1) The mean cloud amount was in slight defect in three areas, *viz.*, the Indus Valley, the Bombay Deccan and parts of Berar and the district of Madras and perhaps in North Bihar.

(2) The cloud amount was in slight excess in other parts of India.

Rainfall.

The distribution of rainfall in August 1900 was the opposite of that of August 1899. The month's rainfall was generally heavy and well distributed throughout the whole country. The Arabian Sea monsoon current fell off during the last ten days of the month, and the cyclonic storm which passed from the Bay inland between the 24th and the 31st passed along a more northerly track than did the cyclonic storms of the first three weeks of the month, so that the rainfall from the Arabian Sea monsoon current fell off during this period and a partial break prevailed from the 21st to the end of the month over Western and North-Western India. The rainfall distribution during the month was chiefly determined by the following features:—

(1) The unusual strength of the monsoon currents on both sides of India.

(2) The southerly position of the monsoon trough of low pressure.

(3) The westerly track of the barometric depressions of the early part of the month.

(4) The determination of the Bay current north-westward into Upper India.

(5) The partial break in the rains over Western and North-Western India during the last ten days of the month.

The barometric depressions of the month were generally of moderate intensity, and one was of considerable intensity. The vitality of the depressions was great, and they all travelled westward to north-westward into North-West India, so that the general conditions of pressure, etc., were favourable for heavy rains and for the extension of the rainfall to its furthest limits.

The rainfall of the month was mainly associated with the cyclonic storms of the month, and hence was heaviest and most general between—

(1) the 1st and the 14th, when two depressions passed from the head of the Bay into North-West India, and during which period the West Coast, Gujarat, the whole of the central districts, North-East India, the Gangetic Plain and North-West India received daily more or less heavy rain;

(2) the 17th and the 21st, when first North-East India and subsequently the central parts of the country received heavy rain from a cyclonic storm which passed from the head of the Bay to Rajputana;

(3) the 23rd to the 31st, when North-Eastern India and the Gangetic Plain received general rain from a storm which travelled from the head of the Bay to the west of the North-Western Provinces.

The above indicates the chief periods of rainfall. Its

actual distribution and its variations from the normal are exhibited in plates IV and V. The following table gives comparative rainfall data for the 56 meteorological or rainfall divisions of the country :—

Province.	Division.	Number of rainy days. Average actual, August 1900.	Number of rainy days. Average normal, August.	Rainfall. Average actual, August 1900.	Rainfall. Average normal, August.	Rainfall. Variation of actual from normal, August 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim *	...	...	57·85	37·52	+20·33
	Lower Burma (Deltaic) *	...	...	28·29	20·75	+7·54
	Central do*	...	...	16·08	13·40	+2·68
	Upper do*	...	...	8·69	10·45	—1·76
	Arakan *	...	...	41·69	32·00	+9·69
Bengal and Assam	Eastern Bengal	16·6	18·2	11·97	16·41	—4·44
	Assam (Surma)*	...	...	14·29	24·57	—10·28
	Do. (Hills)*	...	...	12·14	26·66	—14·52
	Do. (Brahmaputra)*	...	...	8·23	13·82	—5·59
	Deltaic Bengal	17·8	15·9	13·18	12·19	+0·99
	Central do.	14·3	15·0	8·43	11·38	—2·95
	North do.	11·3	15·9	7·89	17·07	—9·18
	Bengal Hills	21·5	22·4	18·52	27·98	—9·46
	Orissa	17·9	15·1	19·91	11·98	+7·93
	Chota Nagpur	16·5	16·2	14·73	13·80	+0·93
	Bihar (South)	12·4	13·3	7·51	11·88	—4·37
	Do. (North)	10·5	14·1	6·72	12·61	—5·89
North-Western Provinces and Oudh.	North-Western Provinces (East)	12·3	12·5	8·19	10·79	—2·60
	Oudh (South)	9·9	11·9	10·13	10·47	—0·34
	Do. (North)	8·8	11·7	6·65	10·44	—3·79
	North-Western Provinces (Central)	13·0	11·8	11·39	10·55	+0·84
	Do. do. (West)	9·4	9·3	6·72	7·70	—0·98
	Do. do. (East Submontane)	9·9	12·2	6·68	10·78	—4·10
	Do. do. (West do.)	12·4	12·1	11·32	13·20	—1·88
	Do. do. (Hills)	17·3	18·3	13·15	16·60	—3·45
Punjab	Punjab (South-East)	8·9	7·4	6·07	5·96	+0·11
	Do. (South)	6·2	4·8	7·99	4·13	+3·86
	Do. (Central)	4·5	5·1	4·91	4·75	+0·16
	Do. (Submontane)	10·1	8·0	16·77	8·30	+8·47
	Do. (Hills)	17·5	15·3	20·06	16·67	+3·39
	Do. (North)	6·2	5·4	4·37	4·78	—0·41
	Do. (West)	2·7	2·8	1·70	2·07	—0·37
Bombay and Malabar Coast Districts (Madras).	Malabar	24·9	21·4	28·11	19·92	+8·19
	Travancore	18·2	...	12·10	...	...
	Madras (South Central)	3·5	5·6	1·62	3·49	—1·87
	Coorg	24·1	...	34·40	...	
	Mysore*	...	...	4·80	5·28	—0·48
	Konkan	26·4	23·8	37·05	23·96	+13·09
	Bombay (Deccan)	12·0	9·9	11·37	6·14	+5·23
	Khandesh	12·2	8·6	10·23	5·99	+4·24
Central Provinces and Berar.	Berar	11·3	...	10·51	7·60	+2·91
	Central Provinces (West)	14·8	12·8	16·41	9·87	+6·54
	Ditto. (Central)	18·2	14·1	18·95	12·86	+6·09
	Ditto. (East)	18·1	13·2	18·07	12·54	+5·53
Bombay (North)	Gujarat	18·6	13·6	19·62	9·46	+10·16
	Kathiawar and Cutch	14·1	7·4	18·97	6·28	+12·69
	Sind	3·6	...	2·97	1·94	+1·03
	Baluchistan Hills	1·6	...	0·98	0·73	+0·25
Rajputana and Central India.	Central India (East)	17·0	...	15·17	12·28	+2·89
	Rajputana (East), Central India (West)	12·7	...	11·81	9·69	+2·12
	Rajputana (West)	6·8	...	5·44	3·87	+1·57
Madras	East Coast (North)	10·2	11·0	6·48	7·51	—1·03
	Hyderabad (South)*	...	...	3·06	...	...
	Madras (Central)	4·3	6·7	1·81	4·18	—2·37
	East Coast (Central)	2·0	5·8	0·65	3·47	—2·82
	Ditto. (South)	3·5	7·2	1·90	4·97	—3·07
	Madras (South)	1·5	2·8	1·07	1·62	—0·55

* The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

The following gives a summary of the most important features of the rainfall of the month, as shown by the above table :—

(1) The rainfall was more or less in defect in 26 of the rainfall divisions.

(2) The deficiency was moderate in amount and more than 20% in eighteen divisions.

(3) The deficiency was large and more than 50% in the following six divisions, *viz.*, the Assam Hills, North Bengal, South Central Madras, Central Madras, the central division of the east coast and the south division of the east coast.

(4) The rainfall was more or less in excess in 28 of the rainfall divisions.

(5) The excess was moderate to large in amount and more than 20% in twenty-one of the above divisions.

(6) The excess was large and more than 50% in the following 11 divisions, *viz.*, Tenasserim, Orissa, the South Punjab, the submontane Punjab, the Konkan, the Bombay Deccan, Khandesh, the west of the Central Provinces, Gujarat, Kathiawar and Sind.

The above shows that the rainfall excess was greatest along a broad band running from Tenasserim through Orissa and the Central Provinces to the Bombay coast and North Bombay, while there was a large local excess over the submontane regions of the Punjab. It also shows that the greatest deficiency occurred in the extreme North-East of India and in the south of the Peninsula, both of which regions were outside the paths of the cyclonic storms of the month.

Burma received daily rain during the month, except between the 20th and the 23rd, when a marked falling off occurred and the rainfall was restricted to a few light scattered showers. The heaviest rainfall was recorded during the period of the formation of the different storms of the month consequently between the 4th and the 6th, between the 9th and the 12th, between the 13th and the 17th and between the 24th and the 26th. The following gives the heaviest falls in 24 hours recorded during these periods :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sandoway	Snadoway	4th August 1900	4·00
Akyab	Maungdaw	" "	3·87
Thongwa	Maubin	5th "	2·55
Katha	Tigyaing	6th "	2·90
Akyab	Akyab	" "	2·89
Thongwa	Maubin	" "	2·82
Chin Hills	Fort White	" "	2·70
Bassein	Bassein	6th August 1900	2·65
Thaton	Kyaikto	9th "	6·87
Amherst	Moulmein	" "	3·66
Tavoy	Thayetchaung	10th "	3·97
Akyab	Akyab	11th "	4·54
Chin Hills	Fort White	" "	4·37
Amherst	Moulmein	12th "	5·48
Tavoy	Tavoy	" "	4·35
Amherst	Moulmein	13th "	7·90
Tavoy	Yebyu	" "	4·50
Amherst	Moulmein	14th "	6·10
Bassein	Kangyidaung	" "	6·10
Thaton	Thaton	" "	5·40
Sandoway	Gwa	15th "	4·58
Bassein	Ngaputaw	" "	4·49
Thongwa	Dedaya	" "	4·18
Sandoway	Gwa	16th "	6·14
Kyaukpyu	Myebon	" "	5·23
Sandoway	Sandoway	17th "	6·95
Kyaukpyu	Myebon	" "	5·50
Amherst	Moulmein	" "	5·01
Thaton	Kyaikto	24th "	5·15
Amherst	Moulmein	" "	4·98
Toungoo	Toungoo	25th "	6·55
Thayetmyo	Thayetmyo	" "	4·50
Tavoy	Tavoy	" "	4·41
Salween	Papun	" "	4·34
Sandoway	Sandoway	26th "	4·05
"	Gwa	" "	3·03

In consequence of this heavy and fairly continuous fal of rain the month's rainfall was generally in excess of th normal. The following gives comparative data for th rainfall divisions of the province :—

Division.	Rainfall.			
	Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentag variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	47·18	...	...	...
Lower Burma	29·01	...	...	...
Central Burma	12·64	...	...	...
Upper Burma	10·16	6·61	+3·55	+54
Arakan	40·66	...	...	

Bengal received rain from each of the four cyclonic storms of the month. Hence the principal periods of rainfall were between the 1st and the 8th, between the 10th and the 14th, between the 17th and the 20th, and between the 25th and the end of the month. Owing to the fact that the paths of the various depressions led them through Orissa and South-West Bengal, Northern and Eastern Bengal and North Bihar had less heavy and less continuous rain than other parts of the province.

During the 1st and 2nd a cyclonic storm which had formed over the Bay during the closing days of July, crossed quickly north-westward through South-West Bengal. The rainfall from this storm was not very heavy but exceeded 3″ at the following stations in South-West Bengal, Orissa and Chota Nagpur :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
RANCHI	Kurdeg	1st August	5·00
PURI	Pipli	" "	4·06
CUTTACK	Cuttack	" "	3·06
24-PARGANAS	Barasat	3rd "	4·05
HOOGHLY	Serampore	" "	4·04
24-PARGANAS	Barrackpore	" "	3·51
	Dum Dum	" "	3·39
BURDWAN	Katwa	" "	3·05

A heavy local fall of rain amounting to 5·06″ was reported from Buxa in the Darjeeling district on the 2nd. On the 3rd and 4th light to moderate rain prevailed over the province, but on the 5th a depression commenced to show the first signs of development over the Bay and the rainfall began to grow heavier in the coast districts, while a few local heavy downpours were reported at some inland stations on this day. The following gives examples of the falls exceeding 4″ in 24 hours :—.

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PALAMAU	Balumath	5th August	6·25
HOOGHLY	Serampore	" "	5·16
24-PARGANAS	Barasat	" "	4·95

The storm struck the Orissa coast during the 10th and passed quickly through that region travelling nearly west-north-west. As a result of this direction of movement the heaviest rainfall amounts were again reported from Orissa and South-West and West Bengal, East and North Bengal, and Bihar having remained comparatively unaffected.

The following were the heaviest rainfalls exceeding 3″ between the 6th and the 12th :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
RANCHI	Ramgar	6th August	3·50
CUTTACK	False Point	7th "	3·44
RANCHI	Sirguja	10th "	5·00
MYMENSINGH	Diwanganj	" "	3·90
RAJSHAHI	Lalpur	" "	3·73
BALASORE	Chandbali	" "	3·70
ORISSA TRIBUTARY MAHALS.	Narsingpur	" "	3·50
CUTTACK	Dharmsala	" "	3·48
PURI	Puri	11th "	5·37
	Gop	" "	4·23
	Bhanpur	" "	3·80
ORISSA TRIBUTARY MAHALS.	Baramba	" "	3·34
	Anandpur	" "	3·23

Between the 13th and the 16th the rainfall was generally light and scattered over Bengal, but by the 17th a fresh cyclonic storm had appeared over the north of the Bay and Deltaic Bengal. This storm was the most severe storm of the month, but like its predecessors it travelled west-north-westward affecting Orissa, South-West and West Bengal but leaving East and North Bengal to a great extent unaffected. In consequence, while between the 17th and 20th South-West Bengal, Orissa, Chota Nagpur and part of Bihar received general rain, other parts of the province only reported moderate showers. The following falls exceeding 4″ in 24 hours were recorded during the passage of this storm :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
24-PARGANAS	Canning Town	17th August	4·09
ORISSA TRIBUTARY MAHALS.	Bispara	18th "	9·10
PURI	Pipli	" "	6·81
RANCHI	Gop	" "	6·20
	Bano	" "	5·06
PALAMAU	Panki	" "	5·04
PURI	Puri	" "	4·81
	Satpara	" "	4·50
	Kanas	" "	4·10
MIDNAPORE	Contai	19th "	6·25
	Panskura	" "	6·05
RANCHI	Palkot	" "	5·55

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
24-Parganas	Saugor Island	19th August	5·19
Midnapore	Midnapore	" "	5·16
Manbhum	Purulia	" "	4·51
	Barahabhum	" "	4·30
Palamau	Mahuadand	" "	4·20
Singhbhum	Gailkura	" "	4·10

From the 21st to the 25th the rainfall, though occasionally locally heavy, as for example at Dinajpur on the 23rd, was generally moderate and more or less scattered but on the 26th the fall became both heavy and general under the influence of a depression which was developing at the head of the Bay. This storm passed through South-West Bengal and Chota Nagpur and was succeeded by a fair flow of monsoon winds from the Bay, so that from the 26th to the end of the month the rainfall was general throughout the province. The days of most general and heaviest rainfall were the 26th, 27th, 28th and 30th on which occasions the following amounts exceeding 3" in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Balasore	Jellasore	26th August	5·12
Dacca	Manikganj	" "	3·80
Purnea	Gondwara	" "	3·80
Midnapore	Dantan	" "	3·75
Noakhali	Hatya	" "	3·71
Khulna	Paikgacha	" "	3·42
Backergunge	Gaurnadi	" "	3·42
Noakhali	Ramganj	" "	3·23
24-Parganas	Barasat	" "	3·13
Backergunge	Bauphal	" "	3·08
Balasore	Balasore	27th "	5·30
Khulna	Mollahat	" "	5·15
Singhbhum	Monahorpur	" "	4·67
	Gailkura	" "	4·30
Guttack	Salipore	" "	4·06
Hazaribagh	Hazaribagh	" "	3·82
Balasore	Jellasore	" "	3·81
Hazaribagh	Ramgar	" "	3·50
Singhbhum	Kharswan	" "	3·36
	Chaibassa	" "	3·23
Orissa Tributary Mahals.	Baisenga	27th August	3·19
Ranchi	Silli	" "	3·15
Manbhum	Chas	" "	3·10
Chittagong	Fenoa	28th "	4·63
Jalpaiguri	Kalchini	" "	4·25
Cuttack	Pal Lahara	" "	3·45
Noakhali	Fenny	" "	3·43
Monghyr	Begusarai	" "	3·25
Darjeeling	Baxa	29th "	6·00
Noakhali	Chhagalnaya	" "	4·81
Sonthal Parganas	Sahibgunj	" "	4·52
Shahabad	Mohanea	" "	4·48
Noakhali	Fenny	" "	4·40
	Harishpur	" "	3·42
Jalpaiguri	Falakata	" "	3·02
Darjeeling	Kurseong	30th "	4·68
Rangpur	Bagdogra	" "	4·60
Khulna	Kaliganj	" "	4·25
Purnea	Kaliaganj	" "	4·00
Darjeeling	Mungpoo	" "	3·56
Noakhali	Harishpur	" "	3·48

The following gives comparative data for the rainfall divisions of the province and shows that the rainfall of the month was in defect of the normal in East Bengal, Central Bengal, North Bengal, the Bengal Hills, and both the Bihar divisions ; normal in Chota Nagpur and Deltaic Bengal and in excess in Orissa :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.	Average actual, August 1900.	Average normal, August.
	Inches.	Inches.	Inches.			
Eastern Bengal	11·97	16·41	−4·44	−27	16·6	18·2
Deltaic Bengal	13·18	12·19	+0·99	+8	17·8	15·9
Central Bengal	8·43	11·38	−2·95	−26	14·3	15·0
North Bengal	7·89	17·07	−9·18	−54	11·3	15·9
Bengal Hills	18·52	27·98	−9·46	−34	21·5	22·4
Orissa	19·91	11·98	+7·93	+66	17·9	15·1
Chota Nagpur	14·73	13·80	+0·93	+7	16·5	16·2
South Bihar	7·51	11·88	−4·37	−37	12·4	13·4
North Bihar	6·72	12·61	−5·89	−47	10·5	14·1

The rainfall distribution exhibited by the above table was largely attributable to the tracks and number of the cyclonic storms of the month. While the storms were developing over the Bay, the monsoon was interrupted in its flow northward, and when the centres had passed west-north-westward the moist monsoon currents were also drawn north-westward towards the storm. As soon as this influence from one storm had ceased, another had commenced to form over the Bay, so that uninterrupted monsoon winds were never experienced for any period over Bengal, and the only part of the province receiving heavy rain was that affected by the various cyclonic storms of the month. The deficiency was greatest in the following districts in which it exceeded 40°/₀ :—

District.	Rainfall.			
	Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Cooch Behar	4·74	21·90	−17·16	−78
Purnea	6·27	15·29	−9·02	−59
Muzaffarpur	4·73	10·95	−6·22	−57
Darbhanga	5·31	12·30	−6·99	−57
Rangpur	5·39	12·37	−6·98	−56
Jalpaiguri	11·99	25·82	−13·83	−54
Pabna	5·22	11·17	−5·95	−53
Saran	5·67	10·85	−5·18	−48
Mymensingh	8·42	15·20	−6·78	−45
Champaran	7·79	13·97	−6·18	−44

On the other hand, Orissa was traversed by each of the storms of the month, and the following gives the excess which was reported from the different districts of this division :—

District.	Rainfall.			
	Average actual, Augut 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Puri	21·32	11·71	+9·61	+82
Cuttack	22·04	12·45	+9·59	+77
Balasore	18·06	11·18	+6·88	+62

The rainfall conditions of Assam during the month of August were determined like those of East, North and Central Bengal by the direction of advance of the cyclonic storms from the Bay and by the absence of steady monsoon winds from the Bay. General rain apparently fell from the 5th to the 8th, from the 12th to the 14th, from the 21st to the 23rd and from the 27th to the end of the month. During these periods of rainfall the following were the largest amounts recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Lakhimpur	Margherita	5th Aug. 1900	2·80
Cachar	Halakandi	" " "	2·30
Sibsagar	Diflu	6th " "	3·65
Darrang	Barpukhuri	" " "	3·53
Kamrup	Boko	7th " "	3·90
Sibsagar	Sanari	" " "	2·80
Lakhimpur	Dhakuakhina	8th " "	4·15
	Jaipur	12th " "	3·50
Sylhet	Lalakhal	" " "	3·45
Lushai Hills	Sairang	13th " "	5·05
Sylhet	Sunamganj	" " "	4·57
		14th " "	3·45
Kamrup	Rani	" " "	2·44
Sylhet	Lalakhal	21st " "	4·17
	Sunamganj	" " "	2·65
Khasi and Jaintia Hills.	Cherra Poonjee Police station.	22nd " "	3·00
Darrang	Orangajuli	23rd " "	2·80
Kamrup	Rangiya	" " "	2·60
	Barpeta	27th " "	3·77
Sylhet	Karimganj	" " "	3·22
Cachar	Kukicherra	" " "	3·18
Khasi and Jaintia Hills.	Cherra Poonjee Police station.	28th " "	3·11
Lakhimpur	Dhakuakhana	" " "	3·05
Khasi and Jaintia Hills.	Cherra Poonjee Police	29th " "	6·47
Cachar	Dewan	" " "	3·90
Goalpara	Kochugaon	" " "	3·59
Cachar	Jafirabind	30th " "	4·65
Khasi and Jaintia Hills.	Cherra Poonjee Police station.	" " "	4·93
Lakhimpur	Harmati	" " "	3·15
Cachar	Monierkhal	31st " "	7·00
	Bikrampur	" " "	5·20
Darrang	Mangaldai	" " "	4·70
Cachar	Koyah	" " "	4·59

Cherrapoonjee had only 39·88″ instead of the normal 77·03″.

The rainfall of the month was only little more than half the normal over the plains districts and was less than half the normal over the hill districts. The following gives mean rainfall data for the eight plains districts of Assam and for the five hill districts so far as is known :—

Province.	Plains or hill District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Assam	Cachar	12·29	22·16	— 9·87	—45
	Sylhet	16·08	21·81	— 5·73	—26
	Goalpara	8·12	16·41	— 8·29	—51
	Kamrup	9·80	11·77	— 1·97	—17
	Darrang	8·81	13·87	— 5·06	—36
	Nowgong	9·53	13·62	— 4·09	—30
	Sibsagar	9·12	14·82	— 5·70	—38
	Lakhimpur	12 23	18·87	— 6·64	—35
	Naga hills	11 81	18·52	— 6·71	—36
	Khasi and Jaintia Hills	15·87	36·38	—20·51	—56
	Garo Hills	7·62	20·25	—12·63	—62
	Manipur	6·06	10·84	— 4·78	—44
	Lushai Hills	13·11	18·55	— 5·44	—29

The above shows that the rainfall of the month was more or less in defect throughout the province and that the deficiency was most marked in the Khasi and Garo Hills and in the district of Goalpara.

The following table gives comparative rainfall data for the three rainfall divisions of the province ;—

Division.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Surma Valley	13·86	21·98	— 8·12	—37
Brahmaputra Valley	9·71	14·89	— 5·18	—35
Assam Hills	13·04	23·57	—10·53	—45

The weather of the North-Western Provinces was more or less affected by all the cyclonic storms of the month, but in most cases the different divisions of the North-Western Provinces lay to the northward of the storms, and the winds in many cases blew from the north of east. Hence conditions were not so favourable for rainfall over the North-Western Provinces as over the Central Provinces, and the mean rainfall of the month was below the normal in most places. The principal rainfall periods were between the 1st and the 8th, between the 9th and the 12th in the submontane division only, between the 14th and the 20th, and between the 24th and the end of the month. These periods coincide with the advance through or near to the North-Western Provinces of the various cyclonic storms of the Bay. During the first rainfall period the rain was not heavy except in parts of the central, west and submontane divisions where the following amounts exceeding 2 inches in 24 hours were recorded :—

District.	Station	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Banda	Girwan	4th August	2·50
Jhansi	Lalitpur	" "	2·40
Banda	Baberu	" "	2·24
Almora	Purana Thal	" "	2·10
Garhwal	Okhimath	" "	2·10
Almora	Rawana Thal	" "	2·08
	Pirpulta	" "	2·05
Naini Tal	Ramnagar	5th "	2·34
Hamirpur	Bela Tal	" "	2·10
Naini Tal	Kathgodam	6th "	2·31
Jhansi	Mahroni	" "	2·15
Banda	Kamasin	7th "	2·28
Almora	Champawat	" "	2·05
Dehra Dun	Mussooree	8th "	2·32
	Dehra Dun (Loper Asylum).	" "	2·07

During the 9th, 10th, 11th and 12th a local storm occasioned heavy rainfall over the submontane division of the North-Western Provinces. The following gives data of the heaviest falls recorded during this period. The largest

amounts were recorded in the Saharanpur and Muzaffarnagar districts, as is shown below:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
MUZAFFARNAGAR	Bhainswal	9th August	5·00
DEHRA DUN	Chakrata (Observatory)	" "	3·59
NAINI TAL	Naini Tal	" "	3·28
GARHWAL	Lansdowne	10th "	5·25
SAHARANPUR	Hardwar	" "	4·38
MURADABAD	Amroha	" "	4·00
MUZAFFARNAGAR	Muzaffarnagar	" "	3·34
SAHARANPUR	Muhammudpur	11th "	5·50
NAINI TAL	Satnia	" "	5·50
MUZAFFARNAGAR	Jaoli Jansath	" "	5·00
MURADABAD	Hasanpur	" "	4·65
SAHARANPUR	Roorkee	" "	4·04
BAREILLY	Oganpur	" "	3·80
PILIBHIT	Puranpur	" "	3·00
MUZAFFARNAGAR	Jaoli Jansath	12th "	4·50
NAINI TAL	Naini Tal	" "	3·57
BAREILLY	Baheri	" "	3·36
NAINI TAL	Rudarpur (Kiteha)	" "	3·50

On the 14th the depression which had passed from the north of the Bay into Rajputana, had reached the west of the North-Western Provinces and a strong flow of monsoon winds from the Arabian Sea was taking place through the Central Provinces into the North-Western Provinces, and from the 15th to the 18th there were showers over the North-Western Provinces, the heaviest of which (exceeding 1½″ in 24 hours) were as follows:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GARHWAL	Okhimath	15th August	2·60
JHANSI	Jhansi	" "	2·60
MUZAFFARNAGAR	Bhainswal	" "	2·00
DEHRA DUN	Rajpur	" "	1·98
MUZAFFARNAGAR	Bhainswal	16th "	6·00
AZAMGARH	Mahul	" "	2·87
BASTI	Basti	" "	2·40
AZAMGARH	Deogaon	" "	2·20
NAINI TAL	Naini Tal	16th August	2·10
DEHRA DUN	Mussooree	" "	1·85
BASTI	Harraiya	" "	1·70
GHAZIPUR	Zamania	" "	1·70
ALMORA	Tanakpur	" "	1·65
GONDA	Tarabganj	" "	1·65
MUZAFFARNAGAR	Kairana	" "	1·64
SAHARANPUR	Deoband	" "	1·53
	Nakur	17th "	4·60
	Salimpur	" "	3·00
MEERUT	Meerut	" "	2·85
	Sardhana	" "	2·80
SAHARANPUR	Kuankhera	" "	2·70
MUZAFFARNAGAR	Kairana	" "	2·54
	Khandhla	" "	2·20
SAHARANPUR	Jaranda	" "	2·10
BAREILLY	Mirganj	" "	1·70
BUDAUN	Sahaswan	" "	1·58
ALMORA	Champawat	" "	1·54
GHAZIPUR	Zamania	18th "	3·15
DEHRA DUN	Raipur	" "	1·90
BARA BANKI	Haidargarh	" "	1·65
DEHRA DUN	Mussooree	" "	1·62

On the 19th the weather in the North-Western Provinces came under the influence of a fresh storm from the Bay. This storm lay over Chota Nagpur on the 19th, near Allahabad on the 20th, and near Jhansi on the 21st after which it filled up. It occasioned a fairly general burst of rain—more particularly in the central and south-east divisions. The following were the falls exceeding 3 inches in 24 hours:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BANDA	Baberu	19th August	3·56
MUTTRA	Baroda	20th "	3·60
MAINPURI	Dhandhaus	" "	3·20

The 21st, 22nd and 23rd were generally fine except in the sub-montane division, but on the 24th the weather was affected by a local storm over the western districts

of the North-Western Provinces and which occasioned the following heavy falls of rain, exceeding 4″, between the 24th and 27th :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Unao	Safipur	24th August	4·95
Almora	Berenag	" "	4·10
Hardoi	Shahabad	" "	4·05
Unao	Unao	25th "	12·94
Cawnpore	Bilhaur	" "	9·90
	Shiurajpur	" "	9·13
Sultanpur	Kadipur	" "	8·05
Cawnpore	Cawnpore	" "	7·28
Unao	Purwa	" "	6·73
Lucknow	Mohanlalganj	" "	6·62
Unao	Mohan	" "	6·61
Farukhabad	Kanauj	" "	6·40
Partabgarh	Patti	" "	6·20
Hardoi	Bilgram	" "	6·17
	Hardoi	" "	5·85
Farukhabad	Chibraman	" "	5·81
Hardoi	Sandila	" "	5·62
Sultanpur	Amethi	" "	5·50
Cawnpore	Narwal	" "	5·35
Farukhabad	Thatia Tirwa	" "	5·33
Fatehpur	Khajwa	" "	5·15
Rae Bareli	Digbijaiganj	" "	5·12
Mainpuri	Mainpuri	" "	4·96
Bara Banki	Haidargarh	" "	4·82
Bijnor	Nagina	" "	4·66
Jaunpur	Kutahan	" "	4·65
Fatehpur	Fatehpur	" "	4·52
Bijnor	Najibabad	" "	4·50
Lucknow	Malihabad	" "	4·19
Fatehpur	Khaga	" "	4·18
Rae Bareli	Dalman	" "	4·14
Banda	Baberu	" "	4·08
Farukhabad	Kaimganj	" "	4·03
Bara Banki	Nawabganj	" "	4·02
Aligarh	Khair	26th "	5·13
Shahjahanpur	Pawayan	27th "	7·68
Kheri	Muhamdi	" "	4·81
Shahjahanpur	Jalalabad	" "	4·20

On the 27th the North-Western Provinces came under the influence of a fresh storm from the Bay. This storm entered the North-Western Provinces on the afternoon of the 27th, lay near Allahabad on the 28th, Cawnpore on the 29th, Mainpuri on the 30th and disappeared on the 31st. In consequence of these two storms rain was exceptionally general throughout the North-Western Provinces during the last week of the month. The following gives the principal falls which occurred under the influence of the storm of the 27th to the 30th :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Banda	Badausa	28th August	5·48
	Karwi	" "	2·86
Jhansi	Lalitpur	29th "	5·05
	Jhansi	" "	3·70
	Mau	" "	3·55
Jalaun	Orai	" "	3·52
Kheri	Muhamdi	" "	3·26
Jalaun	Kunch	" "	3·26
Jhansi	Talbahat	" "	3·00
	Muth	" "	2·87
Dehra Dun	Dehra-Dun (Leper Asylum).	" "	2·55
	Raipur	30th "	4·40
	Bhogpur	" "	4·20
Gorakhpur	Maharajganj	" "	3·95
Dehra Dun	Mussooree	" "	2·65

Notwithstanding the constantly recurring storms the general rainfall of the North-Western Provinces, as noticed above, was generally less than usual in August. The following gives comparative data for the different divisions :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, August 1900	Average normal, August.	Variation of actual from normal, August 1900	Percentage variation from normal.	Average actual, August 1900.	Average normal, August.
	Inches.	Inches.	Inches.			
North-Western Provinces, East.	8·19	10·79	—2·60	—24	12·3	12·5
South Oudh	10·13	10·47	—0·34	— 3	9·9	11·9
North Oudh	6·65	10·44	—3·79	—36	8·8	11·7
North-Western Provinces, Central.	11·39	10·55	+0·84	+ 8	13·0	11·8
North-Western Provinces, West.	6·72	7·70	—0·98	—13	9·4	9·3
North-Western Provinces, East Submontane.	6·68	10·78	—4·10	—38	9·9	12·2
North-Western Provinces, West Submontane.	11·32	13·20	—1·88	—14	12·4	12·1
North-Western Provinces, Hills.	13·15	16·60	—3·45	—21	17·3	18·3

The above shows that in the case of South Oudh, the central division of the North-Western Provinces, the west division and the west submontane division the month's rainfall was about normal, but that in all the remaining divisions it was less than usual. The deficiency was greatest in the North Oudh and the east submontane divisions where there was a marked northerly component in the wind's direction. The following gives comparative data for the different districts of these divisions :—

Division.	District.	Rainfall.		
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.
		Inches.	Inches.	Inches.
North Oudh	Fyzabad	6·23	10·13	—3·90
	Gonda	8·37	11·42	—3·05
	Bara Banki	7·87	9·97	—2·10
	Bahraich	3·68	10·52	—6·84
	Sitapur	5·36	9·62	—4·26
	Kheri	8·62	11·48	—2·86
North Western Provinces East Submontane.	Gorakhpur	6·42	10·70	—4·28
	Basti	7·52	11·38	—3·86
	Azamgarh	5·99	11·17	—5·18
	Ballia	6·86	9·66	—2·80

On the 1st a barometric depression lay over Sind and a flow of monsoon winds, both across North-Western India from the Arabian Sea and along the hills from the Bay, was taking place into the Punjab. This ceased after the 3rd and fairly fine weather prevailed until the 7th. On the 8th another depression was shown over the Western Desert. Conditions similar to those described above were established and rain again set in generally over the Punjab. This lasted till the 11th and in the east of the province until the 12th. There then occurred a brief break during the 13th and 14th, but on the 15th a fresh depression was shown passing through Rajputana and general rain continued until the 17th. A break in the rains then set in lasting over the greater part of the province till the close of the month, though in the central, submontane and hill divisions there was further rain between the 22nd and 28th from two other disturbances. There were thus three periods of general rain during the month and one of partial rain. The first period lasted from the 1st to the 3rd and was marked by heavy rain on the 1st in the south and submontane divisions. The following gives the falls exceeding 3″ in 24 hours on this occasion :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gurdaspur	Tibri	1st August	6·25
Kangra	Dharmsala	" "	6·00
Patiala State	Gujran	" "	5·70
Sialkot	Zafarwal	" "	4·67
Gurdaspur	Shakargarh	" "	4·65
Jullundur	Phillour	" "	4·32
Kangra	Kangra	" "	3·80
Jind State	Dhaneta	" "	3·72
Kangra	Nurpur	" "	3·70
Hissar	Hansi	" "	3·68
Gurdaspur	Gurdaspur	" "	3·65
Hoshiarpur	Sadr Station	" "	3·47
Gurdaspur	Madhopur	" "	3·30
Gurdaspur	Pathankot	" "	3·22
Jullundur	Jullundur	" "	3·10
Patiala State	Lehal	2nd "	3·32

During the second period which lasted from the 7th to the 12th very heavy rain was received in the submontane division, but particularly in Gurdaspur, Amritsar Hoshiarpur, Sialkot and Umballa. The following gives the heaviest falls exceeding 3″ recorded during this period :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hazara	Haripur	7th August	5·82
Sialkot	Zafarwal	" "	4·77
Gurdaspur	Shakargarh	" "	3·70
	Gurdaspur	8th "	6·84
Sialkot	Zafarwal	" "	6·06
Amritsar	Buchar	" "	5·50
Gurdaspur	Tibri	" "	5·75
Amritsar	Raya	" "	5·53
	Amritsar	" "	4·77
	Amritsar Jail Hospital	" "	4·60
Gujrat	Kharian	" "	3·60
Gujranwala	Firoz	" "	3·30
Ludhiana	Jagraon	9th "	5·20
Hoshiarpur	Dasuya	" "	4·90

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Umballa	Kharar	9th August	3·75
Hoshiarpur	Sadr Station	" "	3·68
Lahore	Kasur	" "	3·65
Ferozepore	Zira	" "	3·60
Umballa	Rupar	" "	3·45
Hoshiarpur	Hoshiarpur	" "	3·30
Amritsar	Taron Taran	" "	3·13
Lahore	Chunian	" "	3·04
Gurgaon	Hattin	10th "	7·00
Hoshiarpur	Garhshankar	" "	5·38
Umballa	Naraingarh	" "	5·30
Patiala State	Gujran	" "	5·30
	Raniki	" "	5·10
Umballa	Kharar	" "	4·75
Ludhiana	Samrala	" "	4·75
	Ludhiana	" "	4·75
Umballa	Dadupur	" "	4·00
Jullundur	Nawashahr	" "	3·80
Patiala State	Barthala	" "	3·69
Ferozepore	Phidda	" "	3·40
Patiala State	Jodhpur	" "	3·40
Umballa	Jagadhri	" "	3·35
Peshawar	Mardan	" "	3·34
Karnal	Kaithal	" "	3·02
Umballa	Kasauli	12th "	3·48
	Jagadhri	" "	3·30
Kangra	Palampur	" "	3·10
	Dharmsala	" "	3·05

The third period lasting from the 15th to the 17th was again marked by very heavy general rain, more particularly in Ludhiana, Umballa, Hoshiarpur, Jullundur and Kangra. The following shows the falls exceding 5″ in 24 hours during this rainfall period :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Hissar	Tohana	15th August	6·00
Umballa	Rupar	16th "	7·56
Kangra	Dharmsala	" "	6·75
Gurdaspur	Dalhousie	" "	6·65
Umballa	Kasauli	16th August	5·94
Amritsar	Ajnala	" "	5·92
Lahore	Meean Meer	" "	5·60
Amritsar	Buchar	" "	5·59
Kangra	Kangra	" "	5·10
Hoshiarpur	Una	17th "	7·90
Jullundur	Phillour	" "	7·10
Ludhiana	Samrala	" "	7·03
Jullundur	Nawashahr	" "	6·91
Kangra	Dharmsala	" "	6·79
Amritsar	Buggeh	" "	6·75
Kangra	Nurpur	" "	6·74
	Hamirpur	" "	6·48
Gurdaspur	Madhopur	" "	6·40
Ludhiana	Ludhiana	" "	6·05
Kangra	Dera	" "	5·95
Hoshiarpur	Garhshankar	" "	5·91
Umballa	Kharar	" "	5·90
Kangra	Palampur	" "	5·32
Gurdaspur	Pathankot	" "	5·15
Rawalpindi	Kahuta	" "	5·13

After this fall rain practically ceased in the South Punjab, the Central Punjab, the North-West Punjab and the West Punjab, but further showers were received in the sub-montane and hill divisions as well as at a few places in the central division between the 22nd and 28th. These showers were not heavy generally but exceeded 2″ in 24 hours at the following stations :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kangra	Palampur	24th August	3·21
Gurdaspur	Dalhousie	" "	2·73
Kangra	Kangra	" "	2·72
	Hamirpur	" "	2·68
	Palampur	25th "	3·75
	Dharmsala	"	2·25
	Hamirpur	" "	2·22
	Dera	" "	2·04

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
HOSIARPUR . . .	Dasuya . . .	26th August	3·85
KANGRA . . .	Dharmsala . .	" "	2·10
GURDASPUR . . .	Shakargarh . .	" "	2·06
KANGRA . . .	Dera . . .	" "	2·05
GURDASPUR . . .	Madhopur . .	28th "	2·50

The rainfall of the month was about twice as heavy as usual in the south and exceedingly heavy in the submontane divisions of the Punjab. The following gives comparative data for the different districts in these divisions:—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
SOUTH PUNJAB	Hissar . .	7·16	4·05	+ 3·11	+ 77
	Ferozepore .	6·36	4·22	+ 2·14	+ 51
	Montgomery .	1·92	1·90	+ 0·02	+ 1
PUNJAB SUBMONTANE.	Umballa .	20·40	10·58	+ 9·82	+ 93
	Ludhiana .	18·91	5·96	+12·95	+217
	Jullundur .	19·72	6·26	+13·46	+215
	Hoshiarpur .	22·76	8·93	+13·83	+155
	Gurdaspur .	20·71	11·99	+ 8·72	+ 73
	Amritsar .	10·70	5·83	+ 4·87	+ 84

Over the remainder of the Punjab the rainfall was about normal. This is shown in the following table which gives comparative data for the different divisions of the province:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, August 1900.	Average normal, August.	Variation of actual, from normal, August 1900.	Percentage variation from normal.	Average actual, August 1900.	Average normal, August.
	Inches.	Inches.	Inches.			
South-East Punjab .	6·07	5·96	+0·11	+ 2	8·9	7·4
South Punjab . .	8·34	4·13	+4·21	+102	6·4	4·8
Central Punjab . .	4·91	4·75	+0·16	+ 3	4·5	5·1
Punjab Submontane .	16·77	8·30	+8·47	+102	10·1	8·0
Punjab Hills . .	20·06	16·67	+3·39	+ 20	17·5	15·3
North Punjab . .	4·37	4·78	—0·41	— 9	6·2	5·4
West Punjab . .	1·70	2·07	—0·37	— 18	2·7	2·8

The rainfall from the monsoon currents extended well into Baluchistan over which district there were well marked falls on the 1st and between the 7th and the 14th. The following falls of rain exceeding 1″ in 24 hours were recorded during the latter period:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BALUCHISTAN .	Nasak . . .	9th August .	2·50
	Spintangi . . .	" " .	2·10
	Shahrig . . .	" " .	1·72
	Harnai . . .	" " .	1·70
	Sunari . . .	" " .	1·70
	Babarkach . .	10th " .	2·00
	Lindsay . . .	" " .	1·55
	Khost . . .	" " .	1·05
	Mach Hospital . .	11th " .	1·84
	Nasak . . .	" " .	1·04
	Bellput . . .	12th " .	2·25
	Fort Sandeman . .	14th " .	1·15

The rain ceased earlier in Baluchistan than in the Punjab, there having been no rain whatever after the 14th. So far as can be judged the rainfall of the month was generally heavier than usual. The following gives comparative data:—

PROVINCE OR DIVISION.	RAINFALL.			
	Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Baluchistan	0·98	0·73	+0·25	+34

In Kashmir there were showers up to the 18th after which rain practically ceased, though there were some showers at a few places between the 24th and the 27th. The rainfall of the month was apparently about normal

and the following falls of 2″ or more were recorded during the month :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kashmir	Punch	1st August	3·05
	Bhimber	5th ,,	4·00
	Meerpore	,, ,,	3·25
	Kotli	,, ,,	2·50
	Ranbir Singh Pora	,, ,,	2·30
	Akhnur	,, ,,	2·10
	Bhimber	6th ,,	2·14
	Rampore Rajauri	,, ,,	2·13
	Ranbir Singh Pora	7th ,,	4·24
	Ditto	8th ,,	2·53
	Bhimber	,, ,,	2·00
	Akhnur	10th ,,	2·57
	Do.	15th ,,	4·71
	Punch	16th ,,	4·55
	Vantipore	,, ,,	3·18
	Ramban	,, ,,	2·04
	Ranbir Singh Pora	,, ,,	2·00
	Pader	,, ,,	2·00
	Ranbir Singh Pora	17th ,,	6·31
	Ramban	,, ,,	5·27
	Rampore Rajauri	,, ,,	4·11
	Haripore	,, ,,	3·04
	Gulmarg	,, ,,	2·51
	Pader	,, ,,	2·00
	Akhnur	23rd ,,	2·20

The rainfall was heavy and general over Western Rajputana during the first-half of the month, but after the 16th the fall ceased with the exception of a few light scattered showers. The rainfall was heaviest on the 6th, 7th, 8th and 9th and again on the 15th and 16th when the following falls of 2″ and above were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bikaner	Desuri	6th August	2·38
Jodhpur	Bali	,, ,,	2·25
	Jaswantpura	7th ,,	3·61
Bikaner	Desuri	,, ,,	2·70
Jodhpur	Sojat	,, ,,	2·25
Jodhpur	Sacher	8th August	5·25
	Jalor	,, ,,	3·00
	Sojat	9th ,,	4·20
	Bilara	,, ,,	4·12
	Parbatsar	15th ,,	4·50
	Jodhpur	,, ,,	3·08
Bikaner	Desuri	,, ,,	2·04
Jodhpur	Jetaran	,, ,,	2·00
	Jalor	,, ,,	2·00
	Nawa	16th ,,	2·68
	Jodhpur (Sursagar)	,, ,,	2·22

In Eastern Rajputana there was almost daily rain up to the 21st, when there occurred a break of about five days after which heavy showers were received up to the end of the month. At the following places on the dates given rainfall amounts exceeding 4″ in 24 hours were recorded.

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sirohi	Erinpura	6th August	6·40
Ajmer Merwara	Jassakhera	8th ,,	4·33
Dholpur	Dholpur	19th ,,	4·49
Shahpura	Ratlai	20th ,,	6·66
Deoli	Bundi	,, ,,	4·95
Kotah	Kotah	,, ,,	4·37
	Manoharthana	21st ,,	6·60
Shahpura	Ratlai	,, ,,	5·80
	Khairabad	,, ,,	5·20
Partabgarh	Partabgarh	22nd ,,	4·90
Kotah	Chipabarod	28th ,,	9·03
Shahpura	Ratlai	,, ,,	7·35
Kotah	Atroo	,, ,,	7·13
	Ikbra	,, ,,	6·31
Shahpura	Shergarh	,, ,,	5·60
Kotah	Manoharthana	,, ,,	4·85
	Khanpur	,, ,,	4·40
	Mangrol	,, ,,	4·00
	Baran	29th ,,	10·02
	Atroo	,, ,,	9·47
	Manoharthana	,, ,,	8·25

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KOTAH	Etawa	29th August	7·35
	Sangod	" "	6·75
	Mangrol	" "	6·65
	Khanpur	" "	6·22
	Sultanpur	" "	6·08
SHAHPURA	Shergarh	" "	6·03
KOTAH	Chipabarod	" "	5·95
SHAHPURA	Ratlai	" "	5·73
KOTAH	Ikbra	" "	5·00
	Shahabad	" "	4·61
	Mandona	" "	4·60
KARAULI	Mandrael	" "	4·42
KOTAH	Kotah	" "	4·04
SHAHPURA	Antah	30th "	8·26
	Ratlai	31st "	7·00
KOTAH	Ikbra	" "	6·16
	Etawa	" "	4·40
	Khanpur	" "	4·30

The rainfall of this division was particularly heavy in Kotah and Udaipur and was lighter than usual in Jaipur and Alwar. The following gives comparative data for the principal states :—

STATE.	RAINFALL.			
	Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Jodhpur	5·81	4·17	+ 1·64	+ 39
Jaipur	5·14	9·61	− 4·47	− 47
Alwar	3·03	9·65	− 6·62	− 69
Dholpur	9·95	...	...	...
Karauli	11·10	10·52	+ 0·58	+ 6
Kotah	24·26	9·76	+ 14·50	+ 169
Ajmer Merwara	10·90	6·60	+ 4·30	+ 65
Udaipur	16·91	8·53	+ 8·38	+ 98
Sirohi	15·17	14·52	+ 0·65	+ 4

In Central India rain fell almost uninterruptedly throughout the month, but was most general and heaviest between the 5th and the 9th, the 13th and 16th, the 19th and the 22nd, and the 28th to the 31st. The following falls of over 4″ in 24 hours were recorded on the dates given below :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
INDORE	Indore	1st August	4·10
GWALIOR	Jaora	5th "	4·18
	Sitaman	6th "	4·27
	Ali Rajpur	7th "	7·05
	Sonkach	12th "	6·03
BUNDELKHAND	Chhatarpur	" "	4·70
REWAH	Umaria	19th "	5·50
GWALIOR	Shujaulpur	20th "	5·35
MAIHAR	Maihar	" "	5·33
BHOPAL AGENCY	Sironj	" "	5·27
GWALIOR	Sonkach	" "	4·97
REWAH	Rewah	" "	4·96
BHOPAL AGENCY	Narsinghgarh	21st "	12·75
	Khilchipur	" "	8·00
	Maksudangarh	" "	7·52
	Biaora	" "	7·34
	Bhopal	" "	6·20
	Sehore	" "	6·00
GWALIOR	Agar, Western Malwa	" "	5·66
BHOPAL AGENCY	Kurwai	" "	5·30
GWALIOR	Sailana	" "	4·19
BHOPAL AGENCY	Khilchipur	22nd "	8·98
REWAH	Rewah	28th "	4·29
BHOPAL AGENCY	Sironj	" "	4·23
GWALIOR	Shujaulpur	" "	4·10
BHOPAL AGENCY	Khilchipur	29th "	6·40
	Kurwai	" "	5·70
	Narsinghgarh	" "	5·07
GWALIOR	Agar, Western Malwa	" "	4·62
	Bujrangarh	" "	4·50
	Goona	" "	4·42
	"	30th "	5·74
	Bujrangarh	" "	4·50

The total rainfall of the month was about 25% in excess of the normal, as is shown in the following table which gives comparative data for the larger states of Central India:—

STATE.	RAINFALL.			
	Average Actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Indore	13·98	7·59	+6·39	+84
Rutlam	19·43	10·26	+9·17	+89
Bhopal Agency	21·81	13·27	+8·54	+64
Gwalior	14·50	10·50	+4·00	+38
Nagode	7·53	12·72	−5·19	−41
Maihar	14·65	13·55	+1·10	+ 8
Rewah	13·22	14·12	−0·90	− 6
Bundelkhand	13·12	13·12	0	0

Almost uninterrupted rain fell over the Central Provinces from the 1st to the 14th. Fine weather followed during the 15th, 16th and 17th, but from the 18th to the 21st there occurred another burst of rain. From the 22nd to the 26th the weather was moderately fine, while from the 27th to the end of the month general rain again fell. There were thus three periods of general rain coinciding with the passage of the four more important storms of the month as the period from the 1st to the 14th covered the passage of two storms. Numerous heavy to very heavy falls of rain were reported during each of the above periods, but the heaviest rainfall of the month was reported during the 12th and 13th when the second storm of the month was passing through the Central Provinces. The following falls exceeding 4″ in 24 hours were recorded during the first 14 days of the month:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CHANDA	Brahmapuri	1st August	6·39
NAGPUR	Ramtek	" "	4·37
BILASPUR	Pandaria	2nd "	7·34
DAMOH	Tejgarh	" "	4·10
BILASPUR	Mungeli	" "	4·09
DAMOH	Damoh	3rd "	9·75
MANDLA	Dindori (Ramgarh)	" "	8·56
DAMOH	Hatta	3rd August	7·60
JUBBULPORE	Murwara	" "	6·19
JUBBULPORE	Sihora	" "	4·15
DAMOH	Damoh	6th "	5·14
NAGPUR	Katol	8th "	4·84
RAIPUR	Dhamtari	12th "	10·26
CHANDA	Armori	" "	9·05
CHANDA	Chanda	" "	6·24
JUBBULPORE	Jubbulpore	" "	5·78
NAGPUR	Umrer	13th "	10·30
CHANDA	Brahmapuri	" "	8·39
NAGPUR	Nagpur	" "	7·83
CHANDA	Chimur	" "	7·00
WARDHA	Wardha	" "	6·40
CHANDA	Chanda	" "	5·01
BHANDARA	Bhandara	" "	4·78
WARDHA	Hinganghat	" "	4·57
BETUL	Betul (Badnur)	" "	4·54
CHHINDWARA	Sausar	" "	4·45
BETUL	Multai	" "	4·32
NAGPUR	Katol	" "	4·25
CHANDA	Armori	" "	4·09
NAGPUR	Nagpur	14th "	4·73

The second rainfall period was of short duration lasting only from the 18th to the 21st, but falls exceeding 4″ in 24 hours were numerous, as is shown below:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SAMBALPUR	Sambalpur	19th August	4·10
JUBBULPORE	Sihora	20th "	7·98
	Jubbulpore	" "	6·40
DAMOH	Tejgarh	" "	5·78
HOSHANGABAD	Pachmarhi	" "	5·37
MANDLA	Dindori (Ramgarh)	" "	4·97
JUBBULPORE	Murwara	" "	4·89
DAMOH	Damoh	" "	4·62
SAUGOR	Khurai	21st "	5·00

The rainfall of the third period was more scattered and less general than that of the two preceding periods, but

the falls of rain were heavy in many places and exceeded 4″ in 24 hours at the following stations :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BILASPUR	Koorba	27th August	7·06
	Bilaspur	,, ,,	6·52
JUBBULPORE	Murwara	28th ,,	5·75
MANDLA	Mandla	,, ,,	5·20
BILASPUR	Pandaria	,, ,,	4·26

The total rainfall of the month was in excess of the normal in all parts of the Central Provinces, but especially so in the western division. The following gives comparative data for the different districts of this division :—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
CENTRAL PROVINCES, WEST.	Wardha	14·21	8·46	+5·75	+68
	Nagpur	19·15	9·72	+9·43	+97
	Chhindwara	12·46	7·77	+4·69	+60
	Hoshangabad	20·10	13·57	+6·53	+48
	Betul	15·76	8·87	+6·89	+80
	Nimar	12·55	7·13	+5·42	+76

The following gives comparative data for the different divisions of the Central Provinces and for Berar :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.	Average actual, August 1900.	Average normal, August.
	Inches.	Inches.	Inches.			
Central Provinces West	16·41	9·87	+6·54	+66	14·8	12·8
,, ,, Central	18·95	12·86	+6·09	+47	18·2	14·1
,, ,, East	18·07	12·54	+5·53	+44	18·1	13·2
Berar	10·51	7·60	+2·91	+38	11·3	...

The monsoon was steady and above the normal strength along the West coast and the various districts of the Konkan received practically uninterrupted rain from the beginning to the end of the month. There was, however, a marked change in the amount of rain after the 17th, a date which, it will be remembered, coincided with the commencement of a break in the rains over a large part of North-Western India. This change in the character of the rainfall is shown by the following table which gives the mean rainfall of each of the districts of the Konkan division for each seventh day from the first of the month :—

DISTRICT.	AVERAGE ACTUAL RAINFALL DURING 24 HOURS PRECEDING 8 A.M. OF				
	1st August.	8th August.	15th August.	22nd August.	29th August.
North Kanara	0·98	0·87	0·79	0·38	0·18
Savantvadi	1·65	0·35	0·98	0·29	0·42
Ratnagiri	2·21	1·05	1·27	0·19	0·26
Kolaba	7·67	2·39	2·60	0·20	0·33
Thana	2·93	1·21	2·82	0·19	0·14

Almost without exception the heaviest falls of the month were recorded on the 1st or 2nd, but bursts of heavy rain also occurred between the 10th and the 16th. The following falls exceeding 8″ in 24 hours were recorded during these two periods :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KOLABA	Pen	1st August	12·00
	Khalapur	,, ,,	11·29
	Karjat	,, ,,	11·20
	Panvel	,, ,,	9·86
	Matheran	,, ,,	9·50
RATNAGIRI	Mandangad	,, ,,	8·62
THANA	Mokhada	,, ,,	8·30
RATNAGIRI	Mandangad	2nd ,,	12·00
KOLABA	Matheran	,, ,,	9·84
SAVANTVADI	Kudal	10th ,,	8·20
KOLABA	Matheran	13th ,,	12·78
	,,	14th ,,	8·05
THANA	Thana	,, ,,	8·01

The following gives comparative data for the different districts of the Konkan division :—

Division.	District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Konkan	North Kanara	26·30	20·68	+5·62	+27
	Savantvadi	32·06	...	...	...
	Ratnagiri	34·62	27·61	+7·01	+25
	Kolaba	50·86	30·25	+20·61	+68
	Thana	38·73	17·73	+21·00	+118

In the Karnatak division the rainfall of the month was irregularly distributed. In Dharwar, Belgaum and the South Maratha states fairly continuous rain was received between the 1st and the 20th after which the rain fell off and only light showers were reported. In Bijapur, however, the weather was drier. Light showers were received on the 1st and 2nd, on the 10th and 11th, and on the 17th and 18th after which the fall practically ceased. The falls exceeding 4″ in 24 hours recorded within this division were as follows :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Belgaum	Khanapur	1st August	5·04
	Chandgad	3rd "	4·32
	Khanapur	10th "	4·90
	Chandgad	11th "	4·98

The following gives comparative data for the different districts of the Karnatak showing that except in Bijapur the month's rainfall exceeded the normal :—

Division.	District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal
		Inches.	Inches.	Inches.	
Karnatak	Dharwar	4·75	4·00	+0·75	+19
	Bijapur	1·16	5·19	—4·03	—78
	Belgaum	14·58	7·36	+7·22	+98
	Kolhapur and other Southern Maratha country States.	8·45	4·80	+3·65	+76

At four stations in Bijapur the total rainfall of the month was less than 1″. The following gives data :—

District.	Station.	Rainfall. Actual, August 1900.	Normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Bijapur	Bijapur	0·53	4·49	—3·96	—86
	Indi	0·68	6·56	—5·88	—90
	Sindgi	0·45	6·55	—6·10	—93
	Hungund	0·74	3·69	—2·95	—80

The rainfall of the South Deccan shows the same general characteristics as that of the Karnatak, *viz.*, fairly general and fairly heavy rainfall up to the 17th and thereafter fine weather with only light and scattered showers, but Sholapur like Bijapur had light rain throughout and was short of the normal. The following gives comparative data for the different districts of the South Deccan :—

Division.	District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
South Deccan	Satara	14·15	6·40	+7·75	+121
	Sholapur	2·13	5·37	—3·24	—60
	Poona	15·96	8·82	+7·14	+81

At the hill station of Malcolmpeth the total rainfall of the month was 157·77″, while last year for the same month it was only 29·73″.

In the North Deccan or Khandesh there was fairly general rain up to the 17th and light scattered showers from the 18th to the end of the month. The following gives comparative data for the three districts of this division :—

Division.	District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
North Deccan or Khandesh.	Ahmednagar.	2·89	3·77	− 0·88	− 23
	Nasik . .	18·89	7·97	+10·92	+ 137
	Khandesh .	8·72	3·88	+ 4·84	+125

In Gujarat there were partial breaks in the rains between the 17th and the 21st and from the 26th to the end of the month, but otherwise rain was continuous throughout the month. The rainfall was very heavy on the 1st and 2nd, and again on the 14th, 15th and 16th 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.
Surat Agency .	Bansda . . .	1st August .	7·68
	Sachin . . .	" " .	6·47
Surat . . .	Surat . . .	" " .	6·30
	Mandvi . . .	" " .	6·15
	Rander . . .	" " .	5·26
Surat Agency .	Dharampur . .	" " .	5·20
	" . .	2nd " .	8·15
	Bansda . . .	" " .	7·30
Surat . . .	Pardi . . .	" " .	7·30
Kaira . . .	Anand . . .	" " .	5·17
Surat . . .	Balsar . . .	" " .	5·12
Surat Agency .	Dharampur . .	14th " .	8·68
	Bansda . . .	" " .	8·32
Surat . . .	Pardi . . .	" " .	6·57
Broach . . .	Hansot . . .	" " .	6·33
Surat . . .	Valod . . .	" " .	6·16
	Balsar . . .	" " .	6·09
Broach. . .	Amod . . .	" " .	5·70
	Ilav . . .	" " .	5·10
Kaira . . .	Borsad . . .	15th August .	6·50
Surat Agency . .	Bansda . . .	" " .	6·50
Panch Mahals .	Kalol . . .	" " .	5·60
Broach . . .	Vagra . . .	" " .	5·50
Kaira . .	Anand . . .	" " .	5·20

The following gives comparative data for the districts of this division :—

Division.	District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Gujarat . .	Surat . .	25·49	13·55	+11·94	+ 88
	Surat Agency	44·55	...	...	...
	Broach . .	17·80	7·99	+ 9·81	+123
	Kaira . .	16·48	8·26	+ 8·22	+100
	Panch Mahals	15·92	9·85	+ 6·07	+ 61
	Ahmedabad .	12·50	7·33	+ 5·17	+ 71

In Kathiawar there was heavy rain from the 1st to the 5th and again from the 10th to the 16th, while at other times only showers were received. The following falls of over 5″ in 24 hours were recorded during these bursts of rainfall :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kathiawar . .	Porbandar . . .	1st August .	13·57
	Junagad . . .	" " .	10·86
	Dhoraji . . .	" " .	9·82
Rewa Kantha. .	Chhota Udepur . .	" " .	8·78
Kathiawar . .	Manikvada . .	" " .	8·03
	Jafrabad . . .	" " .	5·90
	Veraval . . .	2nd " .	5·30
	Navanagar . .	" " .	5·20
	Junagad . . .	" " .	5·08
	Rajkot . . .	3rd " .	8·54
	Gondal . . .	" " .	6·10
	Junagad . . .	" " .	5·14

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Athiawar	Porbandar	13th "	10·21
	Veraval	" "	5·60
	"	14th "	11·35
	Vankaner	" "	11·00
Mahi Kantha	Bayad	" "	7·38
Rewa Kantha	Chhota Udepur	" "	6·24
Kathiawar	Jasdan	" "	6·05
	Rajkot	15th "	9·16
	Gondal	" "	5·84
	Jasdan	" "	5·75
Palanpur	Tharad	" "	5·52
Rewa Kantha	Rajpipla	" "	5·42
Palanpur	Palanpur	16th "	5·55

The following gives comparative data for the different districts of Kathiawar :—

Division.	District.	Rainfall.			
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Gujarat, Kathiawar and Cutch States.	Rewa Kantha	18·86	11·83	+ 7·03	+ 59
	Mahi Kantha	16·42	11·57	+ 4·85	+ 42
	Palanpur	14·09	10·98	+ 3·11	+ 29
	Kathiawar	22·88	4·83	+ 18·05	+ 374
	Cutch	9·78	3·48	+ 6·30	+ 181

In Sind the rainfall was generally irregularly distributed and none fell after the 15th, but the amounts received were large and exceeded 1″ in 24 hours at the following stations on the following dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Thar and Parkar	Nagar Parkar	2nd August	1·38
	"	3rd "	1·58
Hyderabad	Hala	" "	1·25
Thar and Parkar	Nagar Parkar	8th "	3·45
Hyderabad	Hyderabad	8th August	2·30
Kurrachee	Tatta	" "	1·07
Thar and Parkar	Umarkot	9th "	1·98
Hyderabad	Hala	" "	1·05
Thar and Parkar	Nagar Parkar	10th "	3·05
Kurrachee	Kurrachee	" "	1·17
Upper Sind Frontier	Jacobabad	12th "	2·70
Thar and Parkar	Nagar Parkar	14th "	1·23
Kurrachee	Shahbandar	15th "	1·88
Thar and Parkar	Nagar Parkar	" "	1·07

The general rainfall of Sind was about 50 °/₀ heavier than usual, this is shown below :—

Province.	Rainfall.				Number of rainy days.	
	Average actual, August 1900.	Average normal, August.	Variation actual from normal, August 1900.	Percentage variation from normal.	Average actual, August 1900.	Average normal, August.
	Inches	Inches.	Inches.			
Sind	2·97	1·94	+ 1·03	+ 53	3·6	...

Last year it will be remembered that over North Bombay and from that region northward over Rajputana, the west of Central India, the south-east of the Punjab, and the west of the North-Western Provinces the rains during August practically failed entirely. On the other hand, this year the rainfall has been heavier, relatively to the average, in parts of this area than in any other part of India and the contrast between the rainfall conditions of this and last year is very remarkable. The following gives comparative data :—

Division.	Average actual, August 1900.	Average actual, August 1899.
	Inches.	Inches.
Central India, East	15·17	2·91
Rajputana, East, Central India, West	11·81	0·28
West Rajputana	5·44	0·02
South East Punjab	6·07	0·92
North-Western Provinces, West	6·72	0·59
Gujarat	19·62	0·96
Kathiawar and Cutch	18·97	0·34
Sind	2·97	0·01

Along the Malabar coast, as in other parts of the West coast, the rainfall of the month was in excess of the average. In Travancore and Malabar there was daily rain throughout the greater part of the month but the principal period of rainfall was between the 4th and the 16th 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.
MALABAR	Vayittiri	4th August	9·80
	Nilambur	" "	7·90
TRAVANCORE STATE	Peermade	" "	6·60
	Do.	5th "	9·50
MALABAR	Vayittiri	" "	6·08
	Nilambur	" "	5·80
TRAVANCORE STATE	Peermade	7th "	6·35
MALABAR	Vayittiri	8th "	6·80
	Do.	9th "	6·90
	Do.	10th "	5·85
	Manantoddy	11th "	8·46
	Nilambur	12th "	5·76
	Manantoddy	" "	5·68
	Vayittiri	" "	5·60
	Tirurangadi	13th "	5·64
	Calicut	" "	5·35
TRAVANCORE STATE	Peermade	" "	5·25
	Do.	14th "	7·05

After the 16th the rainfall decreased very markedly in amount and except for a temporary increase on the 25th, 26th and 30th was light from the 17th to the end of the month. In this respect the rainfall was similar to that in other parts of Western and North-Western India. The following gives data for the three districts of the Malabar division :—

DIVISION.	DISTRICT OR STATE.	RAINFALL.			
		Average actual, August 1900.	Average, normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
MALABAR	Travancore state	12·10	...	—	—
	Malabar	28·41	16·23	+12·18	+75
	South Canara	27·57	27·59	—0·02	0

In South Madras there were only scattered showers throughout the month, but on the 29th the showers became heavy and the following falls exceeding 2″ in 24 hours were recorded :—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 29th August.
		Inches.
MADURA	Tiruppattur	3·80
	Tirumangalam	2·72
	Melur	2·50
	Madura	2·26

The following gives comparative data for the two districts of South Madras :—

DIVISION.	DISTRICT.	RAINFALL			
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inch.	
SOUTH MADRAS	Madura	1·49	2·28	—0·79	—35
	Tinnevelly	0·51	0·85	—0·34	—40

In South Central Madras there were light scattered showers between the 1st and the 28th, but between the 29th and the 31st the showers increased both in amount and extent, and the following falls exceeding 2″ in 24 hours were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
SALEM	Tattaiengarpettai	29th August	2·83
	Tirupattur	" "	2·42
COIMBATORE	Perundurai	" "	2·03

The following gives comparative data for the two districts of South Central Madras :—

Division.	District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
South Central Madras.	Salem	1'77	4'51	—2'74	—61
	Coimbatore	1'46	2'28	—0'82	—36

In Central Madras there were showers on the 1st, again between the 9th and the 12th and finally between the 25th and the 30th, but the amounts were small and only exceeded 2″ in 24 hours at the following stations on the following dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kurnool	Allagada	30th August	3'22
Anantapur	Bukkapatnam	" "	2'83
Cuddapah	Piler	" "	2'63
	Proddatur	" "	2'56
Anantapur	Hindupur	" "	2'21
	Penukonda	" "	2'20

The following gives comparative data for the four districts of Central Madras :—

District.	Rainfall. Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Cuddapah	1'25	4'34	—3'09	—71
Anantapur	1'81	3'50	—1'69	—48
Bellary	1'93	3'54	—1'61	—45
Kurnool	2'32	5'12	—2'80	—55

The East coast received more rain than Central and South Madras, but in these divisions also the fall was less than the average. In the north division of the East coast there were periods of general rain on the 1st, between the 5th and the 12th, between the 17th and 19th, and between the 24th and the end of the month. The largest amounts fell on the 11th and 12th, on the 17th, 18th and 19th, and on the 26th, 27th and 28th when storms from the Bay were crossing the Orissa coast. The following shows the amounts exceeding 2″ in 24 hours recorded on these occasions :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M of date.
			Inches.
Ganjam	Gopalpur	11th August	4'53
	Chatrapur	" "	4'46
	Purushottapur	" "	3'68
	Balliguda	" "	3'65
	Ichchhapuram	" "	3'41
	Berhampur	" "	3'37
	Rambha	" "	2'90
	Daringabadi	" "	2'64
	Udayagiri	" "	2'50
	Aska	" "	2'16
	Ramagiri	12th "	5'50
	Surada	" "	3 10
Vizagapatam	Gunupur	" "	2'87
	Nowrangapur	" "	2'85
	Malkanagiri	" "	2'56
Ganjam	Sompeta	" "	2'39
	Rambha	" "	2'35
Vizagapatam	Koraput	" "	2'19
Ganjam	Perlakimedi	" "	2'17
	Narsannapeta	" "	2'13
Vizagapatam	Padwa	" "	2'10
	Palkonda	" "	2'10
Ganjam	Daringabadi	17th "	2'20
	"	18th "	3'17
	Balliguda	" "	3'04
	"	19th "	7'35
	Udayagiri	" "	5'06
	Surada	" "	2'93
	Russellkonda	" "	2'91
Vizagapatam	Nowrangapur	26th "	2'42
	Jeypore	" "	2'30
Ganjam	Tekkali	27th "	2'89
Vizagapatam	Bobbili	" "	2'65
	Jeypore	" "	2'20
Ganjam	Purushottapur	28th "	2'45

The following gives comparative data for the four districts composing the division of East coast, North :—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
EAST COAST, NORTH.	Ganjam . .	11·71	8·23	+3·48	+42
	Vizagapatam .	5·46	6·26	—0·80	—13
	Godavari .	4·66	6·35	—1·69	—27
	Kistna . .	2·03	5·80	—3·77	—65

In the central division of the East Coast the month's rainfall was much lighter than in the more northern division, and light showers only were received generally between the 8th and the 12th and the 25th to the 30th. The following gives comparative data for the district forming this division :—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
EAST COAST CENTRAL.	Nellore . .	Inch. 0·65	Inches. 3·47	Inches. —2·82	—81

In the south division of the East Coast the rainfall was heavier than in the central division, the showers in the last week of the month having been both more extensive and heavier. The following is a record of the falls exceeding 2″ in 24 hours in this division :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SOUTH ARCOT .	Mannargudi . .	28th August .	2·92
	Merkanam . .	,, ,, .	2·24
NORTH ARCOT .	Puttur . . .	29th ,, .	3·16
	Tiruvettiyur . .	,, ,, .	2·93
	Chandragiri . .	,, ,, .	2·43
	Vellore . . .	30th ,, .	2·82
SOUTH ARCOT .	Tindivanam . .	31st ,, .	4·32
	Tiruvanamalai .	,, ,, .	4·06
	Gingee . . .	,, ,, .	3·38

The total rainfall of the month was, however, relatively to the normal, very much below the average. The following gives comparative data of the five districts included in this division :—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
EAST COAST, SOUTH.	Madras . .	1·51	4·68	—3·17	—68
	Chingleput .	1·59	5·82	—4·23	—73
	North Arcot .	1·47	5·08	—3·61	—71
	South Arcot .	3·20	5·62	—2·42	—43
	Tanjore . .	1·44	4·29	—2·85	—66
	Trichinopoly .	1·98	4·11	—2·13	—52

The rainfall of the month was more generally below the normal in Madras than in any other part of the country. The following gives comparative data for the seven divisions of the Presidency :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, August 1900.	Average normal, August.	Variation of actual from normal, August 1900.	Percentage variation from normal.	Average actual, August 1900.	Average normal, August.
	Inches.	Inches.	Inches.			
Malabr .	28·11	19·92	+8·19	+41	24·9	21·4
Madras South Central.	1·62	3·49	—1·87	—54	3·5	5·6
East Coast, North.	6·48	7·51	—1·03	—14	10·2	11·0
Madras Central	1·81	4·18	—2·37	—57	4·3	6·7
East Coast, Central.	0·65	3·47	—2·82	—81	2·0	5·8
East Coast, South.	1·90	4·97	—3·07	—62	3·5	7·2
Madras, South	1·07	1·62	—0·55	—34	1·5	2·8

In the South-East trades region the rainfall of the month was lighter than usual, the total rainfall at Seychelles having been 1·12″ instead of the normal 3·20″, and at Zanzibar 1·32″ instead of 1·83″. The rainfall in this region was hence in marked contrast to that of the same month last year.

Tabl

Abstract of Observations taken at 8 A.M. at 2.

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure 8 A.M. in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
	I.—Burma Coast and Bay Islands.				−·040								85·0	+0·3	76·2	+1·1	80·6	+0·7	8·8					16
1	Tenasserim and Bay Islands.	Car Nicobar	25	29·771		29·724	29·822	30th	29·664	8th	·158	80·3	87·0		78·4		82·8		8·6	89·6	21st	73·4	7th	16
		Port Blair	61	29·782	−·004	29·774	29·852	30th	29·651	8th	·201	81·3	85·9		78·7*		82·3*		7·2	90·1	28th	74·2	7th	15
		Mergui	96	29·752	−·034	29·781	29·815	30th	29·667	8th	·148	78·3	84·4	−0·1	74·8	+2·8	79·6	+1·4	9·6	89·1	20th	71·9	2nd	17
		Tavoy	26	29·808	−·05	29·765	29·884	31st	29·699	8th	·185	77·7	83·4	+0·9	75·0	+1·5	79·2	+1·2	8·4	88·2	23rd	73·0	4 days	15
		Moulmein	94	29·705	−·051	29·737	29·787	30th & 31st.	29·588	8th	·199	78·1	83·0	−0·2	74·8	+0·9	78·9	+0·4	8·2	88·5	8th	71·8	14th	16
2	Lower Burma	Rangoon	41	29·741	−·047	29·719	29·838	30th	29·622	8th	·216	78·7†	85·4*	+0·5*	76·1*	+0·4*	80·8*	+0·5*	9·3*	90·6	22nd	73·4	14th	17
		Bassein	27	29·750	−·040	29·712	29·855	30th	29·649	8th	·206	79·2	84·7	+0·3	77·1	+1·5	80·9	+0·9	7·6	88·7	11th, 19th & 23rd.	74·1	4th	14
		Diamond Island.	41	29·746	−·033	29·722	29·852	30th	29·650	9th	·202	80·9	84·3	−0·1	78·0	?	81·2	?	6·3	87·1	19th	74·2	29th	12
5	Arakan	Akyab	20	29·680	−·060	29·643	29·769	29th	29·552	16th	·217	79·6	85·0	+0·6	74·9	?	80·0	?	10·1	89·9	9th	72·5	14th	17
3	Central Burma	Toungoo	183	29·580	−·038	29·706	29·672	31st	29·491	25th	·181	79·6	86·7	+0·4	74·4	−0·5	80·6	−0·1	12·3	91·6	12th	72·6	1st, 29th & 30th.	19
	II.—Burma Inland.				−·033								89·6	−0·3	76·7	+0·8	83·2	+0·3	12·9					21
3	Central Burma	Thayetmyo	130	29·606	−·043	29·678	29·708	31st	29·512	24th & 25th.	·196	80·5	89·1	+0·3	76·6	+0·6	82·9	+0·5	12·5	95·4	23rd	73·9	30th	21
4	Upper Burma	Minbu	165	29·565	?	29·674	29·675	31st	29·476	25th	·199	79·6	88·8	−1·9	77·5	+0·7	83·2	−0·6	11·3	94·1	22nd & 23rd	74·6	31st	19
		Yamethin	657	29·086	?	29·694	29·177	31st	28·991	24th	·186	78·6	89·2	−1·0	74·9	+0·6	82·1	−0·2	14·3	95·0	24th	71·2	2nd	23
		Mandalay	250	29·499	?	29·697	29·639	31st	29·390	25th	·219	82·2	91·9	−1·2	78·0	+0·7	85·0	−0·3	13·9	97·0	24th	74·6	1st	22
		Kindat	377	29·349	−·045	29·680	29·441	31st	29·257	25th	·184	79·2	87·6	−0·7	76·6	+0·4	82·1	−0·2	11·0	94·3	25th	72·3	9th	22
		Bhamo	381	29·341	−·010	29·675	29·476	31st	29·219	25th	·257	80·2	90·8	+2·9	76·7	+1·6	83·8	+2·3	14·1	96·5	10th & 25th.	74·1	31st	22
4(a)	Burma Hill Stations.	Maymyo										71·5	71·6‡		62·6		67·1‡		9·0	76·0	24th	59·0	9th	17
		Taunggyi										67·9	70·1	−5·4	64·2	+0·5	67·2	−2·5	5·9	73·2	5th, 8th & 24th.	63·0	6 days	10
		Lashio		27·032	+·040		27·143	31st	26·932	24th	·216	74·4	84·7	+2·2	69·9	+1·2	76·8	+1·7	14·8	90·5	9th, 13th & 24th.	68·0	7th & 23rd.	22
	III.—Assam.				−·026								90·8	+2·3	78·8	+1·2	84·8	+1·8	12·0					21
7	Surma	Silchar	104	29·586	−·030	29·641	29·691	31st	29·464	17th	·227	82·6	94·0	+4·8	77·9	+1·2	86·0	+3·0	16·1	100·6	17th	73·3	12th	27
9	Brahmaputra	Sibsagar	333	29·362	−·022	29·650	29·450	31st	29·282	16th	·168	81·2	90·3	+0·5	78·3	+0·5	84·3	+0·5	12·0	96·7	19th	75·0	31st	21
		Dhubri	115	29·541	−·027	29·610	29·639	30th	29·456	17th	·183	82·5	88·2	+1·7	80·2	+2·0	84·2	+1·9	8·0	93·2	17th	76·8	28th	16
	IV.—Bengal and Orissa.				−·037								89·3	+1·5	79·1	+1·2	84·2	+1·3	10·3					27
6	East Bengal	Chittagong	87	29·579	−·060	29·613	29·674	30th	29·440	17th	·234	81·6	87·7	+2·5	77·3	+1·3	82·5	+1·9	10·4	92·0	10th & 26th.	76·1	4 days	15
		Noakhali	43	29·615		29·605	29·721	30th	29·466	17th	·255	81·4	87·5		76·6		82·1		10·9	91·2	10th & 17th.	74·8	4th, 13th & 31st.	16
		Comilla	36	29·631		29·613	29·730	31st	29·521	17th	·209	81·7	90·4		77·9		84·2		12·5	96·3	17th	75·8	8th	20
		Sirajganj	49	29·582		29·580	29·688	30th	29·456	17th	·232	82·7	89·2		80·0		84·7		9·2	93·8	17th	75·7	26th	18
		Narayanganj	26	29·620	−·034	29·594	29·723	30th	29·493	17th	·230	83·1	89·2	+1·5	79·9	+1·0	84·6	+1·3	9·3	94·1	26th	77·2	26th	16
		Barisal	13	29·630	−·030	29·588	29·734	30th	29·485	17th	·249	83·2	88·4	+2·1	79·2	+1·3	83·8	+1·7	9·2	93·3	10th	76·1	16th	17
		Mymensingh	59	29·597	−·029	29·607	29·697	30th	29·465	17th	·232	83·2	89·4	+2·2	79·6	+2·0	84·5	+2·1	9·8	94·7	17th	77·5	3rd & 10th,	17
10	Deltaic Bengal	Faridpur	46	29·601		29·595	29·706	30th	29·481	17th	·225	82·7	89·6		79·3		84·4		10·3	95·3	17th	74·9	30th	20
		Jessore	33	29·593	−·038	29·573	29·693	30th	29·459	17th	·234	82·6	89·5	+0·8	79·5	+0·8	84·5	+0·8	10·0	94·0	26th	76·7	2nd	17
		Calcutta	21	29·589	−·040	29·555	29·702	31st	29·382	18th	·320	82·3	89·0	+1·9	78·9	+0·8	84·0	+1·4	10·1	94·1	26th	76·2	5th	17
		Saugor Island	25	29·564	−·065	29·533	29·683	31st	29·193	18th	·490	83·0	87·8	+0·6	80·6	+1·0	84·2	+0·8	7·2	92·9	10th	78·1	18th, 19th & 23rd.	14
		Krishnagar	47	29·575		29·569	29·679	31st	29·461	17th	·218	83·2	90·5		79·0		84·8		11·5	95·3	26th	76·7	3rd, 26th & 31st.	19
		Midnapore	149	29·447		29·542	29·566	31st	29·252	18th	·314	82·5	89·6		78·7		84·2		10·9	92·3	5 days	76·6	12th	15

* Mean of 30 days. † Mean of 29 days.

tations in India, Burma, etc., in August, 1900.

Wind Direction. Number of winds from N.	NE.	E.	SE.	S.	SW	W.	NW	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st August 1900.	Normal rainfall for period, 1st June to 31st August	Variation from normal of period, 1st June to 31st August.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																			30·24	27·79	+4·78					I.—Burma Coast and Bay Islands.		
	1			5	8	5	1	S 51° W	5·3	5·3			89	·918	8·2	12			9·29			26·87			3·04	Car Nicobar§	Tenasserim and Bay Islands.	1
					15	15	1	S 69° W	15·8		9·6	+65	87	·934	8·0	19			13·44	15·20	−1·76	34·01	49·97	−15·96	2·36	Port Blair.		
	1							N 45° E	1·9	1·7	1·6	+ 6	93	·892	5·9	29			26·96	28·85	−1·89	92·73	92·47	+ 0·26	3·77	Mergui.		
					6	3	5	S 86° W	2·1				95	·904	9·6	31			53·27	43·19	+10·08	155·61	129·63	+25·98	6·27	Tavoy.		
									2·7	3·0	3·2	− 6	91	·881	8·1	25	26·18	−1·18	55·07	38·96	+16·11	120·84	120·50	+ 0·34	7·90	Moulmein		
		1	1	10	11	6	1	S 36° W	5·0		4·7	+ 6	93†	·925†	8·3	23	22·73	+0·27	23·69	18·19	+5·50	66·23	57·38	+ 8·85	2·97	Rangoon .	Lower Burma.	2
			4	2	8	4	3	S 47° W	5·5		3·4	+62	93	·935	8·0	24	25·27	−1·27	34·41	23·25	+11·16	84·11	70·69	+13·42	4·31	Bassein.		
	1		1	3	15	10	1	S 57° W	12·8	12·8	6·7	+91	86	·917	8·3	23	22·10	+0·90	21·85	22·69	−0·84	74·85	72·17	+ 2·68	2·79	Diamond Island.		
1	1	9	8	7	1	3	1	S 45° E	3·4		3·2	+ 6	95	·960	8·9	28	26·09	+1·91	38·84	41·26	−2·42	32·73	136·79	− 4·06	4·54	Akyab. .	Arakan.	5
		4	14	10	2			S 32° E	3·6	3·6	3·9	− 8	90	·927	9·1	24	23·91	+0·09	25·58	18·50	+7·08	53·63	51·02	+ 2·61	6·55	Toungoo .	Central Burma.	3
																			10·21	8·51	+1·71					II.—Burma Inland.		
			8	18	1			S 12° E	5·0		5·9	−15	88	·918	7·6	17	12·36	+4·64	11·85	6·57	+5·28	32·00	20·34	+11·66	4·50	Thayetmyo .	Central Burma.	3
1		1	22	4	2			S 37° E	8·2	9·8			88	·901	7·8	10			5·47	5·10	+0·37	21·53	13·56	+ 7·97	1·34	Minbu .	Upper Burma.	4
			15	11				S 26° E	4·8	5·0			88	·865	8·7	11			6·60	5·89	+0·71	18·06	12·82	+ 5·24	1·64	Yamethin.		
1		2	8	14	1			S 20° E	6·2	6·3			83	·910	5·6	10			5·88	3·88	+2·00	12·79	12·84	− 0·05	1·20	Mandalay.		
	1	1	2	2				S 49° E	0·5	0·5			94	·950	9·5	23			17·13	13·21	+3·92	56·80	40·33	+16·47	2·10	Kindat.		
	2	2			1	2		N 45° E	1·6	1·9			90	·923	8·7	19			14·35	16·38	−2·03	41·36	48·74	− 7·38	2·20	Bhamo.		
													91	·703												Maymyo .	Burma Hill Stations.	1(a)
	2		5	10	13		1	S 14° W					90	·622	7·9	23			12·93	14·63	−1·70	33·19	35·76	− 2·57	1·35	Taunggyi.		
													90	·766	9·2	18			11·07	12·73	−1·66	38·32	35·51	+ 2·81	3·35	Lashio.		
																			9·33	16·54	−7·20					III.—Assam.		
								Calm	0·8	1·4	3·0	−53	88	·990	7·8	14	21·82	−7·82	12·91	19·66	−6·75	51·65	59·49	− 7·84	2·10	Silchar .	Surma.	7
4	3	1		1	3	1	1	N 12° W	4·4	4·0	2·7	−48	93	·988	8·2	14	17·78	−3·78	11·52	16·19	−4·67	40·86	46·98	− 6·12	2·29	Sibsagar .	Brahmaputra.	9
2	8	11	5	2	1	1		N 86° E	5·0	5·9	3·2	+84	88	·976	7·2	11	14·47	−3·47	3·57	13·76	−10·19	45·98	54·46	− 8·48	0·83	Dhubri.		
																			12·15	13·89	−1·74					IV.—Bengal and Orissa.		
1	4	3	15	6		2		S 47° E	7·8	7·7	6·1	+26	87	·941	7·8	17	18·42	−1·42	9·28	19·76	−10·48	55·59	65·65	−10·06	2·36	Chittagong .	East Bengal.	6
	3	10	12	3	3			S 58° E	6·5	6·0			88	·972	7·1	22	23·04	−1·04	21·75	24·99	−3·24	83·41	72·92	+10·49	4·35	Noakhali.		
		8	14	7			1	S 47° E	7·4				84	·932	7·5	19	17·67	+1·33	9·50	16·40	−6·90	53·85	50·43	+ 3·42	2·43	Comilla.		
	4	11	6	2	1			S 77° E	2·2	2·3			90	·935	8·4	11	13·85	−2·85	4·29	10·93	−6·64	34·22	33·55	+ 0·67	1·04	Sirajganj.		
1	1	8	15	3	2			S 54° E	9·4		6·0	+57	89	1·004	7·9	19	17·38	+1·62	12·00	12·32	−0·32	33·46	39·16	− 5·70	1·81	Narayanganj.		
1	4	3	8	9	3		1	S 37° E	3·9				89	1·014	6·9	21	18·77	+2·23	15·83	12·53	+3·30	55·73	44·31	+11·42	2·71	Barisal.		
	1	7	10	1	1			S 60° E	1·5	1·5			88	·997	7·1	16	19·19	−3·19	8·19	14·46	−6·27	68·86	48·20	+20·66	1·32	Mymensingh.		
1		1	11	9				S 29° E	2·9	3·5			90	1·018	8·6	21	15·96	+5·04	11·50	12·23	−0·73	36·90	36·82	+ 0·08	2·98	Faridpur .	Deltaic Bengal.	10
		5	6	6		1		S 39° E	2·9	2·9	4·1	−29	91	1·018	8·3	15	17·12	−2·12	9·60	11·35	−1·75	35·37	35·06	+ 0·31	1·22	Jessore.		
3	2	7	4	6	2	2	3	S 56° E	5·2		5·3	− 2	90	1·002	8·6	25	18·12	+6·88	16·28	12·95	+3·33	35·11	36·15	− 1·04	2·27	Calcutta.		
2	4	3	2	3	8	5	4	S 72° W	15·3		12·4	+23	90	1·014	8·2	18	16·81	+1·19	15·74	15·22	+0·52	46·67	40·40	+ 6·27	5·19	Saugor Island		
1	1	10	7	6		4	2	S 51° E	5·2				88	·996	7·1	14	14·12	−0·12	9·70	10·54	−0·84	23·33	30·49	− 7·16	2·13	Krishnagar.		
5	5		4	5	1		1	N 79° E	3·1	4·0			87	·968	5·6	17	15·85	+1·15	13·5	12·23	+0·42	34·32	33·38	+ 0·94	4·25	Midnapore.		

† Mean of 28 days.

§ Wind variable 11.

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Abstract of Observations taken at 8 A.M. at 219 Stati

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	
11	Central Bengal.	Bankura	298	29·273		29·520	29·401	31st	29·149	1st	·252	81·7	89·5		78·6		84·3		10·9	95·6	16th	77·1	19th, 26th & 27th.	1
		Raniganj	334	29·265		29·546	29·360	31st	29·147	1st	·233	80·9	90·3		78·5		84·4		11·8	94·7	10th	75·9	26th	1
		Burdwan	99	29·511	—·043	29·557	29·624	31st	29·390	18th	·234	83·0	90·2	+1·0	79·7	+0·8	85·0	+0·9	10·5	94·4	10th & 26th.	77·8	3rd, 5th & 31st.	1
		Naya Dumka	489	29·122		29·566	29·223	31st	29·033	3rd	·190	82·1	88·5		77·4		83·0		11·1	92·5	10th	74·8	26th	1
		Berhampore	67	29·556	—·033	29·571	29·653	30th	29·461	17th	·192	82·8	90·0	+1·5	79·6	+1·1	84·8	+1·3	10·4	94·3	10th	77·3	26th & 31st.	1
		Rampur Boalia	70	29·526		29·545	29·627	30th	29·407	17th	·220	83·6	89·5		79·8		84·7		9·7	93·6	26th	77·6	26th	1
		Malda	72	?		?	?		?		?	83·3	90·5		80·2		85·4		10·3	95·6	10th & 18 th.	78·0	5 days	1
		Bogra	61	29·576		29·589	29·672	31st	29·475	17th	·197	83·1	90·4	+2·5	79·7	+1·7	85·1	+2·1	10·7	95·2	17th & 18th.	76·2	3rd	1
12	North Bengal	Dinajpur	123	29·506	—·034	29·582	29·606	30th	29·413	17th	·193	82·7	90·9	+2·2	?	?	?	?	?	96·3	17th	?		1
		Rangpur	123	29·530		29·606	29·635	30th	29·430	17th	·205	84·2	90·9		?		?		?	97·7	17th	?		
		Jalpaiguri	284	29·388	—·004	29·628	29·483	30th	29·304	3rd	·179	81·9	91·3	+3·5	78·5	+2·4	84·9	+3·0	12·8	95·9	17th	76·1	22nd	19
		Cooch Behar	156	29·513		29·623	29·618	30th	29·421	3rd	·197	82·7	91·7		79·4		85·6		12·3	97·4	17th	77·1	11th, 29th & 30th	2
17	North Bihar	Purnea	125	29·517	—·006	29·595	29·616	30th	29·436	3rd	·180	83·0	90·8	+1·6	80·0	+2·1	85·4	+1·9	10·8	94·2	17th & 26th.	77·2	30th & 31st.	17
14	Orissa	Balasore	46	29·554	?	29·546	29·687	31st	29·263	18th	·424	82·4	88·0	+0·7	78·7	+0·9	83·4	+0·8	9·3	92·4	26th	75·7	19th & 27th.	16
		False Point	21	29·585	—·054	29·548	29·715	30th	29·326	18th	·389	82·2	86·9	—0·1	78·9	+0·7	82·9	+0·3	8·0	92·0	25th & 26th.	75·1	18th	16
		Cuttack	80	29·529	—·050	29·551	29·655	22nd	29·332	18th	·323	81·4	88·8	—0·5	78·6	+0·4	83·8	—0·1	10·2	93·4	25th26th & 29th.	76·2	5th & 6th.	17
		Puri	20	29·596		29·558	29·720	30th	29·430	11th	·290	82·8	87·3		79·9		83·6		7·4	93·7	24th	76·6	24th	17
	V.—Gangetic Plain and Chota Nagpur.				—·032	...	...	...	...	...	...	...	90·0	+1·1	78·6	+0·9	4·3	+1·1	11·4	...	...	...	...	19
15	Chota Nagpur	Hazaribagh	2,007	27·614	—·035	29·559	27·726	30th	27·411	19th	·315	76·2	84·2	+0·6	73·6	+0·7	79·0	+0·7	10·6	87·7	17th	71·8	2nd, 3rd & 21st.	15
		Ranchi	2,128	27·488	—·039	29·549	27·613	30th	27·228	19th	·385	75·5	83·2	+0·3	73·0	+1·0	78·1	+0·7	10·2	87·7	16th	70·9	2nd & 13th.	16
		Daltonganj	730?	28·844		29·526	28·974	23rd	28·660	19th	·314	79·8	90·2		76·0		83·1		14·2	93·1	10th & 15th	74·0	5th & 21st.	19
		Purulia		28·789		29·547	28·915	31st	28·681	1st	·234	81·0	89·1		77·9		83·6		11·2	94·0	16th	75·9	10th	18
		Chaibassa	760	28·826		29·531	28·949	30th	28·591	19th	·358	80·6	87·6	—1·0	77·0	+0·4	82·4	—0·3	10·6	92·6	18th	74·5	22nd	18
16	South Bihar	Gaya	375	29·221	—·033	29·549	29·338	30th	29·097	19th	·241	81·9	91·8	+1·7	78·4	—0·1	85·1	+0·8	13·4	97·2	16th	76·8	2nd, 27th & 31st.	20
		Dehri	351	29·234		29·538	29·351	30th	29·110	3rd	·241	82·7	90·4		79·2		84·8		11·2	95·3	16th	74·0	13th	21
		Patna	183	29·427	—·026	29·561	29·540	30th	29·324	3rd	·216	83·0	90·0	+0·7	79·7	+0·2	84·9	+0·5	10·3	95·0	18th	76·2	24th & 27th.	18
		Arrah	190	29·402		29·542	29·502	30th	29·282	3rd	·220	83·1	90·5		80·0		85·3		10·5	95·5	18th	77·5	31st	18
		Buxar	239	29·352		29·545	29·454	31st	29·223	3rd	·231	83·0	90·3		79·2		84·8		11·1	95·0	10th	77·1	18th	17
17	North Bihar	Bhagalpur	160	29·459		29·571	29·586	30th	29·361	3rd	·225	83·1	90·4		78·9		84·7		11·5	93·7	18th	75·6	26th & 31st,	18
		Darbhanga	166	29·456	—·026	29·574	29·560	30th.	29·356	3rd	·204	83·4	90·0	+1·6	80·7	+1·6	85·4	+1·6	9·3	95·8	17th	77·5	24th & 25th.	18
		Muzaffarpur	178	29·444		29·574	29·558	30th	29·334	3rd	·224	83·5	90·3		79·8		85·1		10·5	95·7	18th	76·2	24th & 27th.	19
		Motihari	224	29·398		29·578	29·504	30th	29·283	3rd	·221	82·6	90·6		79·0		84·9		11·6	96·0	18th	75·9	24th	20
		Chapra	181	29·425		29·559	29·524	30th	29·313	3rd	·211	83·2	91·0		79·8		85·4		11·2	96·3	11th	75·1	24th	21
18	N.-W. P., East	Benares	267	29·310	—·041	29·530	29·429	23rd	29·168	3rd	·261	82·5	90·8	+1·1	79·9	+1·1	85·4	+1·1	10·9	98·8	15th	78·0	21st & 25th,	20
		Allahabad	309	29·261	—·049	29·523	29·394	23rd	29·119	3rd	·275	83·1	90·5	+0·7	79·5	+1·0	85·0	+0·9	11·0	97·1	11th	76·8	25th & 29th	20
23	N.-W. P. (East Submontane).	Gorakhpur	256	29·360	—·005	29·572	29·449	31st	29·237	3rd	·212	83·7	91·6	+1·5	79·8	+0·9	85·7	+1·2	11·8	99·6	18th	76·8	25th.	22
19	South Oudh	Lucknow	368	29·206	—·043	29·530	29·309	31st	29·089	3rd	·220	82·8	91·5	+0·9	79·6	+1·1	85·6	+1·0	11·9	98·3	11th	76·3	22nd & 25th.	22
20	North Oudh	Bahraich	403	29·195	—·010	29·555	29·304	31st	29·079	3rd	·225	84·1	92·2	+2·9	80·0	+2·1	86·1	+2·5	12·2	97·6	6th	77·0	18th24th & 25th.	20
21	N.-W. Provinces (Central).	Cawnpore	416	29·154	—·041	29·521	29·257	31st	29·040	3rd	·217	82·0	91·1	+1·5	79·3	+1·1	85·2	+1·3	11·8	96·3	11th	75·5	22nd	20
		Mainpuri	516	29·051	—·030	29·521	29·159	31st	28·944	3rd	·215	82·9	92·6	+2·4	79·3	+1·1	86·0	+1·8	13·3	101·3	11th	74·5	22nd	26

—continued.

India, Burma, etc., in August, 1900—continued.

Wind Direction. Number of winds from N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st August 1900.	Normal rainfall for period, 1st June to 31st August.	Variation from normal of period, 1st June to 31st August.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
1	2	6	3	1	1	3		S 81° E	3·5	4·1			85	·918	7·3	17	16·77	+ 0·23	10·72	12·89	− 2·17	21·40	35·53	−14·13	3·12	Bankura	Central Bengal	11
1	1	8	5		3	1		S 66° E	2·4				90	·957	6·9	16	16·23	− 0·23	9·71	13·23	− 3·52	20·22	35·72	−15·50	2·15	Raniganj.		
2	3	8	1	4	1	2	2	N 89° E	3·8	3·8	3·6	+6	88	·998	8·4	13	16·19	− 3·19	8·79	11·37	− 2·58	24·62	32·00	− 7·38	1·38	Burdwan.		
1	1	9	7	3	1	1	2	S 63° E	2·1	2·4			87	·955	8·7	18	18·20	− 0·20	10·73	13·63	− 2·90	33·45	36·56	− 3·11	2·06	Naya Dumka.		
1	1	11	1	6		1		S 66° E	3·1		4·2	−26	89	·999	8·2	15	16·35	− 1·35	9·62	11·77	− 2·15	33·29	31·86	+ 1·43	1·85	Berhampore.		
	2	8	5	4	2			S 56° E	3·7	3·8			87	1·002	7·9	17	15·19	+ 1·81	9·93	11·01	− 1·08	32·48	32·51	− 0·03	2·49	Rampur Boalia.		
	4	15	7	4		1		S 75° E	4·4	4·0			88	1·001	6·7	16	14·31	+ 1·69	8·28	10·35	− 2·07	32·42	32·64	− 0·22	1·24	Malda.		
													88	·990	5·5	14	16·08	− 2·08	8·39	11·97	− 3·58	48·45	39·02	+ 9·43	1·78	Bogra.		
1	9	12	4	3	2			N 89° E	5·2	6·0			88	·989	8·4	13	15·96	− 2·96	14·83	12·56	+ 2·32	61·29	42·43	+18·86	7·07	Dinajpur	North Bengal.	12
	7	12	7	4		1		S 79° E	?				87	1·027	5·9	9	13·50	− 4·50	5·12	12·41	− 7·29	52·70	47·33	+ 5·37	1·25	Rangpur.		
3	9	7	2	3		1	1	N 65° E	0·9	1·1			94	1·014	3·2	16	19·04	− 3·04	13·03	25·74	−12·71	70·09	81·40	−11·31	2·45	Jalpaiguri.		
	4	11	5	1				S 83° E	1·8	1·9			87	·974	6·8	8			5·58	21·51	−15·93	52·75	80·12	−27·37	1·46	Cooch Behar		
12	13		2					N 29° E	2·8	4·3	2·3	+ 87	90	1·020	7·3	10	17·16	− 7·16	5·68	13·90	− 8·22	49·99	39·73	+10·26	1·41	Purnea	North Bihar.	17
1	3	2		5	8	2	1	S 30° W	4·0				86	·960	6·5	18	16·00	+ 2·00	19·75	11·99	+ 7·76	39·81	34·10	+ 5·71	5·21	Balasore	Orissa.	18
2		1		1	9	13	3	S 82° W	10·6	10·2	9·5	+7	88	·965	8·8	17	16·00	+ 1·00	22·60	13·56	+ 9·04	45·19	36·34	+ 8·85	3·44	False Point.		
	1	1			11	8	1	S 68° W	2·9		2·6	+12	85	·908	7·9	17	16·15	+ 0·85	21·70	12·37	+ 9·33	33·88	36·81	− 2·93	3·67	Cuttack.		
1	1				13	7	1	S 66° W	12·3	12·2			85	·959	7·1	18			23·49	10·38	+13·11	37·70	28·24	+ 9·46	5·37	Puri.		
																			9·55	11·57	−2·12					V.—Gangetic Plain and Chota Nagpur.		
1	2	8	2	7	3	5	2	S 16° E	10·0	8·9	7·5	+19	86	·778	9·8	18	17·69	+ 0·31	15·72	13·11	+ 2·61	29·74	34·90	− 5·16	3·82	Hazaribagh.	Chota Nagpur.	15
1	2	6	2	5	4	3	7	S 45° W	8·3	9·8			91	·801	8·7	19	17·69	+ 1·31	15·40	13·84	+ 1·56	32·28	36·62	− 4·34	2·24	Ranchi.		
1	2	3	4		2		1	S 79° E	4·8	5·8			87	·860	4·7	21	15·77	+ 5·23	11·81	12·36	− 0·55	23·93	31·31	− 7·38	1·55	Daltonganj.		
1	3	2	7		1	3	4	N 72° E	2·2				84	·826	5·0	15			11·41			20·86			4·51	Purulia.		
	2	2	1	1	3	5	2	S 76° W	1·8	1·6			87	·914	4·9	20	16·73	+ 3·27	16·54	13·04	+ 3·50	30·13	35·05	− 4·92	3·23	Chaibassa.		
1	8	4	7	3	4	1		S 70° E	7·7	7·0	2·6	+169	86	·933	6·9	16	14·04	+ 1·96	8·04	12·50	− 4·46	20·49	32·16	−11·67	1·35	Gaya	South Bihar.	16
1	1	9	6	4	5	3	2	S 34° E	7·8	9·0			84	·932	7·0	16	14·08	+ 1·92	9·40	12·62	− 3·22	19·52	30·26	−10·74	1·55	Dehri.		
	8	11	3	2	2	2	2	N 82° E	6·1	7·2	3·2	+125	88	·992	7·7	15	13·27	+ 1·73	10·82	11·30	− 0·48	33·41	30·39	+ 3·02	2·78	Patna.		
2	1	7	7	4	1	5	2	S 45° E	2·8	2·9			87	·978	5·2	14	13·31	+ 0·69	8·29	11·51	− 3·22	28·32	29·76	− 1·44	1·50	Arrah.		
		18	4	3		4	2	S 75° E	5·5	5·0			84	·952	7·0	11	13·38	− 2·38	5·55	11·33	− 5·78	20·03	28·21	− 8·18	1·10	Buxar.		
1	5	9	10	1	2	2		S 73° E	4·9	4·5			86	·975	8·3	11	13·62	− 2·62	13·09	10·80	+ 2·29	48·78	31·07	+17·71	2·49	Bhagalpur	North Bihar.	17
		10	8	2	1		1	S 60° E	3·6		4·4	−18	87	1·002	6·3	11	14·20	− 3·20	3·89	12·47	− 8·58	28·26	32·42	− 4·16	0·77	Darbhanga.		
	3	10	6					S 83° E	4·7	4·1			89	1·018	4·2	8	13·31	− 5·31	3·62	10·28	− 6·66	27·17	30·39	− 3·22	1·01	Muzaffarpur		
	6	17	2		3	1	2	N 84° E	5·8				93	1·029	3·2	11	13·25	− 2·25	6·74	12·19	− 5·45	27·65	34·76	− 7·11	3·95	Motihari.		
	1	14	5	1	2	3	1	S 68° E	3·7	4·5			86	·972	7·2	10	12·65	− 2·65	6·55	10·37	− 3·82	24·20	28·71	− 4·51	1·82	Chapra.		
	3	10	8	2	3	1		S 63° E	3·6	4·1	4·2	−2	85	·941	7·7	16	14·27	+ 1·73	5·55	11·83	− 6·28	17·03	27·70	−10·67	0·97	Benares	N.-W. P., East.	18
	5	14	1	2	3	5	1	S 87° E	8·2	9·3	5·6	+66	85	·952	8·3	13	13·91	− 0·91	12·31	11·10	+ 1·21	21·69	29·12	− 7·43	2·42	Allahabad.		
4 11	5	1	1		3	1		N 42° E	2·8		2·3	+22	86	·976	6·4	11	13·55	− 2·55	6·25	11·93	− 5·68	16·68	35·28	−18·60	1·75	Gorakhpur	N.-W. P. (East Submontane).	23
1	16	7	1		4	1		S 75° E	4·5	4·9	3·0	+63	84	·944	8·0	8	12·36	− 4·36	8·73	11·78	− 3·05	19·25	28·46	− 9·21	3·33	Lucknow	South Oudh.	19
1	20	5	1	1		1		S 81° E	1·6	1·5			83	·969	3·6	8			3·84	9·50	− 5·66	19·77	27·63	− 7·86	0·85	Bahraich	North Oudh.	20
3	12	5	1	2	4			S 72° E	4·1				89	·969	6·6	10	11·70	− 1·70	15·06	9·37	+ 5·69	23·79	22·96	+0·83	7·44	Cawnpore	N.-W. Provinces (Central).	21
2	16	3	4		4	2		S 78° E	3·4	3·4			83	·948	7·0	12			11·42	9·84	+1·58	19·63	23·91	− 4·28	4·96	Mainpuri.		

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Abstract of Observations taken at 8 A.M. at 219 Stat

Number of district.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	VI.—Upper Sub-Himalayas				**—·012**								**91·9**	**—0·2**	**79·0**	**+1·5**	**85·5**	**+0·7**	**13·0**				
24	N.-W. Provinces, (West Submontane).	Bareilly	569	29·019	—·018	29·548	29·115	31st	28·921	3rd	·194	82·8	91·0	+1·0	79·3	+1·3	85·2	+1·2	11·7	95·4	11th	76·1	22nd
		Dehra Dun	2,233	27·417	—·017	29·582	27·503	31st	27·324	3rd	·179	76·3	84·6	+0·7	73·4	+0·2	79·0	+0·5	11·2	91·0	20th	69·5	14th
		Roorkee	887	28·714	—·014	29·562	28·820	31st	28·609	3rd	·211	81·3	90·4	—0·3	77·7	+0·7	84·1	+0·2	12·7	95·2	21st	74·1	30th
22	N.-W. P., West	Meerut	738	28·843	—·024	29·541	28·938	31st	28·742	3rd	·196	82·1	91·8	+1·2	79·1	+0·8	85·5	+1·0	12·7	95·6	6th & 7th.	75·3	17th
26	South-East Punjab.	Delhi	718	28·864	—·021	29·539	28·960	31st	28·762	3rd	·198	83·4	91·4	—0·2	80·3	+1·2	85·9	+0·5	11·1	97·7	6th	74·6	17th
28	Central Punjab.	Lahore	702	28·864	—·015	29·527	28·953	19th	28·778	3rd	·175	85·7	96·7	+0·7	81·1	+2·2	85·9	+1·5	15·6	105·1	31st	72·9	16th
27	South Punjab	Sirsa	662	28·909	—·017	29·526	29·015	31st	28·820	4th	·195	86·7	97·3	—0·2	81·9	+2·4	89·6	+1·1	15·4	102·8	25th, 28th & 31st	73·1	1st
		Patiala	818	28·771		29·550	28·837	28th	28·667	16th	·170	82·6	89·8		78·7		84·3		11·1	96·2	30th	72·0	17th
29	Punjab (Submontane).	Ludhiana	812	28·750	?	29·526	28·826	28th	28·662	24th	·164	82·1	90·5	—4·8	79·7	+1·0	85·1	—1·9	10·8	96·6	7th	73·1	17th
		Sialkot	830	28·748	—·009	29·540	28·835	12th	28·652	24th	·183	84·3	95·0	+1·0	80·1	+2·8	87·6	+1·9	14·9	103·2	31st	73·6	9th
		Umballa	892	28·703	+·015	29·557	28·790	31st	28·602	3rd	·188	80·8	89·8	—2·3	78·2	+0·4	84·0	—1·0	11·6	94·0	5 days	75·0	10th
31	North Punjab	Rawalpindi	1,676	27·928	+·003	29·550	28·015	19th	27·825	24th	·190	83·8	95·0	+1·5	78·2	+3·1	86·6	+2·3	16·8	105·0	31st	69·1	16th & 17th.
	VII.—Indus Valley and North-West Rajputana.				**—·017**								**99·8**	**+2·5**	**81·7**	**+2·3**	**90·8**	**+2·4**	**18·1**				
31	North Punjab	Peshawar	1,110	28·482	+·001	29·559	28·567	19th	28·362	24th	·205	84·9	100·0	+1·0	78·5	+0·7	89·3	+0·9	21·5	107·0	24th	71·9	10th
32	West Punjab	Khushab	612	28·949	+·006	29·523	29·032	19th	28·856	24th	·176	87·3	101·3	+1·6	82·7	+2·0	92·0	+1·8	18·6	109·4	24th	74·9	16th
		Montgomery	558	28·990	—·020	29·505	29·064	19th	28·898	3rd	·166	89·5	103·0	+1·6	84·0	+3·0	93·8	+2·3	19·0	109·0	24th	76·1	15th
		D. I. Khan	594	28·971	—·019	29·502	29·061	11th	28·860	24th	·201	87·2	102·8	+2·1	82·3	+1·0	92·6	+1·6	20·5	109·2	24th	73·1	16th
		Mooltan	420	29·115	—·025	29·497	29·195	19th	29·028	3rd	·167	87·9	103·0	+2·7	84·0	+2·0	93·5	+2·4	19·0	110·4	23rd	74·0	2nd
47	Sind	Jacobabad	186	29·337	—·024	29·480	29·433	31st	29·236	3rd	·197	89·1	107·0	+3·4	83·7	+2·4	95·4	+2·9	23·3	116·1	7th	78·6	19th
		Hyderabad	96	29·459	—·022	29·506	29·561	31st	29·349	3rd	·212	84·8	98·7	+3·4	80·2	+1·7	89·5	+2·6	18·5	110·2	3rd	75·0	3rd & 15th.
		Kurrachee	30	29·576	—·033	29·557	29·694	31st	29·440	3rd	·254	83·9	92·0	+2·8	81·1	+2·7	86·6	+2·8	10·9	95·9	13th	74·2	10th
51	West Rajputana	Bikaner	771	28·784	?	29·511	28·919	31st	28·674	3rd	·245	87·0	100·0	+3·7	83·3	+5·3	91·7	+4·5	16·7	105·1	21st	74·5	17th
		Pachpadra	380	29·215		29·548	29·346	31st	29·100	14th	·246	83·8	96·6		79·5		88·1		17·1	106·5	4th	73·0	25th
		Jodhpur	782	28·795		29·552	28·920	31st	28·648	3rd	·272	82·5	93·8		79·3		86·6		14·5	104·2	4th	73·8	29th
	VIII.—East Rajputana, Central India and Gujarat.				**—·046**								**87·0**	**—0·5**	**76·8**	**+1·3**	**81·9**	**+0·4**	**10·2**				
50	East Rajputana	Jaipur	1,431	28·177	—·036	29·557	28·293	31st	28·060	3rd	·233	81·0	90·7	+0·8	77·4	+2·4	84·1	+1·6	13·3	96·7	6th	72·1	17th
		Kotah	819	28·754			28·886	23rd	28·625	14th	·261	80·7	88·0*		78·2		83·0*		9·8	93·0	12th	74·1	30th
		Sambhar	1,254	28·342	—·029	29·549	28·449	18th & 31st.	28·198	16th	·251	81·3	91·2	?	78·6	+2·8	84·9	?	12·6	96·5	22nd	73·4	17th
		Ajmer	1,611	27·997	—·047	29·559	28·112	30th	27·868	3rd	·244	79·7	87·7	+0·2	77·0	+2·5	82·4	+1·4	10·7	93·9	3rd	73·6	17th
		Udaipur	1,925	27·713		29·586	27·837	31st	27·578	14th	·259	76·3	83·5		73·7		78·6		9·8	70·5	3rd	68·3	22nd
		Deesa	466	29·162	—·047	29·583	29·306	31st	28·996	3rd	·310	79·7	88·5	+0·2	77·4	+2·0	82·9	+1·1	11·1	94·6	3rd	74·0	16th
46	Kathiawar and Cutch.	Bhuj	395	29·239	—·027	29·586	29·368	18th	29·099	3rd	·269	80·6	88·5	0	77·0	+0·8	82·7	+0·4	11·5	94·3	13th	73·9	3rd & 15th.
		Jamnagar	61	29·584		29·591	29·709	31st	29·437	2nd	·272	80·7	86·3		76·6		81·5		9·7	90·5	26th	73·2	4th
		Rajkot	429	29·218	—·052	29·600	29·365	31st	29·065	2nd	·300	78·2	86·8	—1·9	75·1	+0·6	80·9	—0·7	11·7	92·9	20th	72·8	4 days
		Veraval		29·659	—·059	29·619	29·787	31st	29·507	2nd	·280	79·2	81·6	—0·9	77·7	+0·1	79·6	—0·4	3·9	84·1	20th & 21st.	74·3	3rd & 4th.
		Bhavnagar Para.	35	29·620	?	29·600	29·753	30th	29·446	2nd	·317	80·0	88·3	?	76·7	?	82·5	?	11·6	96·1	29th	74·8	4 days
49	Central India	Nowgong	757	28·817	—·059	29·528	28·954	23rd	28·694	3rd	·260	80·2	87·0	—1·3	78·0	+1·3	82·5	0	9·0	92·5	2nd	74·0	22nd
		Indore	1,823	27·841	—·038	29·615	27·984	23rd	27·696	13th	·288	74·3	81·6	—1·0	72·1	+0·9	76·9	—0·1	9·5	86·8	1st	69·1	21st & 22nd.
		Neemuch	1,630									75·9	83·3	—1·2	73·1	+0·8	78·2	—0·2	10·2	92·0	3rd	69·1	22nd

* Mean of 20 days.

I—*continued.*

in India, Burma, etc., in August 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, Sa.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st August 1900.	Normal rainfall for period from 1st June to 31st August	Variation from normal of period, 1st June to 31st August.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				11·19	11·15	−0·51					VI.—Upper Sub-Himalayas.		
8		3	15	2	1	2			S 85° E	2·0	1·9	3·6	−47	86	·942	6·4	11	12·18	−1·18	7·35	14·51	−7·16	24·92	36·36	−11·44	1·52	Bareilly	N.-W. Provinces (West Submontane).	24
20	1		6	4					S 78° E	0·9		1·1	−18	90	·813	8·7	23	21·30	+1·70	22·94	30·00	−7·06	51·10	68·50	−17·40	3·26	Dehra Dun.		
16			2	9	3			1	S 40° E	3·1		2·5	+24	83	·882	7·8	12	11·64	+0·36	14·12	13·59	+0·53	28·96	30·75	−1·79	4·94	Roorkee.		
12		1	7	10			1		S 65° E	1·3	1·3	2·1	−38	85	·932	7·6	8	11·36	−3·36	10·20	10·59	−0·39	24·01	22·57	+1·44	2·85	Meerut	N.-W. P., West.	22
2			13	6	5	1	2	2	S 57° E	5·5	5·1	4·1	+24	81	·927	7·2	13	9·82	+3·18	4·14	9·35	−5·21	10·21	21·92	−11·71	0·70	Delhi	South-East Punjab.	26
9	1	1	6	9	2		3		S 57° E	2·8		2·9	− 3	78	·969	3·3	5	6·45	−1·45	5·67	5·83	−0·16	12·03	14·34	− 2·31	2·42	Lahore	Central Punjab.	28
1		7		11	2	8	1	1	S 29° E	5·6	6·6	4·6	+43	81	1·133	1·2	4	5·55	−1·55	2·03	4·11	−2·08	2·64	10·60	− 7·96	0·93	Sirsa	South Punjab.	27
1	1	4	9	9	2	1	1	3	S 78° E	4·5				85	·952	7·0	8			17·22			24·36			5·33	Patiala.		
8	1	2		13	6		1		S 37° E	2·6	2·3	1·4	+64	86	·952	6·4	11	7·82	+3·18	26·86	6·94	+19·92	33·37	19·68	+13·69	6·72	Ludhiana	Punjab (Submontane).	29
7	3	6	12	2			1		N 70° E	3·2		2·3	+39	78	·919	3·7	6	9·27	−3·27	7·89	10·87	−2·98	16·39	22·47	− 6·08	2·12	Sialkot.		
8			7	14			1	1	S 18° W	2·3				91	·958	6·5	11			10·99	7·75	+3·24	23·05	22·44	+ 0·61	3·91	Umballa.		
20		4	3	3	1				S 88° E	1·7	1·6	1·6	0	75	·878	1·8	8	9·91	−1·91	4·93	9·16	−4·23	11·86	19·62	− 7·76	1·47	Rawalpindi.	North Punjab.	31
																				2·36	2·50	−0·14					VII.—Indus Valley and North-West Rajputana.		
15	5	2					1	8	N 23° W	2·0	2·2	4·0	−45	72	·859	3·5	4	1·82	+2·18	1·34	2·70	− 1·36	1·60	4·84	− 3·24	0·55	Peshawar	North Punjab.	31
4		14	11	1	1				N 69° E	8·2	9·5			72	·936	1·8	1	2·70	−1·70	1·35	2·01	− 0·66	3·07	5·57	− 2·50	1·35	Khushab	West Punjab.	32
	1	3	4	8	4	10	1		S 15° E	9·8	8·4			59	·814	2·3	1	3·20	−2·20	0·45	2·47	− 2·02	0·45	6·98	− 6·53	0·38	Montgomery.		
12	4	8		5	1			1	N 55° E	1·9	2·0	2·1	− 5	72	·923	1·9	3	2·27	+0·73	0·71	1·43	− 0·72	1·86	4·84	− 2·98	0·46	D. I. Khan.		
7	1	4	1	5	3	10			S 2° E	2·6	3·2	3·2	0	69	·902	1·8	4	2·00	+2·00	1·59	1·58	+ 0·01	1·72	5·11	− 3·39	0·89	Mooltan.		
7			7	12	2		1	2	S 55° E	3·4	3·5	4·0	−13	64	·878	1·3	2	1·64	+0·36	3·35	1·27	+ 2·08	3·35	2·67	+ 0·68	2·70	Jacobabad	Sind.	47
8					5	17	1		S 37° W	9·2	9·6	13·8	−30	70	·831	5·7	4	3·36	+0·64	3·67	2·51	+ 1·16	3·69	5·51	− 1·82	2·38	Hyderabad.		
1	1					9	16	4	S 84° W	11·8	14·8	17·2	−14	80	·924	6·6	3	2·36	+0·64	1·57	1·55	+ 0·02	1·67	5·54	− 3·87	1·18	Kurrachee.		
4		3	4	2	3	6	9		S 42° W	9·1		6·2	+47	73	·940	3·7	5			3·94	3·12	+ 0·82	5·16	8·45	− 3·29	1·64	Bikaner	West Rajputana	51
2			1		5	15	7	1	S 49° W	9·7	11·1	9·7	+13	80	·921	6·9	7			2·45	3·78	−1·33	3·20	7·11	− 3·91	0·71	Pachpadra.		
	1	1	1	1	2	12	12	1	S 65° W	6·3	5·7			79	·871	7·3	8			5·59	5·13	+ 0·46	8·27	10·75	− 2·48	3·08	Jodhpur.		
																				15·80	7·90	+7·54					VIII.—East Rajputana, Central India and Gujarat.		
1	1	11	3	1		3	7	4	N 3° W	4·5		5·5	−18	83	·873	7·8	11	11·50	−0·50	5·79	10·07	− 4·28	15·66	21·93	− 6·27	1·49	Jaipur	East Rajputana.	50
3	3	1	2			7	8	7	N 76° W	5·4	6·4			83	·875	7·3	17			18·25	8·92	+ 9·33	29·43	22·34	+ 7·09	4·37	Kotah.		
4	4	2	7		1		10	3	N 30° W	6·4		8·1	−21	82	·868	8·2	13	10·50	+2·50	8·25	7·88	+ 0·37	12·71	17·11	− 4·40	1·53	Sambhar.		
3	1	6		1		4	13	3	N 74° W	6·5		5·5	+18	87	·883	7·3	12	9·82	+2·18	12·12	7·63	+ 4·49	16·10	17·20	− 1·10	2·58	Ajmer.		
8		1		2	1	5	11	3	S 78° W	1·6	1·6			85	·784	8·4	17			18·41			24·46			3·82	Udaipur.		
		1		2	1	9	16	2	S 73° W	10·2		12·0	−15	88	·882	8·9	14	10·09	+3·91	19·93	7·60	+12·33	23·89	20·75	+ 3·14	4·52	Deesa.		
	1				4	7	15	4	S 78° W	10·7		14·9	−28	89	·912	7·4	8			12·70	2·70	+10·00	15·54	11·58	+ 3·96	4·45	Bhuj	Kathiawar and Cutch.	46
				1	10	14	5	1	S 37° W	13·8	15·9			87	·915	6·5	12			18·83			21·24			5·20	Jamnagar.		
					2	11	16	2	S 71° W	12·9	12·8	11·6	+10	93	·834	6·8	14	7·82	+6·18	31·93	4·98	+26·95	37·41	23·17	+14·24	9·18	Rajkot.		
						11	18	2	S 76° W	13·0	15·3			92	·913	8·8	14			27·40	1·83	+25·57	33·56	17·11	+16·45	7·69	Veraval.		
	1			1	9	8	5	7	S 57° W	6·5†	6·7†			85	·868	8·7	16			17·87	5·28	+12·59	23·87	16·06	+ 7·81	2·40	Bhavnagar Para.		
3		3	7	1	4	3	9	1	S 27° W	2·2	2·2	3·4	−35	90	·933	8·9	17	14·09	+2·91	13·10	14·23	− 1·13	19·10	34·47	−15·37	2·42	Nowgong.	Central India.	49
12						4	14	1	S 83° W	3·4		6·1	−44	92	·787	10·0	17	10·45	+6·55	13·98	7·83	+ 6·15	25·49	23·13	+ 2·36	4·10	Indore.		
1		4	1	1		12	10	2	S 73° W	10·5	9·5	11·9	−20	93	·838	9·1	17	11·00	+6·00	14·62	10·55	+ 4·07	21·57	24·71	− 0·14	2·35	Neemuch.		

† Mean of 17 days.

Tab

Abstract of Observations taken at 8 A.M. at 219 Static

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute
45	Gujarat	Surat	39	29·646	−·052	29·628	29·790	31st	29·471	2nd	·319	79·6	85·1	−1·8	76·5	+0·3	80·8	−0·8	8·6	88·1	29th & 31st.	73·5	9th	1
		Ahmedabad*	164	29·502	?	29·613	29·656	30th	29·323	3rd	·333	80·3	87·7	−1·0	77·7	+0·9	82·7	−0·1	10·0	92·2	3rd	75·1	4th, 15th & 16th.	1
22	N.-W. P., West	Agra	555	29·014	−·044	29·524	29·122	31st	28·903	3rd	·219	84·4	92·9	+2·5	80·6	+2·0	86·8	+2·3	12·3	98·5	6th & 20th.	75·9	22nd	2
21	N.-W.P., Central	Jhansi	858	28·716	−·058	29·526	28·809	31st	28·603	3rd	·206	80·0	87·2	−1·3	78·4	+1·7	82·8	+0·2	8·8	93·2	11th	74·1	20th & 22nd.	1
	IX.—Deccan				−·033								85·3	−0·2	72·3	+0·8	78·9	+0·3	13·0					2
38	Bombay (Deccan)	Belgaum	2,539	27·274	−·009	29·752	27·365	23rd	27·168	9th	·197	70·3	75·4	−0·7	67·2	+1·0	71·4	+0·2	8·2	79·3	31st	64·8	1st	1
		Sholapur	1,590	28·175	−·020	29·714	28·288	23rd	28·065	3rd	·223	77·0	89·5	+1·1	71·7	+1·3	80·6	+1·2	17·8	96·2	31st	69·0	6 days	2
		Poona	1,840	27·914	−·030	29·703	28·025	23rd	27·786	3rd	·239	74·1	80·6	−1·1	70·2	+0·7	75·5	−0·2	10·4	86·0	28th & 31st.	68·9	4 days	1
		Bijapur	1,946	27·846	−·006	29·738	27·946	23rd	27·741	8th	·205	74·3	86·5	+1·0	69·9	0	78·2	+0·5	16·6	92·2	29th	66·8	21st & 23rd.	2
40	Khandesh	Malegaon	1,430	28·256	−·050	29·638	28·394	31st	28·111	3rd	·283	77·2	86·1	0	72·9	+1·5	79·5	+0·8	13·2	93·4	28th	68·7	23rd	2
		Ahmednagar	2,152	27·611	−·023	29·701	27·724	23rd	27·495	3rd	·229	74·6	83·4	−0·7	69·3	+0·3	76·4	−0·2	14·1	89·9	29th	64·0	23rd	2
41	Berar	Akola	930	28·755	−·030	29·637	28·898	23rd	28·596	13th	·302	77·7	86·8	−0·3	73·5	+0·3	80·2	0	13·3	91·9	28th, 30th & 31st.	69·3	22nd	2
		Amraoti	1,215	28·462	−·023	29·633	28·605	23rd	28·276	13th	·329	76·4	85·5	−0·9	72·4	−0·1	79·0	−0·5	13·1	91·2	28th & 30th.	69·3	22nd	2
42	Central Provinces (West)	Khandwa	1,044	28·613	−·042	29·616	28·767	23rd	28·442	13th	·325	77·5	84·8	−0·9	74·7	+0·9	79·8	0	10·1	88·2	5th & 11th.	71·6	21st	1
		Hoshangabad	1,006	28·630	−·037	29·599	28·762	23rd & 31st.	28·441	13th	·321	76·8	84·6	−0·6	74·8	+1·0	79·7	+0·2	9·8	89·7	11th & 12th.	70·7	29th	1
		Nagpur	1,025	28·619	−·039	29·600	28·769	23rd	28·404	13th	·365	77·2	86·7	−0·6	75·0	+0·4	80·9	−0·1	11·7	92·1	27th	71·1	21st	2
43	Central Provinces (Central)	Chanda	634	29·057	−·039	29·636	29·193	23rd	28·897	13th	·296	79·3	87·6	−0·2	76·4	+1·3	82·1	+0·6	11·2	93·7	26th & 30th.	71·3	13th	2
		Seoni	2,033	27·618	−·036	29·588	27·760	23rd	27·417	13th	·343	74·8	82·2	−1·1	72·6	+0·9	77·4	−0·1	9·6	87·3	1st	70·0	21st & 22nd.	1
		Jubbulpore	1,327	28·258	?	29·540	28·421	23rd	28·078	20th	·343	76·7	84·4	−0·4	74·4	+0·5	79·4	+0·1	10·0	88·9	10th & 16th.	71·6	14th & 29th.	1
		Saugor	1,807	27·807	−·052	29·560	27·962	23rd	27·669	13th	·293	75·9	82·4	−1·1	73·4	+0·9	77·9	−0·1	9·0	88·4	9th	68·1	30th	2
49	Central India	Sutna	1,040	28·531	−·056	29·528	28·669	23rd	28·350	20th	·319	79·1	86·1	+0·4	76·9	+1·2	81·6	+0·8	9·2	91·4	11th	74·6	21st & 22nd.	1
44	Central Provinces (East)	Raipur	970	28·657	−·035	29·577	28·807	23rd	28·432	12th	·375	78·2	85·7	−0·5	74·4	−0·4	80·1	−0·5	11·3	90·3	24th & 25th.	72·1	2nd.	1
		Sambalpur	486	29·126	−·061	29·560	29·264	23rd	28·932	19th	·332	79·8	87·0	−0·5	77·8	+0·5	82·4	0	9·2	91·6	30th	74·7	13th	1
39	Hyderabad (North)	Indur										76·9	86·2		73·5		79·9		12·7	90·8	22nd & 31st.	71·1	18th	1
		Bidar	2,165	27·628		29·733	27·641	10th	27·606	8th	·035	74·0	84·2		52·6		68·4		31·6	90·8	31st	48·6	15th	4
53	Hyderabad (South)	Gulbarga	1,562	28·286		29·743	28·393	23rd	28·186	8th	·207	75·6	88·2		71·6		79·9		16·6	94·3	30th & 31st.	68·7	19th	2
		Raichur	1,309	28·482	?	29·739	28·536	23rd	28·383	9th	·203	78·6	90·2	+2·4	73·0	+0·9	81·6	+1·7	17·2	97·1	26th	70·6	20th, 21st & 31st.	2
		Hyderabad (Deccan)	1,690	28·061	−·007	29·699	28·177	23rd	27·956	8th	·221	75·7	85·5	−0·6	72·8	+2·1	79·2	+0·8	12·7	90·4	23rd, 25th & 30th.	70·2	21st	2
		Secunderabad	1,787	27·972	?	29·706	28·084	23rd	27·868	8th	·216	75·1	86·9	+0·8	72·1	+1·4	79·5	+1·1	14·8	93·1	30th	69·5	1st	2
		Hanumkonda		28·845		29·656	28·960	23rd	28·744	13th	·216	79·2	87·2		75·0		81·1		12·2	92·5	30th	60·7	1st	3
	X.—West Coast				−·003								83·8	+1·1	76·0	+1·3	79·9	+1·2	7·7					12
37	Konkan	Bombay	37	29·719	−·033	29·696	29·842	31st	29·584	2nd	·258	80·3	83·8	−0·1	77·5	+0·8	80·7	+0·4	6·3	86·0	19th 23rd & 28th.	75·0	1st	1
		Ratnagiri	110	29·689	−·012	29·738	29·804	31st	29·571	9th	·233	79·5	84·0	+0·6	76·3	+1·5	80·2	+1·1	7·7	85·9	28th 29th & 30th.	73·4	1st	1
		Mormugao	60	29·790	−·007	29·785	29·876	23rd	29·684	9th	·192	79·8	84·0	+0·9	76·6	+0·8	80·3	+0·9	7·4	86·5	23rd & 24th.	75·4	8 days	1
		Goa	199	29·631	−·002	29·767	29·715	31st	29·533	9th	·182	79·6	82·7	+0·8	76·5	+0·8	79·6	+0·8	6·2	84·5	22nd	74·0	27th	1
		Karwar	44	29·819	+·007	29·795	29·895	17th	29·720	9th	·175	78·6	83·0	+0·9	75·6	+1·5	79·3	+1·2	7·4	84·7	23rd	73·5	10th & 27th.	1
33	Malabar	Cochin	11	29·920	+·014	29·858	29·977	16th	29·845	8th	·132	79·2	85·8	+2·6	75·7	+1·6	80·8	+2·1	10·1	88·0	27th	73·7	10th, 21st & 30th.	1
		Calicut	27	29·886	+·008	29·842	29·945	23rd	29·807	8th	·138	78·6	84·1	+1·4	75·3	+1·6	79·7	+1·5	8·8	87·3	29th	73·0	3rd & 14th.	1
		Mangalore	65	29·834	+·004	29·831	29·898	17th	29·754	9th	·144	78·7	84·3	+1·9	75·2	+1·4	79·7	+1·7	9·1	87·3	2nd	73·4	10th, 11th & 25th.	1
		Trivandrum	198	29·710	?	29·839	29·770	14th	29·627	26th	·143	78·7	82·4	+0·2	75·7	?	79·1	?	6·7	84·0	27th & 28th.	74·0	6 days	1

* Mean of 30 days.

I—*continued.*

in India, Burma, etc., in August, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st August 1900.	Normal rainfall for period, 1st June to 31st August.	Variation from normal of period, 1st June to 31st August.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
				1	3	21	3	3	S 49° W	3·6	5·9	13·6	− 57	89	·901	9·3	22	12·82	+9·18	17·84	7·89	+9·95	31·32	36·29	− 4·97	6·30	Surat	Gujarat.	45
1	2				1	17		9	S 80° W	3·0				88	·904	8·3	13			8·06	8·89	−0·83	12·66	30·94	−18·28	2·03	Ahmedabad		
		9		16		3		3	S 70° E	5·1	6·0	4·4	+ 36	81	·951	7·1	11	10·73	+0·27	5·85	7·67	−1·82	11·51	21·71	−10·20	1·39	Agra	N.-W. P., West	22
3	2	2	9	1	3	2	7	2	S 75° E	4·2		3·9	+ 8	89	·910	5·4	16	14·45	+1·55	19·41	12·50	+6·91	27·45	29·99	− 2·54	3·22	Jhansi	N.-W.P., Central.	21
																				10·78	9·23	+1·73					IX.—Deccan.		
						8	19	4	S 84° W	23·3‡		20·7	+ 13	93	·688	8·5	21	17·64	+ 3·36	23·52	8·74	+14·78	56·64	30·70	+25·94	3·10	Belgaum	Bombay (Deccan).	38
						22	8	1	S 59° W	17·4	12·5	11·0	+ 14	71	·661	6·9	3	11·27	− 8·27	1·38	7·39	− 6·01	11·79	16·69	− 4·90	0·92	Sholapur.		
						11	18	2	S 76° W	17·4	19·7	14·0	+ 41	84	·711	7·9	16	7·82	+ 8·18	9·23	3·22	+ 6·11	22·31	14·82	+ 7·49	1·72	Poona.		
						14	16	1	S 71° W	11·8	11·6			80	·680	6·3	2	7·00	− 5·00	0·70	1·91	− 1·21	8·91	6·11	+ 2·80	0·32	Bijapur.		
						12	19		S 73° W	12·5	14·4	10·0	+ 44	78	·717	5·0	6	6·91	− 0·91	3·23	4·07	− 0·84	9·20	13·54	− 4·34	1·27	Malegaon	Khandesh.	40
						10	20	1	S 77° W	13·9	17·0			81	·696	5·5	3			2·96	2·45	+ 0·51	14·81	10·70	+ 4·11	2·15	Ahmednagar.		
						14	14	3	S 74° W	9·7	10·5	7·9	+ 33	82	·772	7·4	13	9·73	+ 3·27	19·49	7·44	+12·05	32·37	23·72	+ 8·65	8·84	Akola	Berar.	41
					3	13	13	2	S 65° W	13·7	11·2	6·1	+ 84	87	·795	8·0	12	9·73	+ 2·27	10·67	6·80	+ 3·87	20·02	24·26	− 4·24	3·78	Amraoti.		
1						5	20	5	W	10·6		7·6	+ 39	85	·793	7·2	12	9·91	+ 2·09	11·20	7·14	+ 4·06	24·57	22·01	+ 2·56	3·27	Khandwa	Central Provinces (West).	42
		1				28		2	S 49° W	6·9	7·0	3·4	+106	77	·716	8·8	16	15·09	+ 0·91	17·08	14·52	+ 2·56	36·87	40·31	− 3·44	2·75	Hoshangabad.		
4					1	10	13	3	S 75° W	11·8		8·0	+ 48	87	·812	8·1	13	12·82	+ 0·18	20·64	10·25	+10·39	37·65	33·72	+ 3·93	7·83	Nagpur.		
4		1			2	9	15		S 70° W	4·7		5·4	− 13	82	·821	8·1	13			18·77	13·87	+ 4·90	40·98	40·60	+ 0·38	6·24	Chanda	Central Provinces (Central)	43
	2	2		1	2	7	10	7	N 88° W	5·7		4·8	+ 19	90	·775	7·9	18	17·73	+ 0·27	10·87	12·90	− 2·03	26·10	41·62	−15·52	2·45	Seoni.		
	1	1	1	4	3	7	11	3	S 63° W	5·1		4·6	+ 11	92	·843	9·0	25	16·00	+ 9·00	24·76	16·12	+ 8·64	39·74	46·02	− 6·28	6·40	Jubbulpore.		
		2	2		3	7	16	1	S 72° W	4·1	4·6	4·3	+ 7	89	·807	7·9	21	14·55	+ 6·45	19·28	13·53	+ 5·75	34·74	36·03	− 1·29	3·87	Saugor.		
	4	2	4	1	5	12	1	2	S 33° W	6·2	6·6	7·9	− 16	89	·883	7·6	14	13·45	+ 0·55	8·95	12·07	− 3·12	26·39	33·78	− 7·39	2·25	Sutna	Central India	49
		1				22	7		S 56° W	11·5	10·6	7·3	+ 45	87	·836	7·0	17	14·45	+ 2·55	10·31	12·66	− 2·35	30·95	38·05	− 7·10	2·38	Raipur	Central Provinces (East).	44
	1		1	2	5	13	7	2	S 49° W	5·7	5·6	3·0	+ 87	84	·855	9·4	22			22·98	17·09	+ 5·89	48·54	50·38	− 1·84	3·95	Sambalpur.		
1						19	4	7	S 68° W	14·3	13·7			84	·782	6·3	13			9·57	10·19	− 0·62	30·80	25·43	+ 5·37	1·80	Indur.	Hyderabad (North).	39
	1					8	21	1	S 82° W					87	·732	3·6	8			4·93	9·85	− 4·92	22·35	25·44	− 3·09	2·00	Bidar.		
	1				1	5	20	4	S 88° W	15·8	15·2			82	·723	7·5	5			2·96	6·43	− 3·47	18·57	16·14	+ 2·43	0·85	Gulbarga	Hyderabad (South).	53
						19	11	1	S 63° W	19·2	18·8			73	·721	5·5	4			1·83	6·56	− 4·73	15·56	14·91	+ 0·65	0·57	Raichur.		
1							22	8	N 78° W	10·4	10·1*			78	·697	7·2	8			3·56	8·17	− 4·61	19·85	19·92	− 0·07	1·32	Hyderabad (Deccan).		
						8	16	7	S 89° W	13·7		10·0	+ 37	78	·683	6·5	7			4·11	8·17	− 4·06	16·74	19·92	− 3·18	1·73	Secunderabad.		
	1	7	14	9					S 89° E	11·1	9·4			75	·753	6·1	8			6·52			23·92			2·38	Hanumkonda.		
																	24			17·31	17·49	−0·18					X.—West Coast.		
						13	18		S 72° W	16·8		15·8	+ 6	88	·920	9·0		19·64	+ 4·36	23·77	11·43	+12·34	61·16	57·97	+ 3·19	7·52	Bombay	Konkan.	37
1				1		13	13	3	S 72° W	9·0	8·9	10·3	− 14	90	·911	8·8	26	24·36	+ 1·64	19·57	24·65	− 5·08	83·88	91·42	− 7·54	4·16	Ratnagiri.		
3			1		1	2	17	6	N 85° W	10·6†				90	·917	8·5	27			15·86	21·41	− 5·55	86·83	74·71	+12·12	2·10	Mormugao.		
1		1	2		1	5	17	4	S 87° W					88	·893	9·4	24			16·89	20·32	− 3·43	82·08	84·11	− 2·03	3·13	Goa.		
2						5	19	5	W	8·3				88	·851	8·1	30	23·36	+ 6·64	21·91	24·45	− 2·54	127·31	100·66	+26·65	2·69	Karwar.		
2	7	3				2	10	7	N 48° W	8·5†				79	·884	7·4	19	17·91	+ 1·09	10·85	13·31	− 2·46	57·17	63·23	− 6·06	1·17	Cochin	Malabar.	38
1	1	2	2	2	1	6	9	7	N 87° W	9·7	12·2			90	·870	8·3	21	17·88	+ 3·12	19·62	15·82	+ 3·80	88·75	78·39	+10·36	5·35	Calicut.		
10				1		2	11	7	N 80° W	3·2		2·9	+10	90	·891	9·3	30	23·90	+ 6·10	23·15	21·13	+ 2·02	117·15	92·25	+24·90	3·40	Mangalore.		
9	12							17	N 27° W	8·5				85	·847	7·4	13			4·20	4·91	− 0·71	21·40	24·94	− 3·54	0·72	Trivandrum.		

‡ Mean of 17 days.

† Mean of 30 days.

Tabl

Abstract of Observations taken at 8 A.M. at 219 Station

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	XI.—South India				−·005								91·6	+1·5	75·6	+1·3	83·6	+1·4	16·0					24·7
57	Madras (South)	Pamban	37	29·823		29·787	29·855	17th	29·744	10th	·111	83·7	90·6		75·7		83·7		13·9	91·8	4 days	76·2	11 days	15·6
		Tinnevelly	168	29·703	+·017	29·800	29·756	14th	29·624	26th	·132	86·5	97·4	+0·9	79·7	+0·7	88·6	+0·8	17·7	102·4	29th	76·9	2nd, 3rd 22nd.	25·5
		Madura	447	29·398	+·002	29·779	29·464	15th	29·305	8th	·159	84·7	98·2	+1·7	76·5	+1·0	87·4	+1·4	21·7	102·0	20th	71·0	15th	31·0
		Periya Kulam		28·914			28·977	23rd	28·813	8th	·164	80·7	94·3		72·3		83·3		22·0	98·6	28th	67·3	1st	31·3
34	Madras (South Central).	Salem	940	28·930	−·004	29·810	28·996	15th	28·831	8th	·165	79·9	93·3	+1·9	74·5	+2·7	83·9	+2·3	18·8	96·9	16th	72·0	1st, 22nd & 31st.	24·9
		Coimbatore	1,348	28·514	+·005	29·809	28·578	23rd	28·417	8th	·161	77·4	87·9	−0·6	72·3	+1·7	80·1	+0·6	15·6	91·4	26th	70·3	30th	21·1
35	Coorg	Mercara	3,781	26·170	−·009		26·230	23rd	26·091	9th	·139	65·0	69·5	−1·0	63·5	+1·4	66·6	+0·2	6·0	75·5	30th	62·2	2nd	13·3
36	Mysore	Chitaldroog	2,405	27·434	−·010	29·767	27·520	23rd	27·338	8th	·182	72·4	82·1	+0·7	68·8	+0·8	75·5	+0·8	13·3	87·1	30th	67·9	6 days	19·2
		Bangalore	3,021	26·876	−·005	29·799	26·947	23rd	26·784	8th	·163	70·6	82·9	+1·2	66·5	+1·0	74·7	+1·1	16·4	88·8	25th	64·3	1st	24·5
		Hassan	3,091	26·819		29·821	26·884	23rd	26·739	9th	·145	70·7	78·1		65·5		71·9		12·6	86·6	24th	62·3	22nd & 23rd	24·3
		Mysore	2,518	27·385	+·005	29·824	27·454	23rd	27·294	9th	·160	73·2	83·6*	−0·2*	67·5	+0·8	75·5*	+0·3	16·1	88·6	31st	65·5	22nd & 23rd	23·1
56	Madras (East Coast, South).	Negapatam	31	29·818	+·013	29·778	29·875	15th	29·729	9th	·146													
		Cuddalore	12	29·811	0	29·752	29·882	23rd	29·717	8th	·165	84·0	96·8†	+3·2†	79·0	+2·5	88·0†	+2·9	17·8	99·8	16th	74·2	22nd	25·6
		Trichinopoly	255	29·590	0	29·776	29·651	23rd	29·494	9th	·157	83·7	93·6	+2·6	78·7	+2·4	88·7	+2·5	19·9	102·6	22nd	74·4	29th	28·2
		Madras	22	29·788	−·001	29·741	29·860	23rd	29·694	8th	·166	85·4	98·4	+4·7	80·0	+2·7	89·2	+3·7	18·4	103·5	17th	75·5	1st	28·0
		Vellore	707	29·133		29·777	29·196	23rd	29·049	8th	·147	82·6	95·9		81·2‡		88·7‡		14·7	99·9	24th	74·2	30th	25·7
55	Madras (East Coast, Central).	Nellore	71	29·710	+·004	29·714	29·789	23rd	29·616	8th	·173	86·6	98·6	+3·6	80·2	+1·7	89·4	+2·7	18·4	103·8	30th	75·1	1st	28·7
		Masulipatam	15	29·730	−·009	29·679	29·815	23rd	29·642	8th	·173	83·5	92·4	+1·1	79·3	+1·8	85·9	+1·5	13·1	98·7	30th	71·1	1st	27·6
54	Madras (Central)	Cuddapah	433	29·369	−·012	29·738	29·465	23rd	29·265	8th	·200	84·8	97·7	?	79·2	+2·7	88·5	?	18·5	101·2	15th, 16th & 30th.	73·2	1st & 27th.	28·0
		Kurnool	924	28·861	−·014	29·730	28·969	23rd	28·755	8th	·214	78·3	90·8	+1·7	73·7	+0·2	82·3	+1·0	17·1	95·2	4 days	70·4	22nd	24·8
		Bellary	1,475	28·330	−·007	29·748	28·421	23rd	28·233	9th	·188	79·1	89·9	−0·9	74·8	+1·4	82·4	+0·3	15·1	96·2	30th	72·2	1st, 20th & 21st.	24·0
52	Madras (East Coast, North).	Cocanada	26	29·671	−·018	29·631	29·776	23rd	29·559	9th	·217	82·4	90·7	+1·5	79·4	+1·2	85·1	+1·5	11·3	98·6	26th	73·5	1st	25·1
		Waltair (Vizag.)	226	29·435	−·031	29·601	29·557	30th	29·283	12th	·274	82·1	89·7	+0·7	78·8	0	84·3	+0·4	10·9	97·4	17th	74·4	1st	23·0
		Gopalpur	21	29·603	−·031	29·564	29·732	22nd	29·465	11th & 12th	·267	82·3	87·8	+0·7	78·5	−0·3	83·1	+0·2	9·3	91·3	24th & 26th.	76·1	5 days	15·2
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·605			25·690	2nd	25·490	11th & 15th.	·200	80·5	97·9		66·3		82·1		31·6	103·0	19th & 28th.	58·0	10th	45·0
		Pishin											95·3		61·2		78·2		34·1	99·0	4 days	51·0	18th	48·0
		Quetta	5,502	24·480	+·005		24·570	19th	24·380	3rd	·190	74·6	92·0	+1·4	62·1	+0·2	77·1	+0·8	29·9	97·6	31st	51·8	18th	45·8
		Kalat										75·5	92·7		54·2		73·5		38·5	100·3	8th	43·2	18th	57·1
		Chaman	4,311	25·535	?		25·625	18th & 31st.	25·383	3rd	·242	83·6	100·1	+2·6	72·4	+2·2	86·3	+2·4	27·7	106·2	7th	65·1	17th	41·1
30	Punjab	Leh	11,503	19·687	+·022		19·763	30th	19·604	3rd	·159	58·9	77·0	−1·3	50·0	+0·3	63·5	−0·5	27·0	82·2	7th	44·9	29th	37·3
		Srinagar	5,204	24·718	+·018		24·818	19th	24·642	24th	·176	69·2	83·1	−1·3	64·1	+1·0	73·6	−0·2	19·0	89·8	31st	58·2	17th	31·6
		Gulmarg		21·806			21·872	19th	21·707	16th	·165	61·2	67·8		50·3		59·1		17·5	75·9	6th	45·8	18th	30·1
		Skardu		22·710			22·851	19th	22·584	7th	·267	69·9	85·4		63·1		74·3		22·3	98·1	7th	53·7	17th	44·4
		Dras		20·758			20·839	27th	20·671	3rd	·168	62·6	79·6		49·2		64·4		30·4	88·5	7th & 13th.	43·7	19th	44·8
		Gilgit		24·891			25·034	19th	24·706	7th	·328	80·9	96·9		72·5		84·7		24·4	107·4	7th	59·3	18th	48·1
		Chitral		24·443			24·550	14th & 18th.	24·312	7th	·238	77·4	95·6		67·7		81·6		27·9	101·7	21st & 25th.	57·5	18th	44·2
		Killa Drosh										80·8	95·6		72·6		84·2		23·0	101·6	20th	62·1	14th	39·5
		Para Chinar	6,000									74·6	84·4		65·1		74·8		19·3	90·7	31st	57·1	17th	33·6
		Cherat		25·523	+·002		25·604	19th	25·428	16th	·176	75·4	88·0	+1·8	71·2	+1·2	79·6	+1·5	16·8	97·4	24th	64·1	17th	37·1

* Mean of 24 days. † Mean of 30 days. ‡ Mean of 28 days.

—continued.

India, Burma, etc., in August, 1900—continued.

Wind Direction. Number of winds from N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st August 1900.	Normal rainfall for period, 1st June to 31st August.	Variation from normal of period, 1st June to 31st August.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																			2·81	4·36	−1·48					**XI.—South India.**		
	1		6	2	20	1	1	S 30° W	11·5	12·2			71	·824	2·5	0	0·30	− 0·30	0	0·23	− 0·23	2·16	0·98	+ 1·18	0	Pamban	Madras (South).	57
4		1	1		9	9	7	N 81° W	8·9	8·5			57	·721	3·4	0	1·00	− 1·00	0	0·31	− 0·31	0·27	1·35	− 1·06	0	Tinnevelly.		
7			1		8	3	11	N 61° W	2·9	2·9	3·7	− 22	64	·763	3·6	3	5·36	− 2·36	5·96	4·00	+ 1·96	7·84	7·78	+ 0·06	2·66	Madura.		
2	5	1		1	1	2	8	N 22° W	4·0	4·4			64	·666	4·3	1			1·44			4·86			1·15	Periya Kulam		
		1	6	7	13	3	1	S 21° W	6·4	5·8	4·2	+ 38	76	·791	5·2	5	11·78	− 6·78	1·58	7·66	− 6·08	10·34	15·30	− 4·96	0·41	Salem	Madras (South Central).	34
				1	13	17		S 69° W	5·3		7·4	− 28	80	·754	6·2	8	2·91	+ 5·09	1·97	1·19	+ 0·78	5·56	3·85	+ 1·71	0·37	Coimbatore.		
					3	21	7	N 84° W	8·7	8·1	8·9	− 9	96	·606	9·7	27	26·30	+ 0·70	42·24	26·25	+15·99	118·01	94·46	+23·55	4·19	Mercara	Coorg.	35
					12	17	2	S 75° W	13·7	11·9			82	·661	9·6	8			2·61	2·99	− 0·38	7·24	8·86	− 1·62	1·19	Chitaldroog	Mysore.	36
					15	16		S 68° W	13·6	11·8	7·6	+ 55	83	·629	8·3	6	10·73	− 4·73	2·62	5·80	− 3·18	9·89	13·84	− 3·95	1·30	Bangalore.		
					6	17	8	N 87° W	5·5	4·8			86	·646	9·0	13			7·56	2·85	+ 4·71	20·98	11·99	+ 8·99	1·55	Hassan.		
					14	17		S 70° W	13·2	14·3			82	·665	8·5	4			1·34	3·15	− 1·81	5·50	7·59	− 2·09	0·44	Mysore.		
				2	11	17	1	S 70° W	?		5·7	?			4·4	2	5·91	− 3·91	5·37	3·84	+ 1·53	10·20	7·85	+ 2·35	4·95	Negapatam	Madras (East Coast, South).	56
				8	15	8		S 45° W	3·2	4·0			74	·865	5·2	8	8·00	0	3·36	5·17	− 1·81	6·86	9·32	− 2·46	0·89	Cuddalore.		
					5	19	3	S 87° W	5·8		8·2	− 29	65	·743	4·6	3	5·36	− 2·36	2·73	4·67	− 1·94	6·45	7·79	− 1·34	2·15	Trichinopoly		
				3	10	18		S 68° W	8·1		7·3	+ 11	64	·780	5·9	5	8·27	− 3·27	1·51	4·56	− 3·05	4·85	10·54	− 5·69	0·28	Madras.		
					29			S 45° W	3·5				65	·725	3·9	1			2·85			14·32			2·76	Vellore.		
				3	3	12	13	N 80° W	10·1				59	·743	6·2	2	5·50	− 3·50	0·66	3·40	− 2·74	4·58	7·40	− 2·82	0·23	Nellore	Madras (East Coast, Central).	55
					4	16	11	N 80° W	11·5		7·8	+ 47	74	·846	7·5	7	9·00	− 2·00	1·97	7·02	− 5·05	14·32	18·25	− 3·93	0·93	Masulipatam		
					8	20	3	S 83° W					61	·736	5·7	3	7·90	− 4·90	0·71	6·38	−5·67	5·76	14·39	− 8·63	0·46	Cuddapah	Madras (Central).	54
1					3	20	6	N 83° W					75	·719	6·8	6	9·33	− 3·33	2·58	5·85	− 3·27	16·75	14·71	+ 2·04	0·77	Kurnool.		
					3	26	1	S 87° W	12·4	13·1	10·7	+ 22	57	·571	8·4	3	4·55	− 1·55	0·81	2·58	− 1·77	5·29	6·41	− 1·12	0·32	Bellary.		
				1	18	10	2	S 63° W	9·2	8·5			77	·850	7·4	9	9·10	− 0·10	3·86	5·71	− 1·85	7·93	17·75	− 9·82	0·91	Cocanada	Madras (East Coast, North).	52
					28	1		S 47° W	13·7				77	·812	7·8	8			3·08	5·89	− 2·81	12·01	14·47	− 2·46	0·62	Waltair (Vizag.).		
3				1	21	2	2	S 60° W	14·6	14·3	9·1	+57	88	·957	4·4	13	11·44	+ 1·56	10·17	8·21	+ 1·96	21·13	22·20	− 1·07	4·53	Gopalpur.		
																										XII.—Hill Stations.		
	1		11		5		13		2·0?				56	·577	2·1	5			2·49	2·10	+ 0·39	2·97	5·90	− 2·93	1·50	Shahrig	Baluchistan.	48
																			0	0·21	− 0·21	0	0·48	− 0·48	0	Pishin.		
					2	1		S 63° W	1·5	1·6	4·5	− 64	59	·510	1·2	0	0·91	− 0·91	0·02	0·70	− 0·68	1·07	2·03	− 0·96	0·02	Quetta.		
3		7		20				S 22° E					45	·402		1			0·42	0·52	− 0·10	0·44	1·25	− 0·81	0·35	Kalat.		
1		4	6	4	13	3		S 14° W	4·0	4·2			77	·883	0·2	0			0	0	0	0	0·42	− 0·42	0	Chaman.		
	10	4	2	8	6	1		S 44° E	1·6				58	·291	4·1	3			0·59	0·61	− 0·02	1·75	1·29	+ 0·46	0·23	Leh	Punjab.	30
	1	1	7	6	1		1	S 88° E	3·1	3·3			91	·658	4·4	4			3·56	7·36	− 3·80	8·37	19·17	−10·80	1·90	Srinagar.		
	7	3	4		1		2	N 71° E	3·0				90	·494	4·6	9			5·59			11·38			2·51	Gulmarg.		
	1	1		1	3	3		S 54° W	5·2	6·2			61	·438	4·1	2			1·20	1·33	− 0·13	2·06	2·12	− 0·06	0·91	Skardu.		
	1		1		6	3		S 54° W	7·5	7·7			57	·323	4·3	2			1·66	0·43	+ 1·23	3·64			0·87	Dras.		
					2			S 45° W	1·8	1·8			44	·452	5·1	1			0·40	0·36	+ 0·04	0·49	1·46	− 0·97	0·31	Gilgit.		
				2				S	8·1	7·8			55	·529	0	2			0·21			1·88			0·11	Chitral.		
8		7		5		2		N 59° E					53	·513	4·0	5			1·65			3·13			0·37	Killa Drosh.		
10	5	5	4	2	2	1	2	N 42° E	3·3				59	·509	4·6	7			2·38			7·41			0·52	Para Chinar.		
4	1		1	18		3	1	S 10° W	7·0	6·5			76	·650	4·3	7			6·61	3·24	+ 3·37	8·94	8·53	+ 0·41	4·65	Cherat.		

Tab

Abstract of Observations taken at 8 A.M. at 219 Statio

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
30	Punjab—(*concld.*)	Murree	6,333	23·777	+·043		23·824	31st	23·669	16th	·155	67·0	74·1	0	62·0	+1·0	68·1	+0·5	12·1	80·3	24th	55·9	3rd 8th & 16th.	24·
		Poo											79·8		59·8		69·8		20·0	83·5	23rd & 31st.	57·1	10th	26·
		Simla	7,224	23·031	+·016		23·102	31st	22·934	16th	·168	62·7	67·1	−0·3	60·3	+0·6	63·7	+0·2	6·8	72·6	21st	57·6	10th	15·
25	North-Western Provinces.	Chakrata	7,022	23·194	+·020		23·258	31st	23·120	3rd	·138	63·5	67·7	−1·5	60·2	+0·8	64·0	−0·4	7·5	72·7	20th	57·7	1st & 9th.	15·
		Mussooree	6,705	23·457	+·018		23·516	21st	23·374	3rd	·142	63·9	69·3	+0·5	61·2	+1·5	65·3	+1·0	8·1	73·8	21st	59·9	9 days	13·
		Ranikhet	6,069	23·992	+·015		24·064	31st	23·904	3rd	·160	66·3	73·8	+1·4	63·2	+1·2	68·5	+1·3	10·6	79·0	5th	61·0	1st & 14th.	18·
		Muktesar		22·760			22·815	31st	22·681	3rd	·124	61·7	69·4		58·5		64·0		10·9	74·3	4th	55·8	1st	18·
13	Bengal	Yatung	10,480?										62·6		49·4		56·0		13·2	69·1	19th	44·9	2nd & 20th.	24·
		Darjeeling	7,409	22·955	+·042		23·001	11th	22·877	4th	·124	61·4	67·3	+1·3	57·9	+1·2	62·7	+1·3	9·4	72·2	17th	56·6	2nd & 8th,	15·
		Gantok	5,660	24·408			24·561	10th	24·229	18th & 21st	·332	67·2	75·1		48·0		61·6		27·1	79·2	17th & 18th.	41·0	26th	38·
	Central India	Mount Abu	3,945	25·823	−·046		25·950	30th	25·696	3rd	·254	67·7	72·5	+0·6	66·3	+1·9	69·4	+1·3	6·2	79·2	3rd & 4th,	62·4	18th	16·
		Pachmarhi	3,528	26·217	−·057		26·349	23rd	26·038	13th	·311	68·8	73·9	−0·9	67·3	+0·4	70·6	−0·3	6·6	77·7	8th & 13th.	64·2	22nd & 30th,	13·
	South India	Wellington	6,200	24·204	0		24·267	23rd	24·127	9th	·140	64·0	71·6	+0·8	57·5	+0·3	64·6	+0·6	14·1	76·7	20th	51·7	22nd	25·
		Kodaikanal	7,688	22·797			22·850	16th	22·710	8th	·140	57·9	63·2		52·7		58·0		10·5	68·6	20th	49·3	1st	19·3
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·844	+·011	29·782	29·960	15th	29·760	9th	·140	82·6	92·9	−1·5?	78·3	+1·9	85·6	+0·2?	14·6	96·5	25th	74·0	29th	22·5
		Colombo	40	29·902	+·016	29·868	29·957	15th	29·815	26th	·142	81·1	87·2	+2·0	77·4	+0·3	82·3	+1·2	9·8	89·0	6 days	73·0	5th	16·0
	Persia	Meshed	3,104									76·0			63·2							56·8	28th	
		Teheran		25·783†			25·950	31st	25·550	3rd	·400	83·6	96·8		65·9		81·4		30·9	102·4	5th	50·5	30th	51·9
				25·218§			25·360	31st	25·100	4th	·260													
		Ispahan		24·153†			24·250	30th & 31st.	23·975	3rd	·275	80·9	98·9		65·6		82·8		32·3	103·6	11th	61·1	30th	42·5
		Bushire	14	29·539	−·005	29·512	29·656	18th	29·431	4th	·225	89·5	95·3	−1·2	84·0	+0·4	89·7	−0·4	11·3	100·5	19th	77·9	28th	22·6
		Jask		29·560	−·041		29·675	29th	29·343	3rd	·332	89·3	95·4	+0·6	85·7	+1·6	90·6	+1·1	9·7	99·3	3rd & 4th.	82·2	28th & 29th,	17·1
	Arabia	Muscat	20	29·552		29·519	29·671	18th	29·385	3rd	·286	88·0	89·7		86·0		87·9		3·7	98·3	3rd	78·7	28th	19·6
		Baghdad	220	29·480	−·028	29·669	29·608	30th	29·374	11th	·234	87·4	108·6	+0·8	76·1	−2·0	92·4	−0·6	32·5	114·4	1st	71·6	29th	42·8
		Busrah		29·567			29·680	29th	29·500	8th	·180		104·1		82·4		93·3		21·7	109·9	2nd	77·9	31st	32·0
		Aden	94	29·664	+·014	29·688	29·753	1st	29·543	28th	·210	84·2	92·4	+0·5	79·5	−1·0	86·0	−0·3	12·9	97·8	23rd	75·4	4th	22·4
		Perim	201	29·581		29·713	29·662	2nd	29·469	28th	·193	87·8	93·6		84·7		89·2		8·9	98·2	29th	77·2	3rd	21·0
	Afghanistan	Kabul										71·6	93·6		60·6		77·1		33·0	99·1	24th & 31st.	54·4	17th, 18th & 19th,	44·7
	Central Asia	Kashgar		25·498‡			25·741	29th	25·322	2nd	·419	74·1	87·7		65·4		76·6		22·3	95·3	25th	60·1	28th	35·2
	Arabian Sea Islands.	Amini Devi	13	29·897*		29·838*	29·973	18th	29·801	8th	·172													
		Minicoy	7	29·932		29·864	29·997	18th	29·863	26th	·134	81·9	86·2							88·3	26th			
	Africa	Zanzibar	73	30·090	+·002	30·091	30·152	19th	29·974	7th	·178	75·0	81·1		73·2		77·2		7·9	83·9	30th	71·6	20th	12·3

‡ Aneroid corrected.
† Aneroid uncorrected.
* Mean of 30 days.
§ Mountain barometer uncorrected.

NOTE.—When a query is inserted against any reading or in the variation returns fo any

—concluded.

India, Burma, etc., in August 1900—concluded.

Wind Direction. Number of winds from Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 31st August 1900.	Normal rainfall for period, 1st June to 31st August.	Variation from normal of period, 1st June to 31st August.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
16	2		2	5	1		1	4	N 78° E	3·0	3·7	4·8	− 23	85	·572	3·8	13	15·64	−2·64	9·81	14·28	− 4·47	27·39	28·40	− 1·01	2·06	Murree.	Punjab—(*concld.*)	30
14	1	2	1		1	4	5	3	N 83° W							5·8	2			0·59	0·45	+ 0·14	1·23	1·86	− 0·63	0·34	Poo.		
7	3	2		4	9	3	1	1	S 3° E	3·5		1·6	+119	91	·517	8·6	19	19·45	−0·45	15·66	17·98	− 2·32	36·93	42·32	− 5·39	2·46	Simla.		
3	3	2		4	3	3		3	S	7·3		4·3	+ 70	90	·528	4·2	26			17·53	18·59	− 1·06	43·49	44·92	− 1·43	3·59	Chakrata .	North-Western Provinces.	25
1		1	13	1	1		3	1	S 88° E					94	·561	8·4	26	22·18	+3·82	26·48	30·90	− 4·42	59·09	69·09	−10·00	3·08	Mussooree.		
3		4	3			5	3	3	N 63° W	2·3	2·6	1·9	+ 37	89	·584	9·0	19	17·82	+1·18	10·26	13·91	− 3·65	24·41	33·13	− 8·72	1·25	Ranikhet.		
		2	2	14	1	4		8	S 36° E	8·0	7·4			93	·516	8·5	18			10·65			25·01			1·30	Muktesar.		
																	24			9·12	9·30	− 0·18	33·02			1·02	Yatung .	Bengal.	13
0	1	10	5	2	1			1	N 65° E	3·2	3·0	3·4	− 12	95	·520	8·0	20	24·35	−4·35	18·18	25·61	− 7·43	81·07	81·75	− 0·68	2·98	Darjeeling.		
0			1						E	1·8	2·1			92	·617	3·8	28			27·44	24·98	+ 2·46	68·83	69·08	− 0·25	3·30	Gantok.		
1	3	3		1		17	5	1	S 65° W	9·6	10·0	10·8	− 7	97	·655	9·9	18	18·50	−0·50	20·57	22·39	− 1·82	27·88	52·94	−25·06	2·99	Mount Abu	Central India.	
3		1				4	12	11	N 75° W	14·7	15·1	7·5	+101	95	·677	9·8	28	21·18	+6·82	30·98	19·74	+11·24	53·96	56·23	− 2·27	5·71	Pachmarhi.		
9			1		2	10	8	1	S 64° W	4·2		3·8	+ 11	73	·442	6·3	13	10·89	+2·11	4·64	4·19	+ 0·45	10·70	11·67	− 0·97	1·06	Wellington.	South India.	
						5	2	21	N 61° W	14·6				79	·381	5·4*	13			3·36			11·54			0·69	Kodaikanal.		
																											XIII.—Extra India.		
						31			S 45° W	18·4				79	·892	1·5	5			5·48	5·10	+ 0·38	6·52	9·78	− 3·26	2·26	Trincomalee	Ceylon.	
				1	2	18	10		S 56° W	9·7		8·7	+ 11	86	·922	5·9	10			3·93	4·19	− 0·26	18·53	16·98	+ 1·55	0·95	Colombo.		
														68	·615		0			0	0·02	− 0·02	0·49	0·27	+ 0·22	0	Meshed .	Persia.	
		4			4	16	4	3	S 56° W	1·0	1·3			28	·323	0·5	0			0	0·09	− 0·09	0·62	0·61	− 0·59	0	Teheran.		
										1·9	2·5			43	·454	0·6	0			0	0	0	0	0·10	− 0·10	0	Ispahan.		
2	7	4	2	2	1		2	11	N 13° W	9·0	10·7	7·8	+ 37	66	·911	0·6	0			0	0	0	0	0	0	0	Bushire.		
			22	5			1		S 82° E	14·1	16·4			77	1·072	2·2	0			0	0	0	0	0·15	− 0·15	0	Jask.		
2	2		3	14				5	S 71° E	4·6	4·8			76	1·011	3·4	0			0	0	0	0	0·08	− 0·08	0	Muscat .	Arabia.	
1	14						1	9	N 19° W	3·5	4·7			46	·595	0	0			0	0·13	− 0·13	0·02	0·14	− 0·12	0	Baghdad.		
																	0			0			0·03				Busrah.		
			2	2	2	11			S 16° W	?		10·8	?	74	·870	4·0	0			0	0·21	− 0·21	0	0·22	− 0·22	0	Aden.		
		2	1			15	9	3	S 72° W	16·5	15·4			79	1·045	2·0	1			0·48	0·38	+ 0·10	1·90	0·40	+ 1·50	0·48	Perim.		
		1				4	1	2	S 79° W					47	·364	0	0			0·06	0·17	− 0·11	0·31	0·93	− 0·62	0·06	Kabul .	Afghanistan.	
	2	3	1	1	1	1	3	5	N 31° W	9·6	8·6			58	·482	4·5	2			0·61	0·48	+ 0·13	2·21	1·46	+ 0·75	0·48	Kashgar .	Central Asia.	
	1					9	16	4	S 83° W							5·2*	3			4·41			28·29			1·78	Amini Devi.	Arabian Sea Island.	
						3	20	8	N 82° W	14·1	15·1			81	·889	4·5	12			5·55			29·54			2·54	Minicoy.		
				6	14	9	1		S 7° W	6·6	6·2			85	·733	7·2	4			1·52	1·83	− 0·51	7·65	5·19	+ 2·46	0·34	Zanzibar .	Africa.	

ation, the data for that station are not utilized in calculating the provincial variations.

* Mean of 30 days.

Tab

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

Meteorological Province.	Station.	Elevation of barcistern above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bu Mean minimum.	Mean 10 hours.	Mean 16 hours.
Burma Coast and Bay Islands.	Port Blair		29·793	29·711	·082	29·748	+·001	29·740	85·9	78·7‡	7·2	90·1	74·2	15·9	83·8	84·1	81·5‡	+ 1·6	76·1	79·6	79·5
	Rangoon		·754	·660	·094	·713	−·041	·693†	85·7‡	76·0‡	9·7	90·6	73·3	17·3	81·8†	81·0‡	79·0†	+ 0·5	74·9‡	78·8†	78·1‡
	Diamond Island		·759	·674	·085	·713	−·032	·689	84·4	77·9	6·5	87·0	74·2	12·8	81·6	82·1	80·2	+ 1·7	75·2	78·4	78·5
	Cocos Island‡	111	·731	·661	·070	·691	+·021	·734	85·6	77·6	8·0	89·2	73·9	15·3	82·8	83·2	80.6	+ 0·8	?	79·1	79·0
	Akyab		·695	·603	·092	·653	−·054	·616	85·1	74·9	10·2	89·7	72·6	17·1	81·8	81·8	78·8	− 1·4	?	79·0	79·4
Bengal and Orissa.	Chittagong		·585	·494	·091	·547	−·057	·581	87·7	77·3	10·4	91·9	75·9	16·0	84·3	84·7	81·4	+ 1·7	76·3	79·8	80·2
	Calcutta (Allpore)		·597	·505	·092	·556	−·040	·522	89·1	78·9	10·2	93·9	76·4	17·5	85·2	85·4	83·7	+ 1·2	77·8	81·2	81·1
	Saugor Island		·578	·490	·088	·539	−·052	·508	87·7	80·6	7·1	92·9	78·1	14·8	84·6	85·5	83·2	+ 0·8	78·6	81·5	81·4
	False Point		·590	·501	·089	·551	−·067	·512	86·9	78·9	8·0	92·1	75·1	17·0	84·3	85·0	82·0	+ 0·5	77·8	80·3	80·9
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·626	27·536	·090	27·583	−·036	·511	84·3	73·6	10·7	87·6	71·6	16·0	79·6	80·6	77·6	+ 0·3	72·3	74·5	75·1
	Darbhanga		29·465	29·358	·107	29·417	−·021	·533	89·9	80·7	9·2	95·8	77·5	18·3	86·9	88·1	84·4	+ 1·5	78·8	81·8	82·1
	Allahabad		·275	·169	·106	·226	−·047	·485	90·5	79·5	11·0	97·1	76·6	20·5	85·6	87·5	83·7	+ 0·5	77·0	80·3	80·9
Upper Sub-Himalayas.	Dehra Dun		27·438	27·356	·082	27·390	−·014	·551	84·1	73·4	10·7	90·8	69·3	21·5	78·7	80·6	77·3	− 0·7	71·7	74·9	76·0
	Roorkee		28·729	28·627	·102	28·674	−·014	·512	90·1	77·7	12·4	94·9	74·1	20·8	84·7	87·9	82·7	− 0·3	75·0	78·5	79·8
	Meerut		·854	·754	·100	·797	−·036	·488	91·5	79·1	12·4	95·8	75·3	20·5	86·0	88·2	84·3	+ 0·5	77·3	80·2	80·8
	Lahore		·874	·787	·087	·823	−·020	·477	94·7	82·0	12·7	102·8	74·3	28·5	89·1	93·3	87·7	+ 1·1	78·3	81·2	81·7
	Lahore (New Shed)								96·9	81·1	15·8	105·3	73·1	32·2	90·2	94·3	88·1		78·4	81·5	81·6
	Ludhiana		·770	·682	·088	·720	−·025	·487	90·8	79·6	11·2	96·5	73·1	23·4	85·0	88·7	84·3	− 1·4	77·8	79·5	80·4
Indus Valley and N.-W. Rajputana.	Peshawar		·488	·362	·126	·418	−·014	·474	100·3	78·5	21·8	107·0	72·1	34·9	90·6	98·8	88·7	+ 1·5	73·8	79·3	79·7
	Jacobabad		29·350	29·239	·111	29·287	−·035	·424	106·8	83·4	23·4	116·0	78·6	37·4	95·9	103·2	93·9	+ 2·3	77·0	81·8	83·1
	Kurrachee		·589	·505	·084	·550	−·040	·530	91·9	81·1	10·8	95·8	74·2	21·6	87·5	88·7	85·4	+ 3·3	76·6	80·3	80·7
East Rajputana, Central India, and Gujarat.	Jaipur		28·188	28·100	·088	28·143	−·043	·507	90·7	77·4	13·3	96·6	72·3	24·3	84·3	88·5	82·8	+ 1·4	75·3	78·4	79·7
	Udaipur		27·722	27·650	·072	27·686		·546	83·3	73·7	9·6	89·9	70·5	19·4	79·5	80·1	77·7		71·6	74·4	75·3
	Deesa		29·170	29·079	·091	29·122	−·050	·538	88·5	77·2	11·3	94·5	73·8	20·7	82·6	85·7	81·9	+ 0·4	75·4	77·5	78·0
	Jamnagar		·591	·516	·075	·553		·560	86·3	76·7	9·6	90·6	73·2	17·4	83·4	84·4	81·0			78·1	78·4
Deccan.	Belgaum		27·283	27·214‡	·069	27·248	−·012	·711‡	75·7	67·2	8·5	79·3	64·8	14·5	72·4	72·9‡	70·2‡	+ 0·7	66·5	69·9	70·0
	Sholapur		28·177	28·067	·110	28·129	−·024	·642	89·9	71·7	18·2	96·4	68·9	27·5	82·3	86·3	79·4	+ 1·3	69·0	71·8	72·1
	Poona		27·918	27·855	·063	27·887	−·029	·664	80·9	70·2	10·7	86·1	68·9	17·2	77·0	77·7	73·8	+ 0·2	69·4	71·6	71·6
	Akola		28·763	28·659	·104	28·709	−·032	·584	86·9	73·5	13·4	91·7	69·4	22·3	81·5	84·8	80·0	+ 0·4	72·1	75·2	76·2
	Buldana	2,132	27·583	27·495	·088	27·537	−·037	·592	82·0	69·9	12·1	85·7	66·7	19·0	76·5	79·4	75·6	+ 0·3	68·3	71·3	72·6
	Khandwa		28·621	28·523	·098	28·570	−·047	·563	84·8	74·7	10·1	88·2	71·6	16·6	80·4	83·3	78·8	+ 0·5	72·5	75·2	76·4
	Nagpur		·629	·528	·101	·577	−·035	·547	86·8	75·1	11·7	92·0	71·1	20·9	80·4	84·0	80·5	+ 0·3	73·4	75·5	76·5
	Nagpur (Sanitary Commr.'s Office)		·644	·536	·108	·588		·549	87·7	74·8	12·9	92·2	71·1	21·1	81·7	84·6	80·5		73·1	76·1	77·1
	Hyderabad (Deccan).		·065	27·959	·106	·016	−·014	·631	86·1	72·9	13·2	90·7	70·3	20·4	79·5	84·8	79·2	+ 1·9	69·7	72·3	74·5
West Coast.	Bombay		29·730	29·660	·070	29·692	−·035	·669	83·8	77·5	6·3	85·9	75·0	10·9	81·4	81·7	80·3	+ 0·4	74·8	78·2	77·9
	Karwar		·837	·769	·068	·800	+·013	·776	83·1	75·6	7·5	84·5	73·3	11·2	80·7	81·2	79·0	+ 1·2	73·7	76·9	76·9

† Mean of 29 days. ‡ Mean of 30 days.

I.

Stations in India, Burma, etc., for August, 1900.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Number of winds from											Wind Steadiness.		Wind Velocity.		Rainfall.			
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	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.
																									%	%						
1·701	·959	·951	·927	+·034	89‡	83	81	84	−2	7·8	8·0	7·9	+0·4							31	31		S. 68° W.	S. 49° W.	92	82	380	242			Port Blair	Burma Coast and Bay Islands.
1·651‡	·951†	·928‡	·910	+·022	94‡	87†	88‡	90	0	8·5	9·2	8·9	0		1		1	3	23	22	11	1	S. 32° W.	S. 38° W.	74	65	121	110			Rangoon	
1·635	·936	·934	·902	+·029	88	86	85	86	−1	8·3	8·7	8·5	+0·5					1	10	32	15	4	S. 52° W.	S. 45° W.	81	78	300*	193			Diamond Island.	
?	·951	·939	?	?	?	85	83	?	?	8·2	8·4	8·3	−0·1						4	49	6	1	S. 48° W.	S. 41° W.	94	91	288	?	16·19	2·80	Cocos Island.	
?	·959	·971	?	?	?	88	89	?	?	8·7	8·3	8·5	+0·3				1	19	27	10	5		S. 3° E.	S. 1° E.	77	63	81	85			Akyab	
1·992	·957	·974	·941	+·035	95	81	82	86	−1	8·2	8·5	8·4	+0·7			2	2	18	18	16	4	2	S. 1° W.	S. 25° E.	63	61‡	200*	142			Chittagong	Bengal and Orissa.
1·941	1·013	1·008	·987	+·030	95	84	83	87	−1	8·5	9·0	8·8	+0·5	1	2	4	17	10	9	9	7	3	S. 36° E.	S. 14° E.	31	56	124	115			Calcutta (Alipore).	
1·919	1·032	1·016	·999	+·011	91	86	83	87	0	8·4	8·6	8·5	+0·6		3	4	6	7	13	16	7	6	S. 24° W.	S. 13° W.	34	57	348	315			Saugor Island.	
1·939	·982	1·002	·974	+·041	95	84	84	88	+3	8·6	8·7	8·7	+0·8	2	2	2	4	1	10	17	17	7	S. 63° W.	S. 47° W.	50	53	252*	238			False Point	
·780	·793	·804	·792	−·007	94	79	77	83	−2	10·0	9·9	10·0	+1·0		6	7	12	6	15	4	2	10	S. 66° E.	S. 4° W.	16	8	210*	185			Hazaribagh	Gangetic Plain and Chota Nagpur.
1·063	1·016	1·020	1·000	+·039	91	80	77	83	−1	6·1	5·2	5·7	−0·5	21		1	19	19	1			1	S. 68° E.	S. 77° E.	56	60	80	111			Darbhanga	
·996	·967	·971	·944	−·002	89	79	75	81	−2	8·5	7·8	8·2	+0·4	1	2	11	22	3	5	5	9	4	N. 83° E.	N. 16° E.	27	4	220*	136			Allahabad	
·862	·822	·846	·810	+·017	92	84	81	86	−1	8·5	7·8	8·2	+0·5	13	4		19	23	3				S. 67° E.	S. 26° W.	63	14	21	24			Dehra Dun	Upper Sub-Himalaya.
·830	·891	·908	·876	+·012	88	75	70	78	0	7·3	6·5	6·9	+0·5	28		4	2	18	6		1	3	S. 46° E	S. 24° E.	32	22	73	58			Roorkee	
·818	·957	·959	·945	+·067	92	77	72	80	+3	7·6	6·3	7·0	+0·5	27			17	15			1	2	S. 70° E.	S. 55° E.	43	10	29*	48			Meerut	
·874	·961	·928	·938	+·070	84	70	61	72	+7	4·4	3·4	3·9	+0·2	12	3		14	12	3	3	6	9	S. 62° E.	S. 80° E.	14	25	69	68			Lahore	
·810	·959	·909	·936		88	68	58	72																							Lahore (New Shed).	
·810	·948	·939	·939	+·065	92	78	70	80	+7	6·1	5·6	5·9	+0·1	11	3	1	2	15	25		5		S. 15° E.	S. 59° E.	52	11	52*	39			Ludhiana	
·871	·868	·779	·809	+·034	80	60	42	61	0	2·1	2·1	2·1	−0·8	18	25	9	3			1	1	5	N. 7° E.	N. 41° E.	55	51	56*	93			Peshawar	Indus Valley and N.-W. Rajputana.
·817	·895	·865	·869	+·048	74	53	42	56	−1	1·5	2·7	2·1	−0·2	21	2	2	6	23	7	1			S. 48° E.	S. 44° E.	50	59	78*	101			Jacobabad	
1·[illegible]	·941	·940	·914	+·045	81	72	69	74	−5	6·4	4·8	5·6	−1·1					1	4	35	20	2	S. 60° W.	S. 67° W.	86	88	353*	397			Kurrachee	
1·[illegible]	·896	·905	·884	+·075	90	76	67	78	+2	7·8	8·0	7·9	+0·5	2	3	17	7	4	1	5	17	6	N. 14° W.	N. 66° W.	19	43	105	118			Jaipur	East Rajputana, Central India, and Gujarat.
1·[illegible]	·796	·822	·789		90	79	80	83		8·5	8·4	8·5		11	2	3	3	3	3	12	18	7	S. 80° W.		40		41				Udaipur	
1·[illegible]	·679	·857	·865	+·065	92	79	71	80	+5	8·9	8·6	8·8	+0·8		3	3		2	3	18	31	2	S. 76° W.	S. 52° W.	69	75	249	278			Deesa	
	·894	·892				78	76			6·2	6·0	6·1							6	32	32	2	S. 60° W.		86		381*				Jamnagar	
·[illegible]	·701	·697‡	·680	+·024	96	88	86‡	90	+1	8·6	8·5‡	8·6	−0·1							4	18	8	N. 84° W.	S. 71° W.	89	89	?	517			Belgaum	Deccan.
·[illegible]	·648	·610	·645	−·015	87	59	50	65	−4	8·2	8·9	8·6	+0·2							40	14	8	S. 88° W.	W.	73	81	299*	296			Sholapur	
·[illegible]	·709	·700	·706	+·023	96	77	74	82	+2	8·2	8·3	8·3	−0·3							15	45	2	S. 81° W.	S. 85° W.	93	89	469*	327			Poona	
·[illegible]	·789	·790	·784	+·031	93	74	67	78	+2	7·5	7·4	7·5	−0·7						1	10	32	19	N. 84° W.	N. 67° W.	85	82	254*	200			Akola	
·[illegible]	·704	·717	·698	+·001	92	77	72	80	−1	9·2	9·0	9·1	+1·3						1	16	34	11	S. 85° W.	N. 65° W.	86	76	262*	195	6·66	1·35	Buldana	
·[illegible]	·808	·824	·804	+·038	90	78	73	80	+1	7·8	8·0	7·9	+0·3		1					7	36	18	N. 81° W.	N. 81° W.	87	84	259	199			Khandwa	
·[illegible]	·825	·823	·817	+·020	92	80	71	81	+2	8·6	8·7	8·7	+0·1	1	1			1		19	27	13	S. 85° W.	N. 80° W.	79	64	286	191			Nagpur	
	835	·840	·823		92	77	71	80		8·0	8·2	8·1				3		9		32	3	15	S. 60° W.		52		82*				Do. (Sanitar) Commr.'s Office).	
	·706	·725	·706	−·019	85	70	62	72	−7	7·1	7·8	7·5	+0·7								49	11	N. 82° W.	N. 81° W.	95	84	240*	203			Hyderabad (Deccan).	
	·930	·909	·889	+·011	88	86	84	86	−1	8·8	9·3	9·1	+0·3		1					23	37	1	S. 75° W.	S. 81° W.	90	83	398	376			Bombay	West Coast.
	·874	·869	·850	+·022	91	84	82	85	−2	8·0	9·0	8·5	+1·3							12	38	12	W.	N. 87° W.	61	73	199	87			Karwar	

* Corrected.

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

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 daily pressure.	Variation from normal.	Mean reduced to S. L., 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 daily.	Variation from normal.	Temperature, W. Mean minimum.	Mean 10 hours.	Mean 16 hours.
South India.	Periyakulam		28·910	28·793	·117	28·852			94·4	72·3	22·1	98·6	67·3	31·3	87·2	87·9	81·7		68·9	73·1	73·[illegible]
	Salem		·927	·794	·133	·875	−·018	29·737	93·2	74·4	18·8	96·9	72·0	24·9	85·8	90·8	82·0	+2·2	71·9	75·7	76·[illegible]
	Chitaldroog		27·439	27·354	·085	27·406	−·003	·722	82·5	68·8	13·7	87·2	67·7	19·5	76·2	78·6	74·7	+1·2	66·9	70·1	70·[illegible]
	Bangalore		26·879	26·785	·094	26·844	0	·733	83·1	66·5	16·6	88·8	64·1	24·7	75·4	80·2	74·1	+1·8	65·4	68·5	69·[illegible]
	Hassan		·829	·755	·074	·804	+·001	·783	78·2	65·5	12·7	86·5	62·3	24·2	73·7	74·3	70·9	+1·1	64·7	68·9	69·[illegible]
	Mysore		27·388	27·301	·087	27·345	+·006	·766	83·2	67·6	15·6	88·7	65·5	23·2	77·6	78·8	74·3	+0·6	67·3	70·6	71·[illegible]
	Madras		29·782	29·653	·135	29·727	−·016	·676	98·6	79·7	18·9	103·5	76·7	26·8	90·8	91·1	86·9	+2·9		77·1	78·[illegible]
	Bellary		28·336	28·228	·108	28·291	−·013	·690	90·5	74·7	15·8	96·2	72·0	24·2	83·5	87·2	81·3	+0·5	67·6	70·0	71·[illegible]
	Waltair		29·440	29·349	·091	29·395		·559	89·9	78·8	11·1	97·2	74·5	22·7	85·6	85·8	83·3		73·2	77·3	77·[illegible]
Hill Stations, Baluchistan.	Quetta		24·483	24·396	·087	24·438	−·004		92·2	61·8	30·4	97·5	51·7	45·8	83·2	89·1	76·3	+1·3	54·4	64·1	64·[illegible]
Hill Stations, Northern India.	Leh		19·676	19·570	·106	19·633	+·012		77·1	50·0	27·1	82·2	44·9	37·3	67·1	73·9	62·5	+1·3	44·3	54·1	56·[illegible]
	Srinagar		24·720	24·636	·084	24·676	+·008		83·6	64·1	19·5	90·3	58·2	32·1	74·1	82·1	73·5	+1·0	62·6	71·5	76·[illegible]
	Kailang	10,087	20·887	20·809	·078	20·850	P		72·9	50·7	22·2	79·3	42·9	36·4	64·5	67·3	59·8	−0·4	49·7	58·3	56·[illegible]
	Simla (Ridge)		23·045	22·995	·050	23·018	+·016		67·2	60·2	7·0	72·6	57·6	15·0	64·1	64·9	63·2	−0·2	58·8‡	62·2	63·[illegible]
	Chakrata		·210	23·156	·054	·181	+·012		68·0	60·2	7·8	72·7	57·7	15·0	65·1	65·1	63·5	+0·1	60·0†	62·7	63·[illegible]
	Ranikhet		24·003	·934	·069	·954	−·001		73·6	63·3	10·3	78·9	61·0	17·9	69·2	70·0	67·6	+0·8	62·2	66·1	66·[illegible]
	Muktesar		22·776	22·716	·060	22·747			69·3	58·5	10·8	74·3	55·8	18·5	64·1	65·8	63·1		58·1	62·2	63·[illegible]
	Katmandu	4,388	25·423	25·329	·094	25·380	P		83·9	68·9	15·0	88·4	66·9	21·5	77·7	79·5	75·3	+0·3	67·5	71·5	72·[illegible]
	Darjeeling		22·967†	22·908	·059	22·938†	+·030		67·2	57·9	9·3	72·2	56·4	15·8	63·2†	65·3	62·1	+1·5	57·4	61·7†	63·[illegible]
Hill Stations, Central India.	Mount Abu		25·838	25·780	·058	25·807	−·054		72·4	66·3	6·1	79·2	62·6	16·6	68·8	70·3	68·8	+1·3	65·3	67·8	68·[illegible]
	Pachmarhi		26·232	26·160	·072	26·194	−·053		73·8	67·3	6·5	77·6	64·2	13·4	69·9	72·5	69·5	0	67·1	68·8	70·[illegible]
	Chikalda	2,642	·139	·063	·076	·099	−·041		72·7	65·7	7·0	77·8	63·4	14·4	68·6	71·2	68·1	+0·5	65·3	67·4§	69·[illegible]
Hill Stations, S. India.	Wellington		24·214	24·154	·060	24·184	+·008		71·9	57·5	14·4	76·8	51·7	25·1	68·3	67·1	63·5	+0·8	54·7	61·1	61·0
	Kodaikanal		22·813	22·749	·064	22·778			63·5	52·7	10·8	68·6	49·3	19·3	60·6	58·6	56·9		50·1	56·6	56·6
Extra India.	Aden		29·675	29·546	·129	29·608	+·018	·631	92·1	79·5	12·6	97·8	75·4	22·4	88·4	89·5	85·4	+0·6	74·0	78·8	76·8
	Perim		·583	·484	·099	·531	+·037	·661	93·9	84·7	9·2	98·3	77·2	21·1	90·9	91·5	88·7	−0·4	78·7	83·5	82·8
	Minicoy		·942	·879	·063	·906		·838	86·1			88·4			83·7	83·7				78·5	78·2
	Zanzibar		30·115‡	30·013	·102	30·064	+·010	30·063‡	81·2	73·2	8·0	83·9	71·6	12·3	76·7‡	80·5	77·1	+0·8	69·0	72·3‡	71·3
	Port Victoria (Seychelles).	15	·043	29·963	·080	·003	+·030	29·942	81·3	74·9	6·4	82·	73·9	8·4	80·0	80·9	78·0	−0·1	70·7	73·3	73·7
	Mauritius (Pamplemouses).	181				·037	+·009	30·168				83·2	48·3	34·9			67·9	−1·0			

† Mean of 29 days. ‡ Mean of 30 days. § Mean of 24 days. ‖ Mean of 25 days.

II—*concluded.*

Stations in India, Burma, etc., for August, 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Number of winds from																		
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
																									%	%						
·665	·626	·633	·641		84	48	49	60		4·7	7·2	6·0		3	11	8	1	2	4	19	8	6	N. 84° W.		29		116*				Periyakulam	South India.
·750	·763	·730	·748	−·004	88	61	50	66	− 7	5·5	7·8	6·7	+0·4	5			1	11	8	25	11	1	S. 32° W.	S. 57° W.	63	75	151	93			Salem.	
·639	·661	·657	·652	+·032	91	73	68	77	+ 1	8·8	8·4	8·6	0							21	32	9	S. 81° W.	S. 83° W.	87	87	287*	259			Chitaldroog.	
·614	·617	·602	·611	−·001	94	70	59	74	− 4	7·3	7·8	7·6	+1·0							22	38	2	S. 75° W.	S. 79° W.	92	90	281*	188			Bangalore.	
·604	·650	·649	·634	+·044	95	79	77	84	+ 4	9·0	9·0	9·0	+0·2							12	40	10	S. 89° W.	N. 87° W.	90	89	115*	106			Hassan.	
·667	·661	·699	·676	+·046	98	70	71	79	+ 4	9·5	9·0	9·3	+0·8							28	31	3	S. 71° W.	S. 84° W.	90	86	359*	333			Mysore.	
	·746	·825	·815	−·003		52	58	63	− 9	5·8	6·8	6·3	−0·3		1		4	6	3	11	30	7	S. 75° W.	S. 41° W.	58	60	197	166			Madras.	
·590	·570	·571	·577	−·081	69	49	44	54	− 9	9·1	8·8	9·0	+1·2	1						1	56	4	N. 88° W.	N. 87° W.	95	87	317*	263			Bellary.	
·742	·835	·855	·811		76	69	70	72		7·7	8·5	8·1								61	1		S. 46° W.		100		148				Waltair.	
·363	·406	·369	·379	−·005	63	36	27	42	− 3	1·4	2·7	2·1	+0·8	45					2	7	7	1	S. 64° W.	N. 80° W.	23	34	36*	76			Quetta.	Hill Stations, Baluchistan.
·247	·310	·313	·290	+·026	68	47	38	51	+ 3	4·1	4·9	4·5	−0·7		1	3	2		12	22	18	4	S. 56° W.	S. 69° W.	63	39	40‡	39			Leh.	Hill Stations, Northern India.
·553	·755	·858	·722	+·107	93	88	77	86	+ 9	3·6	4·3	4·0	0	19	2	1	1	11	7	3	9	9	S. 45° W.	N. 51° W.	18	5	76*	82			Srinagar.	
·253	·438	·373	·388	+·033	94	72	57	74	+ 6	7·3	7·6	7·5	+1·0		2			2	9	15	14	20	S. 83° W.	S. 76° W.	61	63	39	41	4·39	2·10	Kailang.	
·483‡	·543	·562	·528	0	92‡	90	92	91	0	9·9	9·7	9·8	+0·9	10	9	7	1	3	21	10	1		S.	N. 32° E.	26	22	84	81			Simla (Ridge).	
·513†	·551	·571	·545	+·004	98†	89	92	93	+ 1	9·3	9·1	9·2	+0·6	6	7		1	17	24	5	1	1	S. 14° E.	S. 75° W.	53	46	180	111			Chakrata.	
·548	·609	·627	·595	+·023	94	85	85	88	0	9·4	8·9	9·2	+0·5	26	3		5	2		12	7	6	S. 75° W.	S. 58° W.	21	25	60*	50			Ranikhet.	
·432	·541	·560	·528		97	90	88	92		9·2	8·5	8·9		2	2	2	3	33	3	4		13	S. 43° E.		37		180*				Muktesar.	
·663	·705	·735	·701	+·024	93	74	73	80	− 1	6·3	7·1	6·7	−0·4	1	1	2	21	3	2	5	23	4	S. 63° W.	N. 77° W.	8	5	20	18	7·85	1·17	Katmandu.	
·467	·538†	·566	·524	+·017	96	93†	90	93	− 2	7·2¶	6·9**	7·1	−1·8	4		28	8	7	1	5	2	5	N. 60° E.	S. 81° E.	45	26	70*	95			Darjeeling.	
·614	·673	·682	·656	+·047	95	95	92	94	+ 3	9·6	9·4	9·5	+1·0	1	7	5	1	4		39	2	3	S. 54° W.	S. 60° W.	49	73	243*	254			Mount Abu.	Hill Stations, Central India.
·655	·691	·705	·687	+·028	99	94	89	94	+ 4	9·8	9·2	9·5	+0·8	3	2	1	1			9	26	20	N. 77° W.	N. 84° W.	74	75	367*	206			Pachmarhi.	
·623	·661§	·693‖	·656	+·013	98	95§	92‖	95	+ 1	8·7	8·7	8·7	−0·2	25	13	1				2	5	16	N. 36° W.	N. 41° W.	47	74	276*	266	25·79	7·89	Chikalda.	
·403	·466	·477	·449	+·012	84	67	71	74	− 2	7·5	8·4	8·0	+0·4	9	1			1	7	32	5	7	S. 53° W.	S. 69° W.	64	51	97	88			Wellington	Hill Stations, S. India.
·327	·421	·440	·399		84	80	89	84		6·9	9·2	8·1		3			1	4	3		1	50	N. 48° W.		71		347				Kodaikanal.	
·766	·853	·754	·791	+·006	76	64	55	65	0	2·7	2·9	2·8	+1·0	3			5	5	25	24			S. 10° W.	S. 4° E.	74	70	?	262			Aden.	Extra India.
·907	1·057	1·015	·993	+·189	76	72	68	72	+14	0·8	0·8	0·8	−1·8			3	3		1	9	29	17	N. 81° W.	N. 49° W.	69	51	372*	333			Perim.	
	·906	·895				78	77			4·5	5·5	5·0			1					10	33	18	N. 83° W.		85		362*				Minicoy.	
·559	·735‡	·646	·680	−·022	80	80‡	62	74	− 4	6·4‡	5·8	6·1	+1·5			1	2	17	27	12	1	1	S. 6° E.	S. 9° E.	77	76	148*	168			Zanzibar.	
·699	·735	·739	·724	−·001	81	72	70	74	− 1	4·8	4·9	4·9	−1·5					54	7	1			S. 39° E.	S. 36° E.	95	92	329	323	1·12	0·42	Port Victoria (Seychelles).	
			·490					73	0																		240	298	1·79	1·15	Mauritius (Pamplemousses).	

¶ Mean of 26 days. ** Mean of 27 days. * Corrected.

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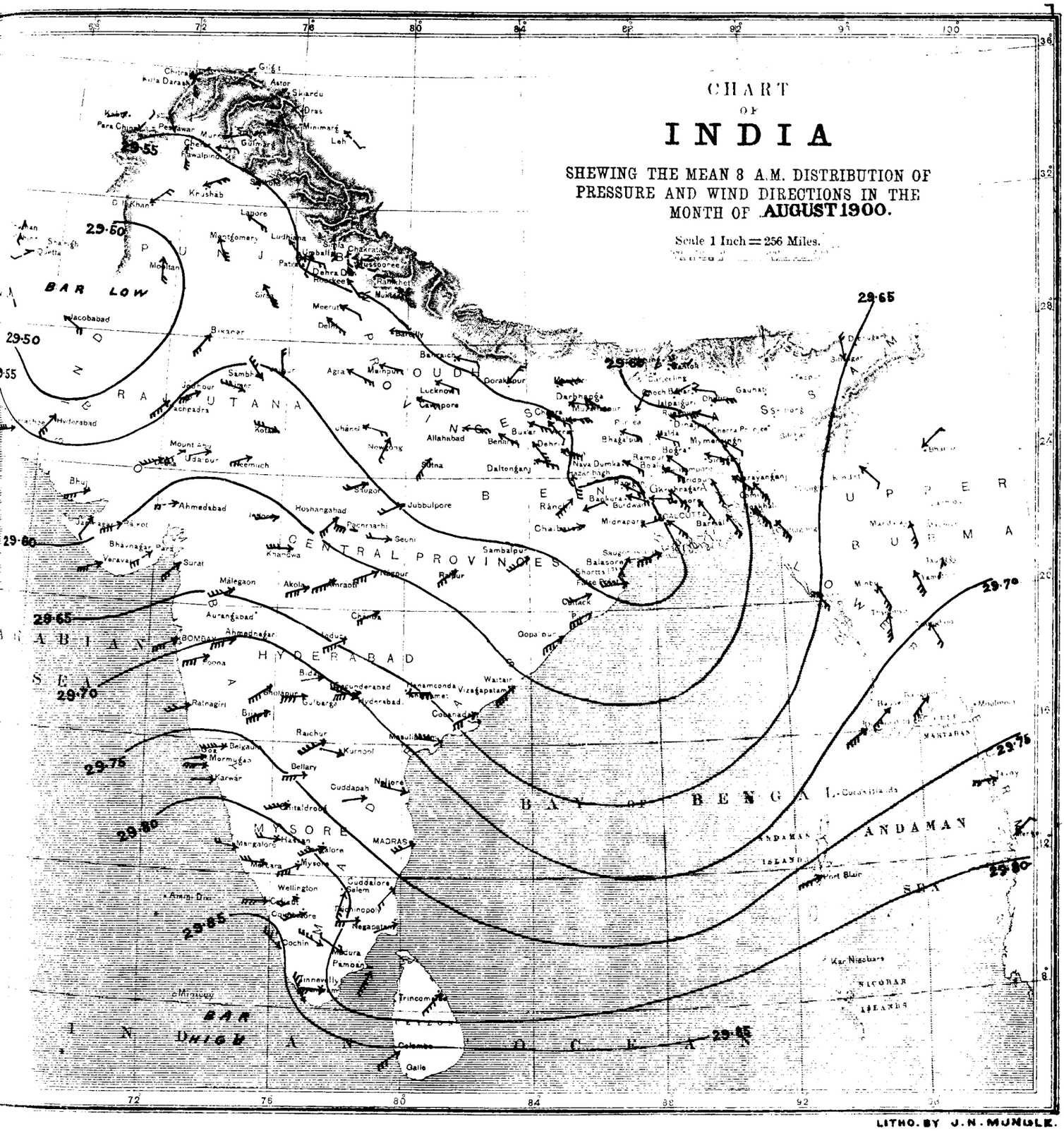


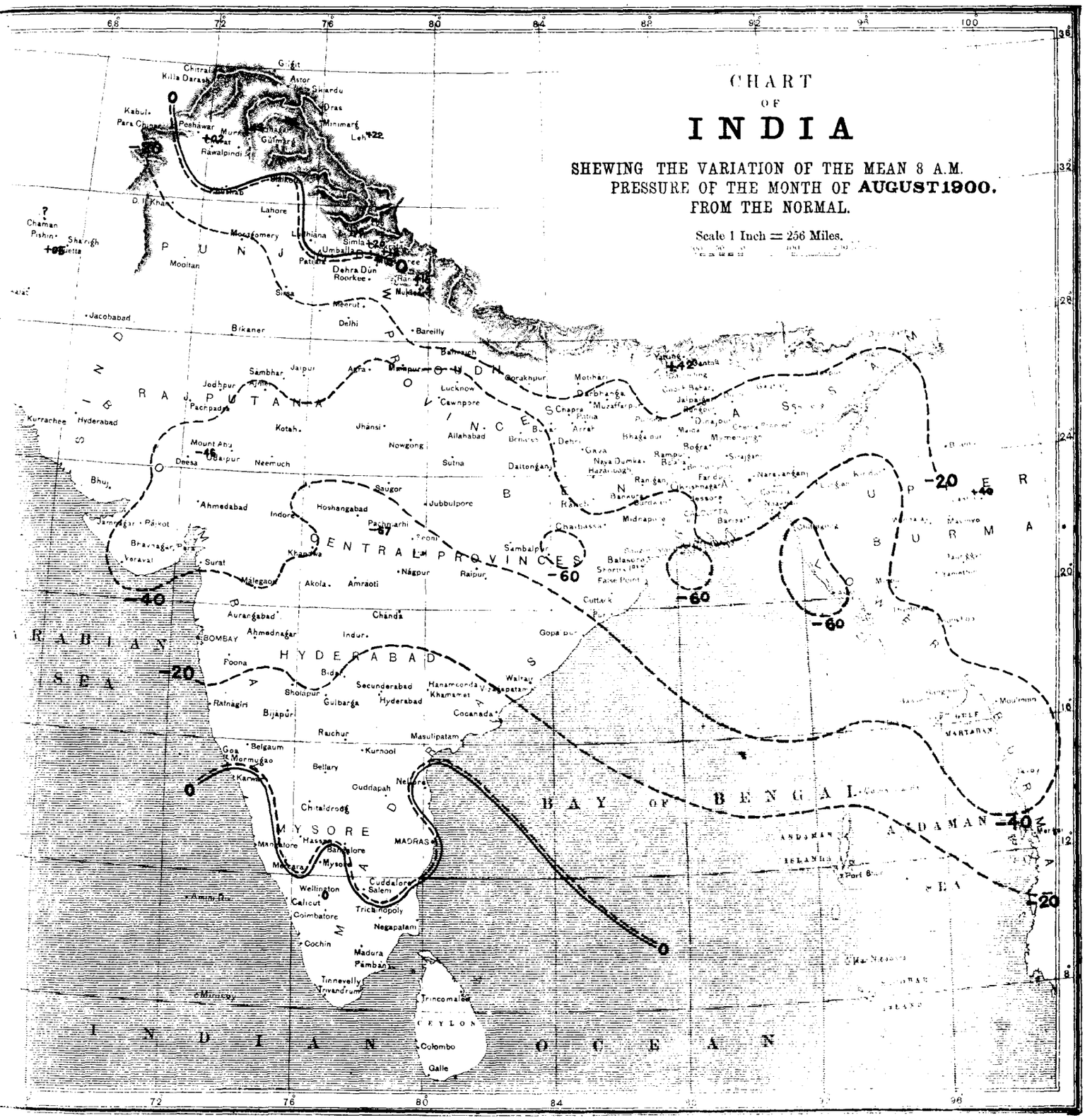
LITHO. BY J. N. MUNDLE.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric ...re 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 observations, and by comparison with the ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal ...d by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Depart- 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 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 ...'s formula applied to the winds as given in Table I of the 8 a.m. observations. The mean wind directions for the h... stations ...indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during ...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.

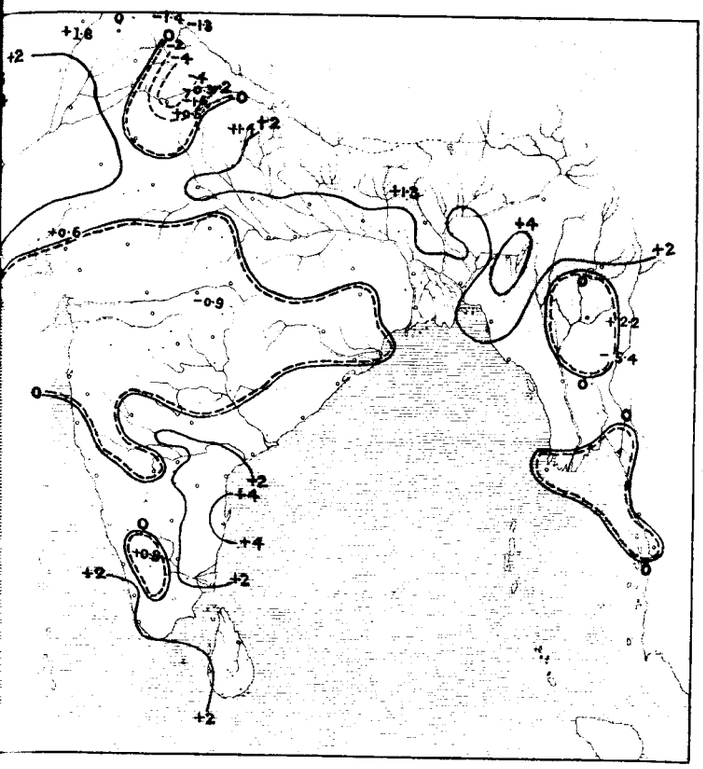
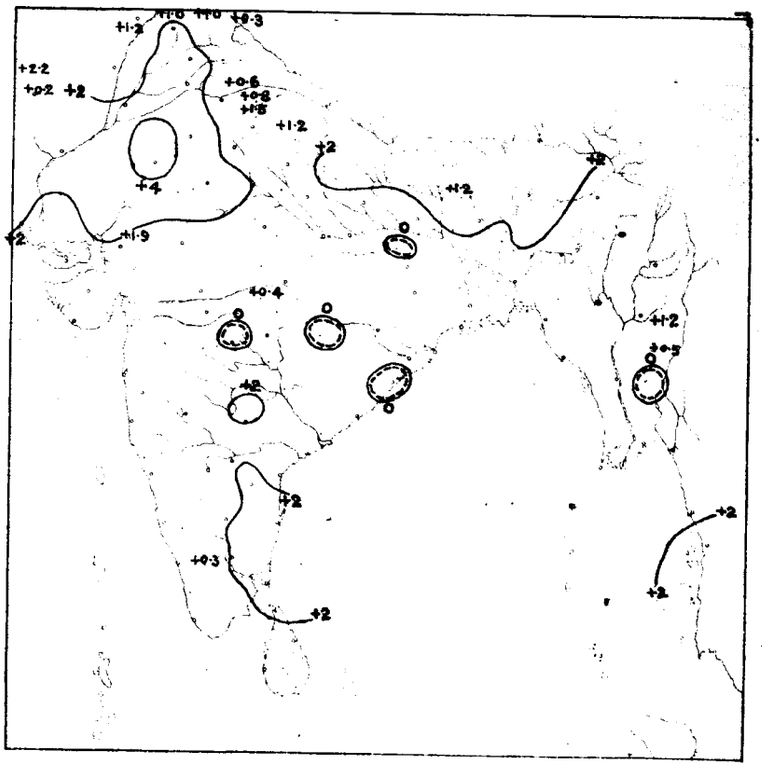


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

uous lines indicate that the mean maximum of month was in s by amounts indicated by the attached numbers. Broken or dotted that it was in defect by the amounts indicated by the attached ers. Double lines are the lines of no variation, the broken line facing ea 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 the amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

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

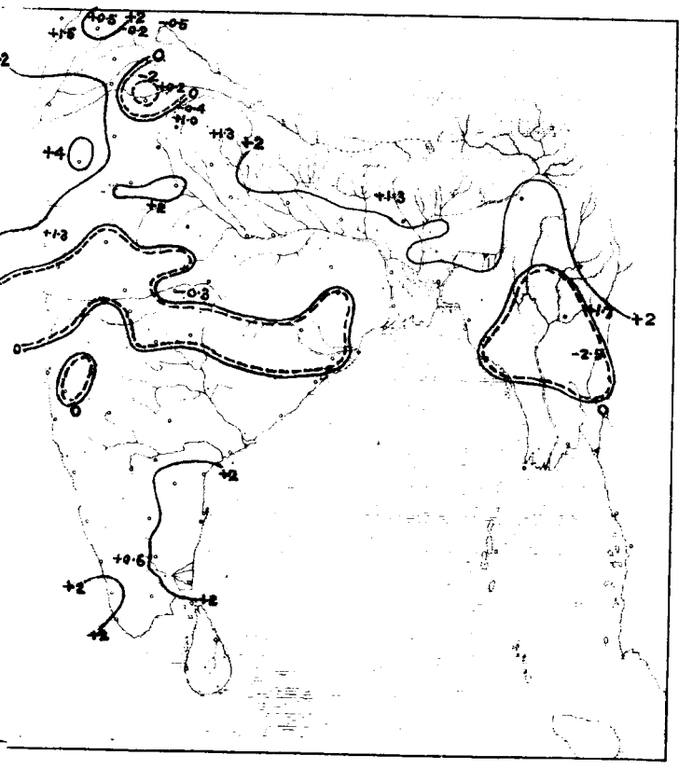
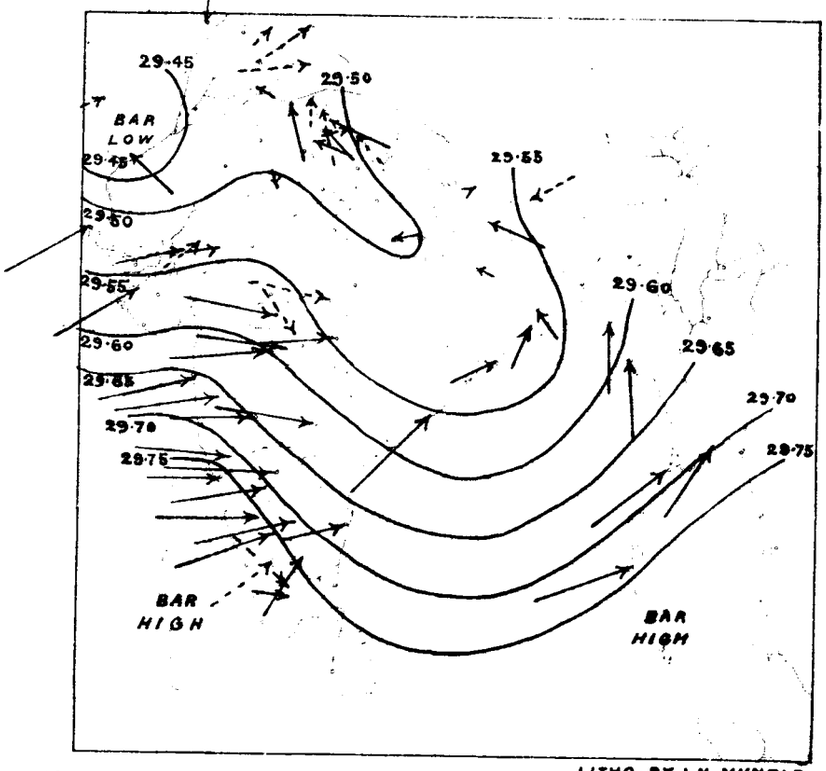


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF **AUGUST 1900.**



LITHO. BY J.N. MUNDLE.

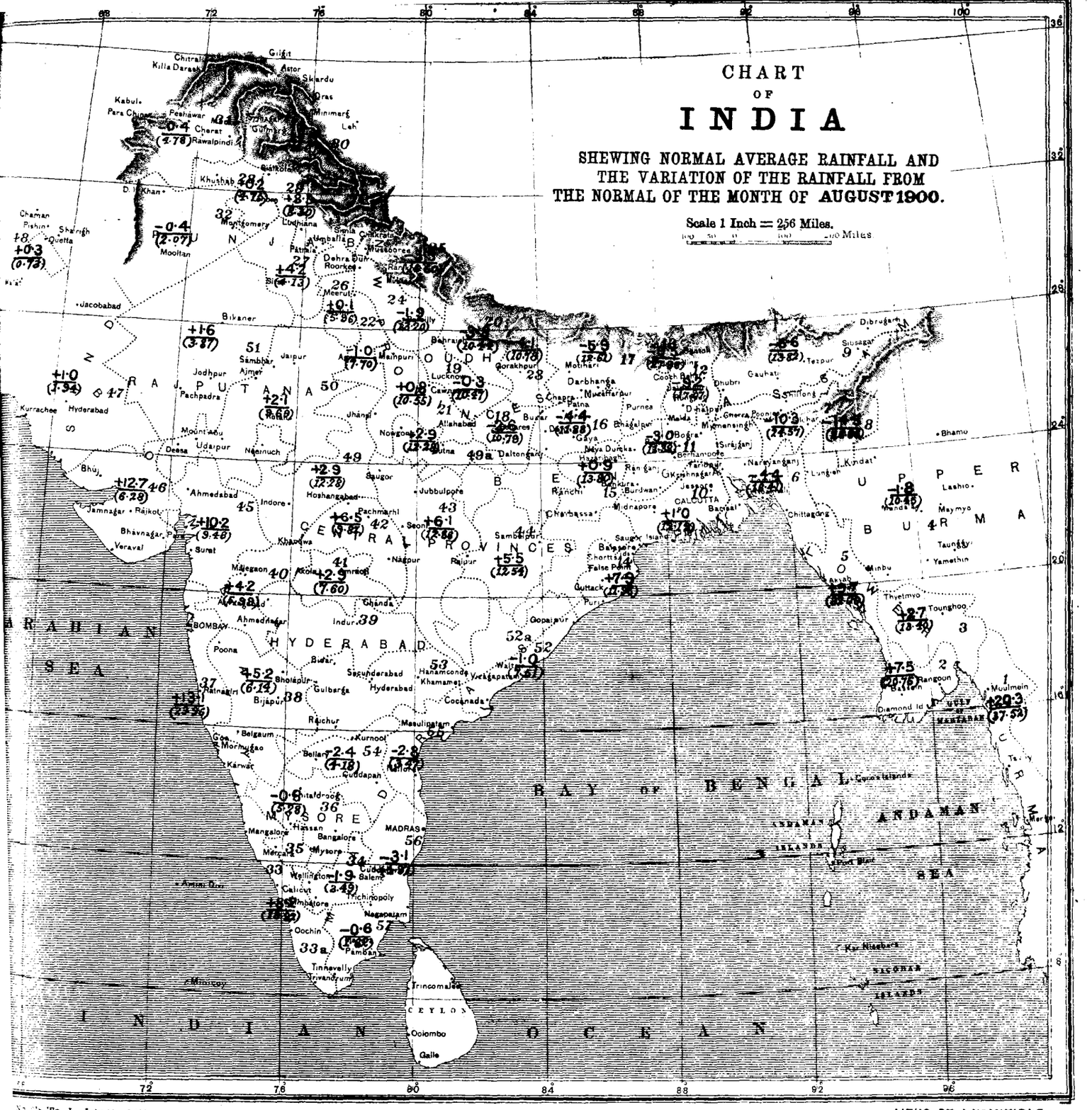
Explanation.

uous lines indicate that the mean daily temperature of month excess by amounts indicated by the attached numbers. Broken tted lines that it was in defect by the amounts indicated by the ed numbers. Double lines are the lines of no variation, the broken cing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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 8th of an inch being equal to 100 per cent.

Explanation.

[illegible] Chart shows the distribution of the rainfall of the month by means of isohyetic lines or lines of equal amounts of rain. The [illegible]sed in the preparation of this Chart are the rainfall returns of all the observatories in India (182 in number), except those at the [illegible]tions over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of [illegible] from those 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 variations of the rainfall of the month (to tenths of an inch) from the normal over the whole of India and Burma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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. North Western Provinces, East
19. South Oudh
20. North do.
21. North Western 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. North Punjab
32. West do.
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
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
52(a). Do. do. do. (a)
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 1900.

INTRODUCTION.

THIS review of the weather in India during the month of September 1900 is based on observations taken daily at 8 A.M. at 219 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, the weekly rainfall telegrams received during the month from District Officers throughout India, 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 September, 1900.

The principal meteorological features of the month of September in normal years are the retreat of the south-west monsoon from Upper India and the occasional occurrence of more or less severe cyclonic storms over the Bay of Bengal. The time of the withdrawal of the monsoon currents from Upper India apparently depends largely on the general strength of the monsoon during the whole period of its prevalence, but usually occurs during the third or fourth week of the month. The withdrawal from Central and Upper India of the Bombay and Bengal branches of the south-west monsoon air currents occurs fairly simultaneously and is followed by fine, dry weather in that region, but Bengal and Burma continue to receive moderate general rain from the Bay current, and the Konkan, Malabar, the Deccan and Southern India from the Arabian Sea current. As mentioned above, the cyclonic storms of this period are sometimes of considerable severity, and give heavy and general rainfall. Their course is, as a rule, west-north-west from the north of the Bay across the Orissa coast and the central parts of the country, and they are frequently remarkable for their long vitality, and for their tendency to recurve in the Central Provinces or Central India from west to north.

These normal conditions were departed from considerably during September 1900. The monsoon currents prevailed steadily until almost the end of the month and the rainfall was hence heavier than usual over nearly the whole country. This was more particularly the case with regard to the Bay monsoon which continued to blow into Upper India as late as the 25th. The cyclonic storms of the month also presented unusual features, more particularly the main cyclone of the second-half of the month which was remarkable on two grounds, *viz.*, the unusually long period during which it existed and the remarkable halt which it made over the east of the Central Provinces.

The following gives a brief account of the more

important features of the meteorology of the Indian region during the month:—

At the commencement of the month pressure was higher than usual over the greater part of the country. The only exceptions were parts of Orissa, Ganjam, the central portions of the country and the West Punjab where the pressure was normal or in trifling defect. The excess varied from 0·10″ to 0·15″ along the foot of the Central and Eastern Himalayas and over Upper Burma to about 0·05″ over the extreme south of the Peninsula and Ceylon. There was thus a more strongly marked band of low pressure than usual extending from the north-west of the Bay north-westward to the Punjab. Along this band a series of small depressions was passing and occasioning rain, more particularly in their particular neighbourhood. As a consequence the mean temperature was generally low within the band of low pressure noticed above, while it varied irregularly from the average in other parts of the country and was in large excess in the north, centre and west of the Punjab. This is shewn in the following table which gives the temperature variations from the normal for the 24 hours ending at 8 A.M. on the 1st:—

Province or Division	Variation from normal of		
	Mean maximum temperature, 1st Sept.	Mean minimum temperature, 1st Sept.	Mean daily temperature, 1st Sept.
	°	°	°
Burma	−0·8	−0·4	−0·6
Assam	−0·9	+0·2	−0·4
Bengal	+0·1	+0·7	+0·4
Orissa	+0·8	−1·4	−0·3
Bihar	−0·1	+0·6	+0·3
Chota Nagpur	+2·4	+1·4	+1·9
North-Western Provinces and Oudh	−2·3	+0·7	−0·8
Punjab	+4·7	+4·9	+4·8
Sind	−0·7	+1·6	+0·5
Rajputana	+1·3	+3·2	+2·3
Gujarat	+0·6	+0·5	+0·6
Central India	−6·1	−0·1	−3·1
Central Provinces	−1·4	−0·2	−0·8
Berar	+0·6	−0·1	+0·3
West Coast	+0·5	+0·9	+0·7
Bombay Deccan	+2·5	+0·4	+1·5
Mysore	+1·7	+0·2	+1·0
Madras Coast	+2·4	−0·1	+1·2
Madras Deccan	+5·5	+2·1	+3·8
South India	−0·1	+1·5	+0·7

These conditions lasted with slight modifications dependent on the unequal distribution of rainfall, until the morning of the 10th. During the whole of these nine days the trough of low pressure, extending roughly from the Punjab south-eastward to the north-west of the Bay, was uninterruptedly present, and along this trough there passed a number of slight depressions, travelling north-westward. These depressions were accompanied with more or less rain and the area of rainfall progressed north-westward with each succeeding depression. As at this time of year the changes of temperature are almost wholly determined by the rainfall conditions, the variations of the mean temperature from the normal differed considerably from day to day. This is shown by the following table which gives comparative temperature data from the 2nd to the 9th:—

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

During these eight days the rainfall, though fairly general, was generally light, except in the neighbourhood of the various depressions, where occasional heavy amounts were recorded. The following gives the dates and the stations

in the Daily Weather Report at which falls exceeding 3" in 24 hours were recorded during this period:—

STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
		Inches.
Udaipur	2nd September	4·17
Murree	" "	3·30
Akola	4th "	5·10
Amraoti	" "	3·39
Khandwa	5th "	4·87
Balasore	" "	3·14
Mount Abu	6th "	7·86
Darjeeling	7th "	7·39
Bahraich	" "	6·45
Mount Abu	" "	3·34
Bahraich	8th "	3·74
Sirsa	" "	3·88 ?

On the 10th an important change commenced. Barometric gradients began to increase over the south of the Peninsula and the south of the Bay, and this change was apparently accompanied with a strong advance of monsoon winds over the Bay. This extension of monsoon winds was first noticeable in the heavy rainfall of the Tenasserim and Burma stations. The following gives the rainfall at these stations from the 10th to the 14th:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MERGUI	Victoria Point	10th September	5·72
TAVOY	Thayetchaung	" "	3·92
	Yebyu	11th "	10·89
	Thayetchaung	" "	7·25
MERGUI	Mergui	" "	5·65
TAVOY	Tavoy	12th "	13·62
	Launglon	" "	9·25
	Yebyu	" "	6·28
	Thayetchaung	" "	5·37
MERGUI	Mergui	" "	4·82
TAVOY	Launglon	13th "	5·37
THATON	Bilin	" "	4·95
MERGUI	Mergui	" "	4·60
SANDOWAY	Gwa	" "	4·50
TAVOY	Tavoy	" "	4·48
THATON	Kyaikto	" "	4·11
SANDOWAY	Gwa	14th "	9·50
HENZADA	Lemyethna	" "	8·35
THATON	Thaton	" "	6·20
TAVOY	Tavoy	" "	6·17
AMHERST	Moulmein	" "	4·90
THATON	Bilin	" "	4·52

During these five days temperature over India varied irregularly from the normal according to the distribution of rainfall, the most marked features in the distribution at this period having been the large deficiency over parts of the North-Western Provinces, Rajputana and the East Punjab where heavy rain fell; and the steady moderate to considerable excess in Sind where the weather was rainless. The following gives comparative data for these regions:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	10th September.	11th September.	12th September.	13th September.	14th September.
	°	°	°	°	°
North-Western Provinces and Oudh.	−1·7	−1·8	−1·3	−0·1	−2·5
Rajputana	+0·8	+1·2	+0·4	−2·1	−3·7
East Punjab	−3·2	−1·3	−1·6	−5·1	−9·3
Sind	+2·8	+1·9	+2·3	+2·6	+3·6

On the 14th the advance of monsoon winds reached the head of the Bay and a depression, which formed the principal feature of the weather during the second half of the month, was developed in that area. The above depression passed from the head of the Bay westward through Orissa into the east of the Central Provinces between the 15th and the 17th, and on the 18th a second storm was shown at the head of the Bay. The second depression also passed westward and coalesced with the former storm on the 19th. Heavy rain had accompanied the development of these storms and a marked fall of temperature had taken place over Burma and North-East and Central India. The following gives comparative temperature data for this area from the 14th to the 19th:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	14th September.	15th September.	16th September.	17th September.	18th September.	19th September.
	°	°	°	°	°	°
Burma	−0·1	−0·8	−0·8	−1·8	−2·4	−4·5
Assam	+1·8	+3·8	+3·5	+2·1	−1·3	−0·4
Bengal	+2·9	+3·5	+1·9	−0·2	−1·3	−3·9
Orissa	+2·6	+2·0	−2·2	−2·9	−2·2	−2·6
Bihar	+2·9	+3·9	+2·6	+0·4	−0·5	−1·0
Chota Nagpur	+2·7	+2·8	+1·3	−1·0	−2·9	−4·1
Central India	−0·7	+0·2	+1·2	+1·5	+0·8	−1·0
Central Provinces	+1·7	+2·3	+1·6	+1·1	−0·2	−1·8
Berar	+3·3	+3·2	+3·6	+2·6	+2·0	−4·9

From the 19th to the 22nd the combined storm was practically stationary over the east of the Central Provinces and South-West Bengal. During this time steep

gradients for southerly winds prevailed on the eastern side of the storm and a flow of moist winds from the Bay into Lower Bengal took place and was accompanied with phenomenal rain over Deltaic Bengal. The most important of these falls are given below :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khulna	Kaliganj	19th September	10·30
	Morellganj	" "	10·25
	Bagerhat	" "	9·84
24-Parganas	Barasat	" "	9·74
Jessore	Bangaon	20th "	17·27
24-Parganas	Diamond Harbour	" "	16·73
	Alipore	" "	14·53
Howrah	Howrah	" "	14·05
Khulna	Rampal	" "	13·00
24-Parganas	Basirhat	" "	12·89
Hooghly	Serampore	" "	12·31
	Do.	21st "	16·65
24-Parganas	Dum-Dum	" "	11·34
	Alipore	" "	10·83
Howrah	Howrah	" "	10·13
24-Parganas	Canning Town	22nd "	6·50
Khulna	Dumuria	" "	5·20
24-Parganas	Dum-Dum	" "	5·15

This torrential rainfall was accompanied with a further fall of temperature over Burma and North-East and Central India. The following gives comparative data for this area from the 20th to the 22nd :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	20th September.	21st September.	22nd September.
	°	°	°
Burma	—5·0	—4·0	—1·5
Assam	—0·6	—0·8	0
Bengal	—6·3	—5·6	—5·4
Orissa	—2·6	—1·4	—0·6
Bihar	—5·7	—9·1	—5·5
Chota Nagpur	—7·0	—5·5	—5·8
Central India	—1·3	—3·1	—5·5
Central Provinces	—3·0	—4·0	—4·0
Berar	—2·1	—3·4	—3·8

On the 22nd the storm commenced to move. It travelled slowly through the Central Provinces during the 23rd, 24th, 25th and 26th, giving moderate to heavy rain to the central parts of the country and occasioning a brisk fall of temperature. This is shown below :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	23rd September.	24th September.	25th September.	26th September.
	°	°	°	°
Central Provinces	—3·0	—2·6	—2·9	—3·3
Central India	—3·0	—3·5	—2·9	—1·9
Berar	—1·9	—2·2	—3·0	—4·1

On the afternoon of the 26th the storm entered the North-Western Provinces, passed through those provinces during the 27th, and filled up in Bihar on the 28th. The storm occasioned heavy rain in Bihar, as is shown below :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Sonthal Parganas	Sahibganj	26th September	7·14
Purnea	Purnea	" "	5·10
	Forbesganj	27th "	5·40
Gaya	Arwal	" "	5·30
Muzaffarpur	Hajipur	28th "	8·18
Champaran	Motihari	" "	6·58
	Burhurwa	" "	6·47
	Bettiah	" "	6·20
Bhagalpur	Supaul	" "	5·62
Purnea	Purnea	" "	5·60
Muzaffarpur	Sitamarhi	" "	5·59
Saran	Amur	" "	5·50
	Chapra	" "	5·27
Champaran	Bagaha	" "	5·22
Muzaffarpur	Paru	" "	5·20
Purnea	Gondwara	" "	5·15

As a result of this rainfall there occurred a further fall of temperature over North-East India, while owing to the

clearing of the weather elsewhere, the temperature rose in Burma and Central India. The following gives temperature data for these regions for the 27th and 28th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF	
	27th September.	28th September.
	°	°
Assam	+1·0	+2·2
Bengal	−0·4	+0·7
Orissa	+0·3	−0·4
Bihar	−4·5	−5·5
Chota Nagpur	−0·1	−0·3
Burma	+1·7	+1·4
Central India	−2·9	−2·4
Central Provinces	−1·6	−1·0

On the 23rd, 24th and 25th there occurred a fall of snow on the North-West Himalayas and of rain over the plains of the North Punjab, and the weather was again disturbed in a similar manner and area on the 27th and 28th. These local disturbances were followed by rapid falls of temperature, and the heat over Baluchistan and the Punjab was much less than usual from about the 23rd to the end of the month. This is shown by the following table which gives temperature variation data for these two provinces for each alternate day from the 22nd to the 30th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	22nd September.	24th September.	26th September.	28th September.	30th September.
	°	°	°	°	°
Baluchistan	+4·5	−4·8	−5·6	−11·0	−7·0
Punjab	−3·4	−4·3	−1·9	−7·7	−5·1

Thus at the close of the month the mean temperature was low over nearly the whole of Northern and Central India, while it was high over Burma, Assam and the Peninsula. The following gives comparative temperature data for the 24 hours ending at 8 A.M. on the 30th :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF		
	Mean maximum temperature, 30th September.	Mean minimum temperature, 30th September.	Mean daily temperature 30th September.
	°	°	°
Burma	+1·9	+1·2	+1·6
Assam	+3·0	+2·5	+2·8
Bengal	+0·2	+0·5	+0·4
Orissa	−1·1	+0·6	−0·3
Bihar	−7·3	−3·7	−5·5
Chota Nagpur	−4·2	−1·2	−2·7
North-Western Provinces and Oudh	−4·6	−3·9	−4·3
Punjab	−6·5	−3·7	−5·1
Sind	+0·9	−1·2	−0·2
Rajputana	−3·8	−3·2	−3·5
Gujarat	−2·4	−2·2	−2·3
Central India	−3·7	−2·5	−3·1
Central Provinces	−1·5	−2·2	−1·9
Berar	+0·1	−1·6	−0·8
West Coast	+1·8	+1·3	+1·6
Bombay Deccan	0	−0·2	−0·1
Mysore	+3·7	+1·7	+2·7
Madras Coast	+3·1	+0·8	+2·0
Madras Deccan	+1·8	+1·4	+1·6
South India	+1·6	+1·8	+1·7

Pressure.—The mean pressure of the Indian land area for the month of September 1900 was 0·028″ higher than usual. Relatively to this general condition, pressure was in excess over Burma (except Tenasserim), Assam, Bengal, the North Gangetic Plain, the Punjab, Western Rajputana and part of Sind. The excess was greatest and more than 0·04″ over Upper Burma and Cachar. Pressure was, relatively to the general condition, in defect over the remainder of India including the Peninsula, Gujarat, Eastern Rajputana, Central India, the Central Provinces, the South Gangetic Plain, Chota Nagpur and Orissa and in Tenasserim. The deficiency was largest and more than 0·04″ in amount over parts of the Central Provinces. The monsoon band or trough of low pressure, running from the Punjab to the north-west angle of the Bay, was more strongly marked than usual.

The vertical pressure anomalies were generally small and not very important. They were generally slightly positive in the north and negative in the centre and south. The following table gives the mean pressure variations

and anomalies of the month for eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A.M. pressure of September 1900.	Pressure anomaly, September 1900.
	"	"
Burma Coast and Bay Islands	+·026	—·002
Burma Inland	+·057	+·029
Assam	+·060	+·032
Bengal and Orissa	+·039	+·011
Gangetic Plain and Chota Nagpur	+·031	+·003
Upper Sub-Himalayas	+·050	+·022
Indus Valley and North-West Rajputana	+·038	+·010
East Rajputana, Central India and Gujarat	+·019	—·009
Deccan	+·008	—·020
West Coast	+·026	—·002
South India	+·019	—·009

Temperature.—The variations of the mean temperature conditions of the month from the normal were determined mainly by the heavy and long continued rainfall.

The mean maximum or day temperature of the month was generally in excess over the region of rather scanty rainfall over North Bombay and part of the Peninsula. The variations from the normal were, however, generally small, except in Upper Sind and in Khandesh and the Bombay Deccan where they exceeded +2°. The day temperature on the mean of the month was also in excess over Tenasserim, Lower Burma, Arakan, Assam and North Bengal, but the variations were small. Over the remainder of India the mean maximum temperature was below the normal. Over the east of the Punjab the variations exceeded —6°, over the west of the North-Western Provinces and the adjoining parts of Central India and Rajputana —4°, and over other parts of North-West India —3°.

The day temperatures were at no time throughout the month exceptionally high, but comparatively warm periods were recorded on the 1st and 2nd in the West Punjab and the Deccan, on the 8th and 9th in the West Punjab, on the 11th in the West Punjab, the centre and west of the Peninsula and Burma, on the 15th in Bengal, between the 16th and the 22nd in the Punjab and centre and west of the Peninsula and on the 25th and 26th in Sind.

The mean minimum or night temperature was above the normal over the greater part of the country. It was, however, in defect of the normal over the Gangetic Plain, the submontane and eastern regions of the North-Western Provinces, Bengal, Ganjam, Assam and part of Burma. The deficiency was generally small. Over the remainder of India the night temperature was higher than usual, but the excess was small except in the extreme north-west. It was greatest at Jacobabad (+4°·7), Peshawar (+4°·3), Rawalpindi (+4°·2), and Mooltan (+3°·6).

The mean temperature of the month was in excess of the normal over the Indus Valley, Gujarat, the greater part of the Peninsula, Tenasserim, Lower Burma and Assam. The excess was greatest in the Indus Valley (Jacobabad +3°·5), and the Bombay Deccan (Sholapur +2°·2 and Bijapur +2°·2). Over the whole of the remainder of India the mean temperature of the month was lower than usual. The deficiency was considerable in Bihar (Patna —2°·5), the west of the North-Western Provinces (Roorkee —2°·6) and the East Punjab (Delhi —3°·7). The following gives variation data for the eleven meteorological provinces :—

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, September 1900.	Mean minimum temperature, September 1900.	Mean daily temperature, September 1900.
	°	°	°
Burma Coast and Bay Islands	+0·9	+0·3	+0·6
Burma Inland	—0·9	—0·6	—0·7
Assam	+1·0	—0·1	+0·4
Bengal and Orissa	—0·8	—0·2	—0·5
Gangetic Plain and Chota Nagpur	—2·7	—0·4	—1·6
Upper Sub-Himalayas	—4·6	+0·9	—1·9
Indus Valley and North-West Rajputana	—0·3	+2·9	+1·3
East Rajputana, Central India and Gujarat.	—2·0	+1·2	—0·4
Deccan	—0·6	+0·8	+0·1
West Coast	+0·4	+1·0	+0·7
South India	—0·1	+0·6	+0·2

Winds.—The Bay of Bengal monsoon current was generally stronger than usual on the mean of the month. The direction of the current was more westerly than usual over the southern part of the Bay and at the Bay Islands. On the other hand, in Orissa and Chota Nagpur as well as over the Gangetic Plain and as far as the Punjab there was an unusual amount of easting in the wind direction. The force was generally stronger than usual. In the extreme north-west of India, in Sind and Rajputana, the wind was unsteady and lighter than usual.

Over the Peninsula the wind conditions with regard to the direction of the prevailing movement, were very nearly normal, except on the Madras Coast where there was considerably increased westing, as was noticed in the case of the winds over the centre and south of the Bay. The winds in this region were, however, almost everywhere exceptionally strong and steady. In the South-East Trades region the variations of the wind direction from the normal were irregular. Thus at Zanzibar the wind blew from S2°W instead of S8°E, while at the Seychelles the actual mean direction was 10° more easterly than the normal.

Humidity.—The mean humidity conditions of the month were nearly normal over Bengal, Orissa, Chota Nagpur and Bihar, but in the North-Western Provinces the air was considerably, and in the Punjab and Rajputana very largely, damper than usual, while in Burma, on the contrary, the air on the mean of the month was drier than the average. The area over which the air, relatively to the normal, was dampest included the west of the North-Western Provinces (Meerut + 13°/₀) the Central Punjab (Lahore + 20°/₀) and the east of Rajputana (Jaipur + 13°/₀).

In the Peninsula the variations from the normal were smaller than over Northern India. Over the Deccan and the West Coast the air was drier than usual (Sholapur — 5°/₀ and Bellary —7°/₀) but over the Central Provinces and Berar, as well as in Mysore, the Madras Coast and South India the relative humidity exceeded the normal. The following table gives variation data of the mean aqueous vapour pressure and mean humidity of nine meteorological provinces :—

Meteorological Province.	Mean Absolute Humidity.		Mean Relative Humidity.	
	Average actual, September 1900.	Variation of actual from normal, September 1900.	Average actual, September 1900.	Variation of actual from normal, September 1900.
	"	"	%	
Burma Coast and Bay Islands	·900	+·013	85	− 2
Bengal and Orissa	·935	—·006	86	0
Gangetic Plain and Chota Nagpur	·849	—·009	83	+ 2
Upper Sub-Himalayas	·812	+·073	81	+12
Indus Valley and North-West Rajputana	·817	+·109	65	+ 4
East Rajputana, Central India and Gujarat	·810	+·107	76	+11
Deccan	·725	+·021	78	+ 1
West Coast	·852	+·011	83	− 3
South India	·683	+·027	74	+ 2

Cloud.—The cloud amount was normal or below the normal over part of Burma, the Indus Valley and along the West Coast, the deficiency, relatively to the average, having been largest at Rangoon (—0·8) and Akyab (—0·8) in the east and at Bombay (—0·8) in the west. Over the remainder of India the cloud amount was in excess. The excess was small or slight over the Peninsula, but was moderate to large over Northern India and was greatest over the East Punjab (Ludhiana +2·6) and the east of Rajputana (Jaipur +3·0), where, it will be remembered, the humidity was also in greatest excess. The following table gives variation data of the mean cloud amount of nine meteorological provinces :—

Meteorological Province.	Mean cloud amount.	
	Average actual, September 1900.	Variation of actual from normal, September 1900.
Burma Coast and Bay Islands	7·5	0
Bengal and Orissa	7·8	+0·7
Gangetic Plain and Chota Nagpur	7·7	+1·5
Upper Sub-Himalayas	5·8	+2·4
Indus Valley and North-West Rajputana	2·3	+0·3
East Rajputana, Central India and Gujarat	6·4	+2·0
Deccan	7·7	+0·8
West Coast	6·1	−0·5
South India	8·0	+1·0

Rainfall.—The general rainfall of India for the month of September was in considerable to large excess. The Bay current was vigorous and continued to blow steadily till nearly the close of the month. The rainfall was, however, somewhat unevenly distributed, thus a portion of the Bay current was determined towards Tenasserim and Lower Burma and those areas received excessive rain apparently at the cost of Upper Burma, Assam and a large part of Bengal. On the other hand, under the influence of the storms of the month, the Bay current was drawn towards the Gangetic plain and Upper India with the result that West Bengal, the North-Western Provinces and the Punjab received very excessive rainfall. The most remarkable feature of the month's rainfall was,

however, the excessive rain which occurred over Deltaic Bengal between the 18th and 22nd, when torrential rain fell under the influence of the principal storm of the month. The Bombay or Arabian Sea monsoon was less vigorous than the Bay monsoon, and the interior and north of the Bombay Presidency received less than the usual rainfall during the month. On the other hand, over the central parts of the country and Rajputana, where the monsoon current came under the influence of the cyclonic storms from the Bay or of the trough of low pressure, the current parted more freely with its moisture, and these regions received more than the usual rainfall. The average actual rainfall of the month exceeded 29 inches in Tenasserim and Deltaic Bengal, while it was less than 2″ in amount in the West Punjab, Sind and Baluchistan.

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

Meteorological Province.	Rainfall.			
	Mean actual for September 1900.	Mean normal for September	Variation of actual from normal, September 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	23·44	21·76	+2·83*	+ 13
Burma Inland	6·82	8·02	−1·20	− 15
Assam	6·55	13·31	−6·76	− 51
Bengal and Orissa	16·20	11·25	+4·95	+ 44
Gangetic Plain and Chota Nagpur	11·05	7·49	+3·33*	+ 44
Upper Sub-Himalayas	10·09	5·07	+5·05*	+100
Indus Valley and North-West Rajputana.	1·65	0·89	+0·76	+ 85
East Rajputana, Central India and Gujarat.	5·97	4·92	+1·03*	+ 2
Deccan	9·14	7·61	+1·49*	+ 20
West Coast	8·91	9·30	−0·39	− 4
South India	5·26	4·35	+1·00*	+ 23

* A reference to Table I will show that the means in 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.

Atmospheric Pressure.

The mean pressure of the Indian land area for the month of September 1900 was 0·028″ higher than usual, and was hence 0·010″ lower than in September 1899, when the mean of the whole area was 0·038″ above the normal.

Pressure was, relatively to this general condition, in excess, or the pressure anomalies were positive, over Burma (except Tenasserim), Assam, Bengal, the North Gangetic plain, the Punjab, Western Rajputana and part of Sind, as well as locally at a few stations in the west and south of the Peninsula. The positive anomalies were more than 0·020″ in amount at the submontane stations of Northern India as well as over East Bengal and Central Burma, and were more than 0·040″ in Upper Burma and in Cachar. The anomalies equalled or exceeded 0·030″ at the stations for which data are given below :—

Station.		Variation from normal of mean 8 A.M. pressure of September 1900.	Pressure anomaly, September 1900.
		″	″
Punjab	Sialkot	+·066	+·038
	Khushab	+·063	+·035
	Umballa	+·063	+·035
N.-W. Provinces and Oudh.	Gorakhpur	+·058	+·030
Bengal	Purnea	+·064	+·036
	Jalpaiguri	+·063	+·035
	Mymensingh	+·060	+·032
	Narayanganj	+·059	+·031
Assam	Silchar	+·069	+·041
	Sibsagar	+·060	+·032
Burma	Bhamo	+·076	+·048
	Mandalay	+·069	+·041
	Minbu	+·061	+·033

Pressure was, relatively to the general condition, in defect over the remainder of India including the Peninsula, Gujarat, Eastern Rajputana, Central India, the Central Provinces, the South Gangetic plain, Chota Nagpur and Orissa, and also in Tenasserim. The negative anomalies were large over the central districts of the Central

Provinces, and were more than 0·020″ at the stations for which comparative data are given below :—

STATION.	Variation from normal of mean 8 A.M. pressure of September 1900.	Pressure anomaly, September 1900.
	″	″
Chanda	—·017	—·045
Nagpur	—·016	—·044
Raipur	—·010	—·038
Seoni	—·010	—·038
Saugor	—·008	—·036
Sutna	+·001	—·027
Hoshangabad	+·006	—·022
Nowgong	+·007	—·021
Secunderabad	+·007	—·021
Gopalpur	+·007	—·021

The diminished pressure over the Circars and the Central Provinces was directly related to the paths of the cyclonic storms of the month.

The actual distribution of pressure showed that on the mean of the month the highest pressures were reported from the south of the Bay and the lowest from the Western Desert. From the Punjab a broad band of relatively low pressure extended south-eastward as far as the north-west of the Bay and within this broad band and covering Ganjam, Orissa, South-West Bengal and the east of the Central Provinces there lay a well defined low pressure area, and it was only within this low pressure area that the actual mean pressure of the month was below the normal and here only by very small amounts.

The variations of the mean pressure of the month from the normal at the hill stations differed little from those at the neighbouring plains stations, and the vertical pressure anomalies were hence generally small and of little importance. The following gives data for ten pairs of stations :—

HILL STATION.	Variation of actual from normal pressure, September 1900.	PLAIN STATION.	Variation of actual from normal pressure, September 1900.	Vertical pressure anomaly, (Hill-Plain).
	″		″	″
Leh	+·040	Lahore	+·054	—·014
Quetta	+·034	Jacobabad	+·023	+·011
Murree	+·053	Peshawar	+·040	+·013
Simla	+·054	Ludhiana	+·036	+·018
Chakrata	+·054	Roorkee	+·054	0
Ranikhet	+·055	Bareilly	+·054	+·001
Darjeeling	+·057	Dhubri	+·050	+·007
Mount Abu	+·001	Deesa	+·020	—·019
Pachmarhi	—·016	Seoni	—·010	—·006
Wellington	+·021	Coimbatore	+·025	—·004

The preceding data show that the vertical pressure anomalies were slightly negative in the case of central and southern hill stations and positive at the northern hill stations.

Barometric depressions and cyclonic storms of the month.

The mean pressure of the Indian area was higher than usual during the month of September, but the monsoon trough of low pressure lay far to the southward and extended well over the Bay. The latter conditions were favorable for the production of cyclonic storms, but the Arabian Sea monsoon current was weak and failed to feed into the storms after they had passed inland, so that during the first-half of the month the storms, which were formed, failed to develop but remained shallow and unimportant. After the 15th a storm devoloped at the head of the Bay and formed a very important feature in the weather for several days thereafter.

At the commencement of the month pressure was in slight to moderate excess of the normal in the extreme north and the extreme south of the Indian region, while a broad band of relatively low pressure extended from the South-East Punjab south-eastward to Ganjam and the north-west of the Bay. Within this band there were two small depressions, one lying near Chaibassa in Chota-Nagpur, the other in Bundelkhand near Jhansi. These two depressions apparently broke up, and two fresh depressions developed one of which was shown over Ganjam and Orissa and the other over the Central Provinces. These depressions subsequently coalesced and the combined

depression travelled westward through the Central Provinces.

Shallow depression of the 3rd to the 5th:— The barometer was giving way slightly at some central stations, while it was rising elsewhere. The shallow depressions noticed on the previous day had coalesced and were shown as one shallow depression over the Central Provinces where, however, pressure was only slightly below the normal. The following gives data for the storm area:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches.	
Gopalpur	29·673	+·024	+·012	SSW	11	8	0·33	Sea rough.
Puri	·687	+·048	...	SW	7	10	3·95	Overcast.
Cuttack	·686	+·062	+·028	SSE	2	8	0·46	Showery.
False Point	·693	+·062	+·030	SSE	14	9	0·16	Showery.
Balasore	·725	+·043	+·080	ESE	5	5	0·90	
Chaibassa	·704	+·043	+·053	ENE	2	9	0·05	
Sambalpur	·676	+·022	—·017	ESE	2	10	0·70	Showery.
Raipur	·643	+·004	—·026	NE	10	6	0·26	
Chanda	·697	—·015	—·031	WSW	6	10	0·03	
Nagpur	·660	—·023	—·030	WNW	7	9	...	
Seoni	·668	—·007	—·008	NNE	3	7	0·03	
Jubbulpore	·656	+·005	—·016	ENE	4	8	1·76	Distant lightning.
Hoshangabad	·694	—·024	+·009	SW	16	10	0·05	
Saugor	·693	+·010	+·014	NE	1	7	0·14	
Sutna	·670	+·026	+·024	E	6	5	0·02	
Nowgong	·683	+·027	+·025	E	1	10	0·03	Showery.
Allahabad	·702	+·031	+·062	ENE	12	8	...	
Jhansi	·696	+·025	+·033	NE	2	7	1·62	
Cawnpore	·698	+·027	+·086	E	3	10	...	
Agra	·692	+·014	+·053	SE	5	4	...	

The above data show that the storm was a very shallow, unimportant depression with a feeble surrounding cyclonic circulation and light to moderate general rain.

September 4th.—The barometer had fallen slightly to briskly over the west of the Central Provinces, while it had risen elsewhere, the recovery having been brisk over the east of the Peninsula. The following gives data for the storm area:—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches.	
Nagpur	29·685	+·025	—·013	W	6	10	0·23	
Akola	·726	—·001	+·006	WSW	12	8	5·10	
Amraoti	·727	+·004	+·012	WSW	13	10	3·39	Showery.
Seoni	·699	+·031	+·013	NNE	3	8	0·17	Raining.
Jubbulpore	·687	+·031	+·009	SE	2	7	0·63	Distant lightning.
Saugor	·699	+·006	+·019	NE	3	6	0·67	
Hoshangabad	·642	—·052	—·042	SE	12	8	0·12	
Khandwa	·695	—·026	—·021	NW	12	10	2·55	Raining.
Indore	·716	—·003	+·006	Calm	1	10	0·80	Distant lightning.

The above table shows that the storm had advanced west-north-westward through the Central Provinces and was central near Hoshangabad. Pressure was normal within the storm area and more or less in excess of the average in all other places. Barometric gradients around the storm were slight and the cyclonic circulation of the winds was both light and irregular. The rainfall was fairly general around the storm, but except in the south-west quadrant the amounts were not large.

September 5th.—The depression had recurved in its path and was moving northwards towards the central divisions of the North-Western Provinces. The depression was filling up and, as will be seen from the following table which gives data for the storm area, had become very shallow:—

Station.	Pressure.			Wind		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Sutna	29·696	—·004	+·041	SE	4	2	0·04	
Nowgong	·694	—·015	+·028	W	2	7	1·15	Continuous rain.
Jhansi	·705	—·025	+·034	Calm	3	8	0·17	Showery.
Allahabad	·701	—·027	+·054	E	7	1	0·21	Thunder storm.
Benares	·699	—·025	+·053	ESE	3	3	0·17	
Buxar	·723	—·031	+·066	E	4	5	...	
Mainpuri	·698	—·034	+·079	E	3	4	...	
Cawnpore	·705	—·021	+·090	Calm	2	10	...	

The preceding data show that a brisk to rapid recovery had occurred over the Central Provinces and a slight fall over the North-Western Provinces. Pressure was everywhere above the normal, and the storm was only faintly indicated. The winds were light and irregular and the only rainfall of importance was reported from the stations to the south-west of the storm. By the following day, the 6th, the depression had wholly filled up.

Between the 6th and the 11th ordinary monsoon conditions prevailed throughout India with exceptionally well distributed rainfall and pressure generally slightly above the normal. On the 12th a local barometric rise occurred over the Punjab and a local fall over the west of the North-Western Provinces, with the result that a depression was developed over the latter region :—

Shallow barometric depression of the 12th to the 14th.—On the 11th the barometer was changing slightly everywhere. Pressure was highest in the extreme south and lowest in the West Punjab, while a well defined trough of relatively low pressure extended from the south-east of the Punjab to the north-west of the Bay.

On the 12th the barometer was rising briskly over the Punjab and was falling briskly over the west of the North-Western Provinces, and a shallow depression was shown lying over the west of the North-Western Provinces and the adjacent districts of the Punjab. This depression was determining heavy rain to the districts over which it lay of which the following were the principal amounts :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
FEROZEPORE	Moga	12th September.	4·93
PATIALA STATE	Gujran	" "	3·42
JULLUNDUR	Nakodar	" "	3·05
KANGRA	Palampur	" "	2·60
HOSHIARPUR	Sadr station	" "	2·58
FEROZEPORE	Zira	" "	2·55
NABHA STATE	Dadahur	" "	2·40
HOSHIARPUR	Hoshiarpur	" "	2·02
LUDHIANA	Jagraon	" "	2·02
MAINPURI	Mainpuri	" "	1·80

September 13th.—On the 13th the barometer was falling briskly in the east of Rajputana and the depression had extended somewhat in that direction. Heavy rain continued to fall in the neighbourhood of the storm, the heaviest falls having been as follows :—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 13th September.
		Inches.
ALWAR	Lachmangarh	8·37
JODHPUR	Jetaran	8·00
ALWAR	Rajgarh	7·75
BHARATPUR	Akhegarh	7·50
ROHTAK	Jhajjar	6·95
GURGAON	Nuh	5·45
JODHPUR	Merta	5·05
ALWAR	Kathunmar	5·00
JODHPUR	Bilara	4·34
ALWAR	Ramgarh	4·00
ETAWAH	Etawah	3·87
AJMER MERWARA	Ajmer	3·60
BHARATPUR	Kaman	3·51
ALWAR	Govindgarh	3·50
DELHI	Sonepat	3·49
AJMER MERWARA	Jassakhera	3·10
ALWAR	Alwar	3·08
DELHI	Delhi	3·05
KARNAL	Karnal	3·05
ALWAR	Tijara	3·05
GURGAON	Firozpur	3·02

September 14th.—The shallow depression in the north-west continued to be shown. The winds in its neighbourhood were very irregular and the depression of the barometer in the centre was only 0·059″, but the storm continued to determine very heavy rain to the South-East Punjab and the adjacent districts, as is shown below :—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 14th September.
		Inches.
DELHI	Mahrauli	7·00
GURGAON	Gurgaon	7·00
GURGAON	Farukhnagar	6·50
DELHI	Delhi	6·10
ROHTAK	Sampla	6·00
MEERUT	Ghaziabad (Dup)	5·80

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 14th September.
		Inches.
Delhi	Ballabgarh	5·68
Gurgaon	Sohna	5·30
Meerut	Hapur (Dup)	5·22
Gurgaon	Punahana	5·04
Aligarh	Atrauli	4·90
Meerut	Hapur	4·87
Hardoi	Bilgram	4·75
Meerut	Meerut	4·65
Bulandshahr	Sikandrabad	4·53
Mainpuri	Gopalpur	4·50
Meerut	Mawana	4·36
Meerut	Ghaziabad	4·30
Muttra	Chata	4·28
Bulandshahr	Bulandshahr	4·15
Meerut	Sardhana	4·10

By the following morning, the 15th, the depression had practically filled up and the rainfall had ceased to a great extent.

Cyclonic storm of the 12th to the 27th.—In the mean time while the depression in the north-west was still in existence a storm was forming over the Bay. On the 11th the pressure gradients began to increase over the south of the Bay and an increase of the monsoon current in that region was in progress, so that heavy rain had fallen in Tenasserim, Mergui reporting 5½" and Tavoy nearly 4". At the same time pressure was very uniform over the centre and north of the Bay, and the observations of the next morning showed that a large shallow depression had been developed over the centre of the Bay, extending from the mid-Madras to the South Arakan coasts. To the south of this depression a strong monsoon was blowing and heavy rain continued to fall over the Tenasserim Peninsula, Tavoy reporting 13·10" of rain and Mergui 4·82". At the same time the indraught to the depression had occasioned light northerly winds over the north of the Bay and Bengal, and rain had practically ceased over North-East India. The following gives marine data for 8 A.M. on the 12th :—

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. *Chusan*	5 50	85 01	29·733	SW	7	Overcast. 4 A.M. frequent heavy squalls.
S.S. *Aries*	6 20	81 08	·764	WSW	6	Heavy rain squalls.
S.S. *Dalmatia*	8 02	82 37	·760	SW	4	Following sea.
S.S. *Okhla*	8 24	88 32	·805	SW	6	Heavy squalls of wind and rain.
S.S. *Venus*	10 23	82 45	...	SW	4	4 A.M. light showers.
S.S. *Shahjehan*	12 20	93 35	·693	WSW	7	High sea and hard squalls.
S.S. *Elleric*	12 39	84 24	·663	Var.	2	Heavy rain.
S.S. *Hillcrag*	14 04	92 54	·645	SW	5	4 P.M. rainy.
S S. *Langbank*	14 53	81 30*	·690	Var.	3	
S-S. *Matin*	15 31	85 55	·607	Var.	4	Smooth sea and fine. 4 A.M. heavy rain squalls.
S.S. *Madura*	19 39	89 32	·600	NW	2	Fine.
S.S. *Dragoman*	20 00	87 17	·664	NNE	2	Smooth sea and fine.
S.S. *Umkusi*	20 19	87 55	·652	Var.	2	Slight swell and fine.
S.S. *Kohinur*	20 30	87 17	·528	NE	2	Smooth sea and fine.
S.S. *Kasara*	Saugor Island		·559	Var.	2	Smooth sea and fine.
S.S. *Karagola*	Chittagong		·622	...	...	8 P.M. overcast.

* Noon position.

The above shows that the *Shahjehan*, the *Chusan*, the *Okhla* and the *Aries* in the southern half of the Bay were all experiencing strong south-west and west-south-west winds with squalls and rain while the *Langbank*, the *Elleric* and *Matin* in the centre of the Bay had variable winds, but also heavy rain. In the north of the Bay the winds were light from north-east. The above shows that a strong monsoon was blowing over the south of the Bay with steepish barometric gradients, that in the centre there existed an area of uniform pressures and variable winds and in the north light north-east winds.

September 13th.—On the 13th pressure was generally steady over the Bay but the depression over the centre had apparently concentrated slightly and moved slowly northward. The depression area now extended across the Bay from the neighbourhood of Vizagapatam to the neighbourhood of Akyab. At the latter station pressure

was about 0·087″ below the normal. The following gives 8 A.M. data for the Bay for this date :—

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *City of Calcutta.*	8 43	82 50	29·743	WSW	4	Moderate south-west sea and overcast. 4 P.M squally with passing showers.
S.S. *Caspian* .	11 13	84 02	...	NW	5	Fierce squalls and heavy rain.
S.S. *Virawa* .	11 17	95 24	·725	SW	6	High sea and overcast. Noon occasional rain squalls.
S.S. *Dalmatia* .	11 19	84 14	·700	W	5	Moderate sea and showery.
S.S. *Shahjehan*.	Port Blair		·713	...	...	8 P.M. overcast.
S.S. *Hillcrag* .	13 02	91 00	·625	SW	7	Heavy squalls.
S.S. *Golconda* .	Madras		·724	...	...	8 P.M. overcast.
S.S. *Langbank*.	Madras		·660	SW	...	
S.S. *Elleric* .	15 37	85 17	·543	Var.	2	Smooth sea and heavy rain.
S.S. *Maharani*	Rangoon		·833	...	...	4 P.M. squally with heavy showers of rain.
S.S. *Matin* .	19 08	87 08	·667	NE	3	Smooth sea and fine.
S.S. *Rajpootana*	20 15	89 06	...	ENE	2	Following sea and fine.
S.S. *Karagola* .	Akyab		·633	NE	2	Fine.
S.S. *Maharaja*.	Chittagong		·662	...	...	8 P.M. overcast and vivid lightning.

The preceding data show no important change; strong south-west monsoon winds with heavy squalls and rain prevailed over the southern half of the Bay, and heavy rain while continuing in Tenasserim had extended northward into Lower Burma. The *Elleric* which had advanced northward nearly 200 miles still reported variable winds and heavy rain, having advanced northward at about the same rate as the area of depression. The general force of the wind over the Bay, which had been 4·1 on the 12th, had risen to 4·5 on the 13th.

September 14th.—The observations of the 14th showed that the barometer had risen over nearly the whole of the Bay but had fallen slightly in the north and over Bengal. The depression had continued to move northward and was shown as a shallow depression overlying the head of the Bay and Lower Bengal. The following gives 8 A.M. observations for this day 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.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Akyab . .	29 672	+·016	—·075	NW	3	10	2·52	
Chittagong .	·628	—·043	—·108	E	3	10	0·04	
Barisal . .	·640	—·032	—·061	Calm	3	5	...	
Jessore . .	·641	—·026	—·059	Calm	1	8	0·02	
Calcutta .	·642	—·030	—·037	NW	3	7	0·27	Showery.
Saugor Island	·630	—·028	—·041	NNE	6	7	...	Sea smooth.
Balasore .	·663	—·026	+·009	NW	1	6	...	
False Point .	·645	—·021	—·017	WNW	3	9	...	Wind variable.
Cuttack . .	·658	—·002	—·002	WSW	1	6	...	
Puri . .	·666	+·008	...	NNW	2	4	...	
Gopalpur .	·674	+·017	+·009	NNW	5	0	...	

The above shows that pressure was lowest near Chittagong and that the winds exhibited a slight indraught towards a centre near that station. The force of the wind was low and there was very little rainfall over North-East India.

The following gives the marine data for 8 A.M. of this date :—

Name of Vessel	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Clan Ferguson*	9 00	80 52	29·921	SW	5	Moderate sea and fine.
S.S. *Argus* . .	9 02	81 43	...	SW	4	Cloudy.
S.S. *Haddon Hall*	9 07	82 59	·756	W by S	4	Moderate westerly high sea and cloudy.
S.S. *Hillcrag* .	11 40	89 31	·675	SW	5	Cloudy, 4 P.M heavy rain squalls.
S.S. *City of Calcutta*	12 42	84 50	·708	SW	3	Slight S.-W sea and fine. Noon heavy rain squalls.
S.S. *Virawa* .	13 31	94 04	·744	SW	6	Continuous rain squalls.
S.S. *Shahjehan* .	13 55	93 16	·703	WSW	6	Rough sea and passing showers.
S.S. *Dalmatia* .	14 53	85 33	·680	WNW	5	Beam sea and heavy rain squalls.
S.S. *Caspian* .	14 58	85 30	...	NNW	5	Cross sea and heavy rain squalls.
S.S. *Golconda* .	15 02	82 15	·734	SW	2	Occasional rain squalls.
S.S. *Scharlachberger*	15 11	82 49	·718	N	2	

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by the Calcutta Office.	Wind Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Maharani* .	16 28	96 50	29·871	WSW	3	Slight sea and dull and rainy. 4 P.M. heavy rain squalls.
S.S. *Rajpootana* .	17 44	92 03	...	SE	2	Showery, 4 P.M. heavy rain squalls.
S.S. *Elleric* . .	18 36	86 12	·603	N	2	Smooth sea and rainy.
S.S. *Foreric* . .	19 45	87 20	·650	WNW	2	
S.S. *Karagola* .	19 52	93 00	·649	NE	...	Heavy continuous rain.
S.S. *Maharaja* .	20 55	88 16	·604	Var.	2	Overcast 4 A.M. raining.
S.S. *Shahzada* .	Hooghly river.		·524	...	...	Fine.

The preceding data show that more or less light variable winds prevailed over the north of the Bay to the north of Lat. 16°N but that rain had extended to most parts of this area. To the south of Lat. 16°N. no change had occurred, monsoon gradients remained moderately steep and dull, rainy, squally weather was reported from nearly all ships while heavy rain continued to fall over Tenasserim and Lower Burma.

The preceding summary has shown that up to the morning of the 14th the depression was of small importance with pressure in only moderate defect in the centre. The only important features connected with the depression were its northerly movement and the strong monsoon and heavy rainfall on its southern side.

September 15th.—The barometric changes continued slight but pressure had given way slightly over Bengal and the west of the Bay. The following gives 8 A.M. data for the stations within the storm area :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Waltair .	29·648	—·038	—·024	W	9	6	...	Sea smooth.
Gopalpur .	·662	—·012	—·006	N	10	10	0·16	
Puri . .	·641	—·025	...	NW	6	8	1·33	
Cuttack .	·636	—·022	—·027	WSW	3	10	1·43	

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
False Point .	·631	—·014	—·036	W	5	10	2·50	Thunder storm.
Balasore .	·632	—·031	—·027	Calm	1	7	...	
Saugor Island	·599	—·031	?—·077	NE	4	9	0·10	Thunder storm.
Barisal . .	·632	—·008	—·074	ESE	2	5	0·02	
Chittagong .	·669	+·041	—·072	SSE	6	10	0·21	Showery.
Calcutta .	·623	—·019	—·062	SE	2	9	...	
Jessore . .	·621	—·020	—·084	SSE	1	4	...	
Chaibassa .	·634	—·019	—·026	Calm	1	7	0·39	Showery.
Midnapore .	·625	—·021	—·064	N	1	2	...	
Burdwan .	·619	—·021	—·077	NW	2	0	...	
Bankura .	·596	—·028	...	Calm	1	7	0·38	Thunder and lightning.
Raniganj .	·620	—·025	...	Calm	1	4	0·23	
Hazaribagh .	·656	—·012	—·014	NE	5	10	0·13	Showery.
Gaya . .	·644	—·027	—·029	Calm	3	2	...	
Krishnagar .	·628	—·020	...	SE	3	3	0·04	Thunder and lightning.
Berhampore .	·618	—·031	—·079	Calm	1	2	...	
Narayanganj .	·638	—·004	—·074	SSE	3	9	0·03	
Sirajganj .	·604	—·039	—·102	Calm	0	2	...	
Bogra . .	·628	—·019	—·073	...	...	0	...	
Mymensingh .	·636	—·022	—·085	Calm	0	6	...	
Dinajpur .	·621	—·035	—·085	ENE	2	1	...	
Rungpur .	·634	—·026	—·080	ENE	2	0	...	
Jalpaiguri .	·660	—·025	—·071	NNE	0	0	...	
Purnea . .	·647	—·022	—·053	NNE	3	0	...	
Darbhanga .	·638	—·018	—·060	Calm	1	0	...	
Patna . .	·651	—·026	—·037	Calm	1	0	...	
Muzaffarpur .	·655	—·025	...	Calm	0	0	...	

The preceding information shows that a largish shallow low pressure area overlay Bengal and the north and north-west of the Bay. It also showed that the lowest pressure was reported from Saugor Island so that, if on the preceding day the centre lay near Chittagong, the depression was moving westward. The winds were irregularly cyclonic around the head of the Bay, but were only strong on the Orissa coast where heavyish rain had commenced. The centre of the storm was thus apparently in Lat. 21° 10′ N. and Long. 88° 15′ E.

The following gives marine data for 8 A.M. on this day:—

Name of Vessel.	8 A.M. Position. Lat. N.		Long. E.		Barometer as corrected by Calcutta Office.	Wind Direction.	Wind Force.	Weather.
	°	′	°	′	″			
S.S. *Hillcrag*	10	23	87	42	29·725	WSW	6	Heavy rain squalls.
S.S. *Argus*	12	13	80	31	...	SW	2	Smooth sea and cloudy.
S.S. *Haddon Hall.*	13	17	84	48	·688	WSW	4	Moderate sea and overcast.
S.S. *Patna*	14	41	81	17	...	NE	6	Fine. 4 A.M., occasional heavy rain.
S.S. *Rajpootana*	15	24	94	19	...	S	5	Moderate sea and cloudy. 4 A.M. rain squalls.
S.S. *Virawa*	15	37	92	03	·697	SW by S	...	Heavy rain squalls.
S.S. *Hambleton*	15	47	94	08	...	SW	4	Heavy rain.
S.S. *Karagola*	16	25	93	46	·663	S	4	Heavy S. swell and overcast. 4 A.M. frequent heavy rain squalls.
S.S. *City of Calcutta.*	16	54	86	30	·663	W	3	Slight swell and heavy continuous rain.
S.S. *Foreric*	17	02	86	17	·650	WSW	4	Cloudy.
S.S. *Shahjehan*	17	06	91	05	·623	W	5	Moderate sea, and slight rain.
S.S. *Golconda*	18	05	85	20	·665	WSW	2	Southerly swell and cloudy. 8 P.M. heavy rain.
S.S. *Scharlachberger.*	18	10	85	34	·668	W	2 to 3	
S.S. *Dalmatia*	18	22	86	53	·580	WNW	4	Heavy rain squalls.
S.S. *Caspian*	18	31	86	50	...	W by N	...	Squalls of hurricane force and heavy rain.
S.S. *Avala*	20	03	87	50*	·658	Var.	4	
S.S. *Baron Fairlie.*	20	18	87	40*	·590	Var.	2	4 P.M. overcast.
S.S. *Shahzada*	21	12	90	31	·558	E	3	Slight sea and dull and rainy.
S.S. *Elleric*	21	20	87	44	·523	NNE	4	Heavy rain.

* Noon position.

The wind had shifted to the southward off the Burma coast and to west off the Ganjam coast, but otherwise there had not been much change. The mean force of the wind over the Bay was 4·0. Rainy, squally weather prevailed generally.

September 16th.—The storm had moved westward and was approaching the Orissa coast between False Point and Balasore. The barometer had fallen briskly on the Orissa coast and the depression of the barometer at False Point amounted to 0·123″. The following gives 8 A.M data for the storm area 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. Variation from normal.	Wind Direction at 8 A.M.	Wind Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Barisal	29·662	+·030	—·047	SSE	3	10	0·95	
Calcutta	·599	—·024	—·087	E	2	8	0·40	Showery.
Jessore	·633	+·012	—·076	ESE	2	10	0·08	
Krishnagar.	·623	—·005	...	ESE	3	6	0·02	Thunder and lightning.
Midnapore.	·597	—·028	—·095	N	2	4	0·62	
Burdwan	·617	—·002	—·078	E	2	10	1·00	Thunderstorm.
Saugor Island.	·565	—·034	—·114	NE	8	7	2·26	Showery.
Balasore	·591	—·041	—·071	NNE	2	9	0·47	
False Point	·544	—·087	—·123	NW	10	10	2·68	Continuous rain.
Cuttack	·588	—·048	—·076	Calm	1	9	0·77	
Puri	·592	—·049	...	NNW	12	10	0·13	
Gopalpur	·611	—·051	—·058	Calm	4	10	0·16	

The preceding data show that the barometer had continued to rise over the greater part of the Bay but had fallen over the Orissa and Ganjam coast districts. The winds around the storm were more regularly cyclonic and the force of the wind had continued to increase at False Point. Heavy rain had commenced in Orissa and Deltaic Bengal, the following being the heaviest amounts:—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 16th September.
		Inches.
CUTTACK	Dharmsala	5·55
BANKURA	Onda	4·12
CUTTACK	False Point	2·68
BALASORE	Chandbali	2·56
KHULNA	Tala	2·30
24-PARGANAS	Saugor Island	2·26
HOOGHLY	Serampore	2·22
BALASORE	Akhyapada	2·07

The centre of the storm was apparently in Lat. 21° 10′ N. and Long. 87° E.

The following gives marine information for the Bay at 8 A.M. on 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. *Ceylon*	11 04	84 05	29·728	SW	3	Cloudy. 4 A.M. occasional showers.
S.S. *Foreric*	13 43	85 01	·740	SW	5	Rough head sea, and cloudy.
S.S. *Arratoon Apcar.*	13 53	93 46	·776	SW	5	Passing showers; 4 P.M. strong squalls.
S.S. *Karagola*	Rangoon		·798	...	...	4 A.M. overcast.
S.S. *Patna*	Cocanada		...	NW	4	
S.S. *Haddon Hall.*	17 31	86 37	·575	W by S	5	Rainy.
S.S. *Avala*	17 33	86 47	·628	SW	6	Head sea.
S.S. *Baron Fairlie.*	17 45	85 55	·590	W	4	Noon squally with heavy showers.
S.S. *Hambleton*	18 11	91 08	...	SW	5	High south-west sea and heavy rain.
S.S. *Virawa*	18 14	90 17	·680	SW	6	Moderate sea, and squally.
S.S. *Gaekwar*	20 17	87 55*	...	SE	4	
S.S. *Shahjehan*	20 18	88 36	·533	SE	4	Fine. 4 P.M. slight rain squalls.
S.S. *Scharlachberger.*	Intermediate L.V.*		...	NE	4	
S.S. *Caspian*	21 26	87 54	...	Var.	...	Moderate sea and heavy rain squalls.
S.S. *Golconda*	21 32	87 40	·595	E by N	4	Cloudy. Noon rain squalls.
S.S. *Kasara*	Diamond Harbour.*		·542	...	...	4 P.M. squally.
S.S. *Onda*	Calcutta		·648	...	...	4 P.M. cloudy.

* Noon position.

Ordinary south-westerly monsoon winds with squalls and rain continued over the Bay as far north as Lat. 18° N. but to the northward of that Latitude the winds exhibited a well marked indraught to the storm centre and the *Gaekwar*, *Scharlachberger*, *Golconda* and *Shahjehan* reported south-east to north-east moderate winds with a good deal of rain.

September 17th.—The depression had continued to advance westward. 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.	Variation from normal.	Wind Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Gopalpur	29·539	—·072	—·132	WSW	9	8	1·45	Showery.
Puri	·535	—·057	...	SW	13	7	1·33	
Cuttack	·525	—·063	—·138	SW	2	10	3·24	Continuous rain.
False Point	·538	—·006	—·126	SW	9	10	1·67	
Balasore	·520	—·071	—·140	Calm	3	9	0·66	
Saugor Island.	·543	—·022	—·134	SSE	17	10	0·63	Showery.
Calcutta	·601	+·002	—·084	E	8	10	0·14	Do.
Midnapore	·561	—·036	—·128	NE	5	4	0·50	
Burdwan	·615	—·002	—·080	ENE	7	10	0·11	Showery.
Bankura	·566	—·027	...	NE.	6	9	0·52	
Chaibassa	·542	—·063	—·126	E	2	9	0·29	Showery.
Ranchi	·585	—·056	—·104	NE	14	10	0·63	Do.
Sambalpur	·549	—·075	—·139	NNW	7	10	1·21	Do.
Raipur	·623	—·058	—·061	WNW	9	10	5·41	Raining.

The preceding information shows that pressure was falling right across the head of the Peninsula The fall had been greatest over Orissa, South-West Bengal, Ganjam and the east of the Central Provinces, and the storm had advanced into this region and was apparently central in Lat. 21° 10′ N. and Long. 86° E. The depression of the barometer at the centre was apparently about 0·150″. A well defined cyclonic circulation of the wind prevailed around the central area and rain had been general over North-East India. The heaviest rainfall was reported from Orissa and the east of the Central Provinces where the following were the principal amounts :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 17th September.
		Inches.
Raipur	Raipur	5·41
Cuttack	Jajpur	4·87
Raipur	Dhamtari	4·72
Cuttack	Cuttack	3·96
Balasore	Akhyapada	3·35
Ditto	Chandbali	3·31
Cuttack	Dharmsala	2·90
Balasore	Bhadrak	2·57
Cuttack	Salipur	2·40
Ditto	Jagatsingpur	2·13
Sambalpur	Bargarh	2·05
Raipur	Drug	2·04

South-westerly strong winds prevailed throughout the Bay, and the mean force of the wind for the whole Bay had risen to 4·9 which was 1·2 above the normal. The following gives marine data for 8 A.M. on 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. *Foreric*	10 34	83 35	29·860	SW	5	Rough head sea and cloudy.
S.S. *Inchkeitle*	12 19	84 58	·734	SW	5	Passing rain squalls.
S.S. *Avala*	14 57	85 33	·758	W	6	Terrific squalls of wind and rain.
S.S. *Baron Fairlie.*	15 04	84 41	·690	SW by S	5	High head sea. Noon torrents of rain.
S.S. *Ceylon*	15 33	86 05	·670	SW	5	Squally. Noon light rain.
S.S. *Arratoon Apcar.*	17 00	91 05	·706	SW	6	Rough beam sea and heavy squalls.
S.S. *Gaekwar*	18 17	87 17	...	SW	6	4 A.M. squally.
S.S. *Virawa*	20 36	88 23	·657	SSW	6	Rough sea and frequent rain squalls.
S.S. *Madura*	21 01	88 13	·520	...	...	4 P.M. heavy rain squalls.
S.S. *Hambleton*	Mutlah		...	SW	6	High sea and heavy rain.
S.S. *Matiana*	Saugor Island		·549	...	...	Noon continuous rain and hard squalls.
S.S. *Haddon Hall.*	21 28	87 59	·555	SW	4	Squally. 4 A.M. frequent rain squalls.
S.S. *Kasara*	21 36	90 27	·583	E	2	Slight south-west swell. Noon frequent rain squalls
S.S. *Onda*	Mud Point		·518	...	...	8 P.M. frequent rain squalls.
S.S. *Shahzada*	Chittagong		·616	...	...	Midnight very heavy rain squalls.

It will be noticed that the vessels at the Sandheads reported continuous heavy rain.

September 18th.—Pressure had decreased almost everywhere. The fall had been brisk in two regions, one covering Deltaic Bengal and the north of the Bay, the other the east and centre of the Central Provinces. The depression which had been traced from the head of the Bay into the Central Provinces had continued to advance westward and was central in Lat. 21° 10′ N. and Long. 84° E. At the same time a second small depression had appeared over the extreme north of the Bay and was apparently central in Lat. 21° 10′ N. and Long. 88° E. Of this second depression the only indication exhibited by the observations of the preceding day was the heavy continuous rain at the Sandheads. The following gives 8 A.M. data for the 18th:—

Station.	Pressure. 8 A.M., reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Cocanada	29·624	—·034	—·058	W	8	10	0·21	
Masulipatam	·686	—·024	—·029	WNW	11	9	...	Distant lightning.
Waltair	·570	—·048	—·097	W	18	10	0·01	Sea smooth.
Gopalpur	·513	—·026	—·160	SSW	20	6	0·02	Strong wind.
Puri	·503	—·032	...	W	14	7	0·09	Gloomy.
Cuttack	·504	—·021	—·159	Calm	2	10	1·88	Continuous rain.
False Point	·507	—·031	—·158	WNW	9	10	1·96	Continuous rain.
Balasore	·526	+·006	—·134	Calm	1	10	0·40	
Saugor Island	·490	—·053	—·188	ESE	7	10	2·61	Showery.
Barisal	·597	—·069	—·111	SSE	5	10	2·45	Heavy rain.
Calcutta	·519	—·082	—·166	E	6	10	0·40	Showery.
Jessore	·568	—·077	—·140	SE	2	10	0·62	
Krishnagar	·568	—·066	...	E	7	10	0·70	Overcast with rain.
Berhampore	·598	—·035	—·098	E	7	10	0·25	Showery.
Burdwan	·548	—·067	—·146	ENE	7	10	0·15	Showery.
Midnapore	·515	—·046	—·175	N	4	10	0·37	Gloomy.
Bankura	·531	—·035	...	NE	5	10	0·13	Drizzling.
Hazaribagh	·605	—·001	—·095	ENE	16	10	0·34	Drizzling.
Ranchi	·570	—·015	—·118	NE	15	10	0·66	Showery.
Chaibassa	·524	—·018	—·149	NE	2	7	0·60	Showery.
Sambalpur	·488	—·061	—·206	ENE	6	10	2·00	Drizzling.
Raipur	·520	—·103	—·154	NW	8	10	1·75	Raining.
Chanda	·641	—·067	—·096	W	4	10	4·06	Raining.
Nagpur	·603	—·064	—·101	WNW	11	10	0·37	
Seoni	·606	—·072	—·091	NNE	5	10	0·93	
Jubbulpore	·597	—·055	—·103	ENE	4	8	1·66	Showery.

The above shows that pressure was decreasing generally; that a large shallow low pressure area covered Deltaic Bengal, the north of the Bay, Orissa, Ganjam and the east of the Central Provinces, within which lay two small centres of depression; that around this low pressure area well defined cyclonic winds were blowing and that rain was falling generally all over North-East India and the central parts of the country. The depression of the barometer within the small centre in the Central Provinces amounted to 0·20″ and within that near Saugor Island to 0·188″.

The following gives marine data for 8 A.M., on 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. *Argus*	15	33	81	56	...	SW	5	Following sea and cloudy.
S.S. *Inchkeitle*	16	01	86	21	29·605	SW	6	Heavy south-west sea and passing squalls.
S.S. *Gaekwar*	16	03	86	42	...	SSW	7	High head sea.
S.S. *Madura*	18	13	91	25	·576	SSW	6	High sea. Noon rain squalls.
S.S. *Patna*	19	06	84	42	...	WSW	4	Moderate following sea and cloudy.
S.S. *Matiana*	19	28	86	34	·470	SW	6	Heavy rain squalls.
S.S. *Arratoon Apcar.*	19	32	89	05	·500	S	5	Rough beam sea and heavy rain squalls.
S.S. *Yanariva*	20	00	87	48*	·500	WSW	7	Heavy head sea.
S.S. *Onda*	20	10	89	01	·478	SW by W	6	High confused sea and heavy rain squalls.
S.S. *Ceylon*	20	11	88	12	·495	SW	5	High south-west sea. 4 A.M. frequent rain squalls.
S.S. *Shahzada*	20	43	91	35	·620	SE	5	Rough sea and squally. 4 P.M. fierce rain squalls.
S.S. *Plympton*	20	50	88	03	...	Var.	6	Head sea and heavy rain.
S.S. *Chanda*	Calcutta				·531	...	...	4 P.M., heavy rain and thick dirty cyclonic weather.

* Noon position.

South-westerly winds prevailed over the greater part of the Bay, but the *Shahzada* off the Arakan coast reported a south-east wind and the *Plympton* within the small depression had variable winds and heavy rain. The mean force of the wind over the Bay was 5·3 which was 1·6 above the normal.

September 19th.—The storm shown over the north of the Bay had moved westward and had coalesced with that over the Central Provinces, the centre of the combined storm lying apparently near Sambalpur, so that apparently there had been no movement during the preceding 24 hours. The centre of the storm was apparently in Lat. 21°10′ N. and Long. 84° E. The following gives 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.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Cocanada	29·628	+·004	—·055	SW	13	10	0·11	Sea rough.
Waltair	·542	—·028	—·130	SW	31	10		Severe gale.
Gopalpur	·499	—·014	—·179	SW	36	6		Strong wind.
Masulipatam	·704	+·018	—·012	WNW	13	10		Gale.
Puri	·501	—·002	...	SW	27	7		Sea very rough.
Cuttack	·500	—·004	—·161	SW	3	10	0·19	
False Point	·509	+·002	—·154	SW	18	10	0·82	Gale.
Balasore	·514	—·012	—·147?	Calm	1	8	1·44	Showery.
Saugor Island.	·522	+·032	—·157	SW	13	10	5·16	Continuous rain.
Barisal	·670	+·073	—·044	SE	7	10	2·06	
Calcutta	·565	+·046	—·122	ESE	7	10	2·09	Continuous rain.
Jessore	·638	+·070	—·076	SE	22	10	4·76	Continuous rain.
Krishnagar	·603	+·035	...	ESE	15	10	2·16	Raining.
Burdwan	·569	+·021	—·126	NE	10	10	1·35	Continuous rain.
Bankura	·509	—·022	...	E	14	10	2·45	Raining.
Raniganj	·565	+·004	...	E	10	10	2·35	Drizzling.
Hazaribagh	·576	—·029	—·133	ENE	23	10	0·42	Gale.
Midnapore	·524	+·009	...	Calm	2	10	2·40	
Ranchi	·531	—·039	—·165	NE	21	10	0·98	
Chaibassa	·472	—·052	—·211	E	2	10	2·02	Continuous rain.
Sambalpur	·488	0	—·216	ENE	4	10	0·54	Drizzling.
Raipur	·510	—·010	—·173	NNE	8	8	1·07	Continuous rain.
Chanda	·584	—·057	—·154	W	5	10	4·61	Raining.
Nagpur	·556	—·037	—·139	NW	13	8	0·92	Showery.
Seoni	·589	—·017	—·114	NNE	6	10	0·14	
Jubbulpore	·586	—·011	—·120	NNE	11	5	0·18	Gale.

The above shows that there had been a slight decrease of pressure within the storm but that in all surrounding regions pressure had increased. The combined change had occasioned very steep barometric gradients around the centre. Strong cyclonic winds and gales prevailed around the storm accompanied with heavy rain over the Central

Provinces on the one hand and Lower Bengal on the other. The following gives a few of the heaviest falls of rain in the latter region :—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 19th September.
		Inches.
BACKERGUNGE	Bauphal	13·30
,,	Patuakhali	12·05
KHULNA	Kaliganj	10·30
,,	Morellganj	10·25
,,	Bagerhat	9·84
24-PARGANAS	Barasat	9·74
KHULNA	Mollahat	9·21
BACKERGUNGE	Pirojpur	8·75
,,	Barisal	8·42
MURSHIDABAD	Dumkal	8·02
BACKERGUNGE	Doulatkhan	7·63
,,	Bhola	7·61
KHULNA	Nakipur	7·54
,,	Paikgacha	7·05
,,	Kalaroa	7·00

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. *Adana*	9 27	83 11	29·813	WSW	5	Moderate sea and fine.
S.S. *Baron Fairlie*	9 29	82 42	·860	W	7	High sea 4 A.M. cloudy.
S.S. *Avala*	9 51	83 24	·888	SSW	4	
S.S. *Alderney*	14 04	93 35	...	SW	...	4 A.M. hazy.
S.S. *Gaekwar*	14 05	86 09	...	SW	7	Heavy head sea.
S.S. *Chelydra*	15 07	92 32	·792	SSW	4	Overcast.
S.S. *Madura*	15 32	94 58	·807	SSW	4	Beam sea and rain squalls.
S.S. *Maharani*	15 37	95 00	·966	SW	4	Moderate sea and dull, rainy.
S.S *Rajpootana*	16 12	97 16	...	S	2	Rainy.
S.S. *Karagola*	Rangoon		·894	...	...	Midnight raining.
S.S. *Shahzada*	18 10	92 05	·698	SSW	5	Rough sea. 4 A.M. thick with rain.
S.S. *Matiana*	18 15	84 01	·516	SW	5	Heavy sea. 4 A.M. rainy.
S.S. *Argus*	18 16	84 28	...	SW	6	Following sea; cloudy.
S.S. *Onda*	18 19	91 15	29·468	SW	5	Rough beam sea. 8 P.M. showery.
S.S. *Yanariva*	18 52	87 10	·560	SW	8	Heavy sea.
S.S. *Inchkeitle*	19 35	87 45	·539	SW	5	Heavy rain squalls.
S.S. *Patna*	19 52	86 15	...	SW	5	High sea.
S.S. *Plympton*	19 55	87 10	...	SSW	5	High sea and violent squalls.
S.S. *Chanda*	Saugor Island		·534	...	...	4 A.M. heavy rain.
S.S. *Kasara*	Chittagong		·732	...	...	Midnight constant rain.

The preceding information shows that there was nothing unusual in the weather conditions over the Bay on this day. South-westerly and south-south-westerly winds were blowing right up to the Bengal coast, but the force was not very strong and the mean force for the whole Bay had decreased 0·4 to 4·9. Very heavy rain was, however being received at this time over Deltaic Bengal.

September 20th.—The barometer was rising over by far the greater part of the country. The following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Cocanada	29·653	+·025	—·036	WSW	12	10	0·01	Sea rising.
Waltair	·611	+·069	—·066	W	35	9	...	Sea slight.
Masulipatam.	·722	+·018	+·001	WNW	16	10	...	Severe gale.
Gopalpur	·571	+·072	—·111	SW	38	2	0·02	Sea rough.
Puri	·583	+·082	...	WSW	32	8	...	
Cuttack	·591	+·091	—·076	W	7	10	0·21	
False Point	·587	+·078	—·084	SW	23	9	0·16	
Balasore	·596	+·082	—·069	SSW	5	8	0·17	
Saugor Island.	·611	+·089	—·072	SW	36	10	2·47	Squally.
Calcutta	·652	+·087	—·039	SE	7	10	14·53	Continuous rain.
Barisal	·797	+·127	+·078	SE	7	10	0·48	
Burdwan	·634	+·065	—·064	E	8	10	3·92	Continuous rain.

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Jessore	29·740	+·102	+·021	SE	17	10	7·35	Gale.
Berhampore	·707	+·086	+·005	E	17	10	7·20	Heavy rain.
Krishnagar	·686	+·083	...	ESE	15	10	11·57	Raining.
Raniganj	·607	+·042	...	E	9	10	2·30	Showery.
Patna	·694	+·033	—·004	ENE	19	10	0·22	Showery.
Hazaribagh	·576	0	—·133	E	21	10	0·72	Drizzling.
Gaya	·605	0	—·087	NE	21	10	1·21	Continuous rain.
Bankura	·556	+·047	...	E	5	10	1·95	
Midnapore	·590	+·066	—·106	S	2	8	1·63	Showery.
Ranchi	·554	+·023	—·140	SSE	15	10	0·59	
Chaibassa	·544	+·072	—·149	Calm	0	9	1·61	
Sambalpur	·554	+·066	—·168	SSW	10	10	0·30	Drizzling.
Raipur	·574	+·064	—·123	WNW	10	10	0·69	Raining.

The storm had been almost stationary but was apparently swaying north and south to a slight extent. Thus the lowest readings, which on the 19th lay to the south of Sambalpur, lay on the 20th to the north or north-east of that station. Steep gradients prevailed over the eastern quadrants of the storm and a strong monsoon was blowing over the north of the Bay and giving most extraordinarily heavy rain to Deltaic Bengal. The following gives some of the largest amounts :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 20th Sept.
		Inches.
Jessore	Bangaon	17·27
24-Parganas	Diamond Harbour	16·73
"	Alipore	14·53
Howrah	Howrah	14·05
Khulna	Rampal	13·05
24-Parganas	Basirhat	12·89
Hooghly	Serampore	12·31
Nadia	Krishnagar	11·57
Khulna	Satkhira	11·00
24-Parganas	Barasat	10·90
Midnapore	Kukrahaty	10·82
24-Parganas	Barrackpore	10·78
"	Dum-Dum	10·72

The following shows the 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.
	° ′	° ′	"			
S.S. *Gaekwar*	11 52	84 46	...	SW	6	
S.S. *Adana*	13 03	84 41	29·763	SSW	5	Moderate sea and fine.
S.S. *Onda*	15 55	93 27	·778	S by W	5	Moderate sea. Noon continuous heavy rain.
S.S. *Karagola*	16 04	93 54	·860	NE	2	Rain squalls.
S.S. *Alderney*	16 45	91 52	...	SW	...	
S.S. *Matiana*	Cocanada		·633	...	...	
S.S. *Yanariva*	17 00	87 13	·670	SW	9	High sea and hard rain squalls.
S.S. *Maharani*	17 39	91 56	·931	SW	4	Heavy swell. 8 P.M. heavy rain squalls.
S.S. *Chelydra*	18 25	90 32	·762	SSW	3	Clear.
S.S. *Plympton*	19 12	87 30	...	SSW	6	Very high sea and violent squalls.
S.S. *Kasara*	20 16	92 28	·649	ESE	5	Rough sea and fine.
S.S. *Argus*	20 28	87 35	...	SW	4	High following sea and rain squalls.
S.S. *Patna*	Off Sand Heads.*		...	SSW	6	High sea and heavy squalls.

* Noon position.

The above shows no important change. South-west monsoon winds blowing with a mean force of 4·3 prevailed throughout the Bay. The *Yanariva* in the centre of the Bay reported a hard south-west gale, but with this exception there was nothing remarkable about the weather over the Bay. The extraordinary rainfall over Calcutta and the adjacent districts appears to have been due to the fact that Calcutta and its vicinity lay just on the margin of the central area, that this central area did not move its position, and hence Calcutta for many hours lay just where there was an uninterrupted flow of moist air from the Bay and an uninterrupted up-take due to the action of the storm.

September 21st.—The barometric changes were again slight except in Chota Nagpur and part of North-West India where there had been a brisk recovery. The storm was practically unchanged as regards position, but had continued to fill up slowly and the depression of the

barometer at its centre was 0·133″. The centre again lay close to Sambalpur. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Masulipatam	29·711	—·011	—·016	WNW	15	10	0·97	Gale of wind.
Cocanada	·647	—·006	—·049	WSW	10	10	0·30	Sea slight.
Waltair	·626	+·015	—·062	W	27	9	...	Severe gale.
Gopalpur	·609	+·038	—·077	SSW	30	6	...	
Puri	·605	+·022	...	SW	2	7	...	Sea very rough.
Cuttack	·588	—·003	—·085	SW	5	7	...	
False Point	·607	+·020	—·070	SSE	18	10	0·48	Showery.
Balasore	·614	+·018	—·057	Calm	3	7	...	
Saugor Island.	·624	+ 013	—·064	WSW	28	10	3·14	Sea rough.
Calcutta	·654	+·002	—·041	ESE	10	10	10·83	Continuous rain.
Jessore	·752	+·012	+·029	ESE	11	10	3·97	Continuous rain.
Berhampore	·732	+·025	+·025	E	12	10	4·90	Continuous rain.
Krishnagar	·708	+·022	...	ESE	15	10	7·69	Continuous rain.
Raniganj	·639	+·032	...	ESE	8	10	1·28	Raining.
Burdwan	·659	+·025	—·045	ENE	10	10	1·90	Continuous rain for upwards of 12 hours.
Hazaribagh	·636	+·060	—·082	E	19	10	4·14	Continuous rain.
Bankura	·594	+·038	...	E	9	10	0·24	Raining.
Ranchi	·638	+·084	—·078	NE	9	10	2·52	Continuous rain.
Chaibassa	·582	+·038	—·116	Calm	0	10	0·29	Showery.
Sambalpur	·592	+·038	—·133	SSW	8	10	1·33	Drizzling rain.
Raipur	·593	+·019	—·107	Calm	7	0	0·16	Showery.
Nagpur	·655	+·030	—·070	NNW	8	7	0·07	Showery.
Seoni	·647	+·011	—·091	NNE	5	10	0·12	Drizzling rain.
Jubbulpore	·635	—·020	—·099	N	12	10	0·12	Do.

The preceding information shows small changes generally, but the storm continued to sway slightly and the centre was apparently again close to Sambalpur, a change which explains the brisk barometric rise in Chota Nagpur. A well marked but not very vigorous cyclonic circulation of the winds prevailed around the centre and rain continued to fall generally over the storm area. The fall was again very heavy over Deltaic Bengal and moderately heavy in West Bengal, but elsewhere the rainfall was light. The following gives a few of the principal amounts :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 21st Sept.
		Inches.
Hooghly	Serampore	16·65
24-Parganas	Dum-Dum	11·34
	Alipore	10·83
Howrah	Howrah	10·13
24-Parganas	Basirhat	9·82
Hooghly	Hooghly	9·70
24-Parganas	Barrackpore	8·42
Khulna	Kaliganj	8·20
Nadia	Ranaghat	8·10
24-Parganas	Diamond Harbour	7·85
Nadia	Krishnagar	7·69
Jessore	Bangaon	7·40
Khulna	Satkhira	7 38

The weather was improving over the Bay, except in the north where heavy rain and gales of wind continued. The *Chelydra* in Lat. 20° 39′ N. and Long. 88° 30′ E. and the *Yanariva* in Lat. 15° 22′ N. and Long. 86° 44′ E. reported southerly gales and the mean force of the wind over the Bay was 4·8, which was 1·1 above the normal.

September 22nd.—The barometer had risen over Northern India but had fallen over the Peninsula. The change had been brisk over Bengal, but slight elsewhere. The swaying motion of the storm had continued and the centre of the disturbance apparently lay to the southward of Sambalpur in about Lat. 21° N. and Long. 84° E. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Waltair	29·601	—·025	—·096	W	16	9	...	Sea slight.
Gopalpur	·595	—·014	—·101	NNW	11	5	0·03	Do.
Puri	·591	—·014	...	Calm	0	6	...	Sea falling.
Cuttack	·592	+·004	—.091	Calm	1	9	1·15	Showery.
False Point	·621	+·014	—·064	SSE	9	9	0·11	Distant lightning.
Balasore	·655	+·041	—·025	ESE	3	7	2·80	Continuous rain.

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Saugor Island.	29·693	+·069	—·005	ESE	19	10	3·57	Raining.
Barisal .	·830	+·029	+·100	SSE	5	7	0·18	
Calcutta .	·751	+·097	+·048	ESE	13	10	4·05	Continuous rain.
Jessore .	·809	+·057	+·078	SE	11	10	1·47	Continuous rain.
Raniganj .	·718	+·079	...	E	9	10	2·52	Drizzling rain.
Hazaribagh	·694	+·058	—·031	E	20	10	1·77	Continuous rain.
Burdwan .	·756	+·097	+·042	SE	10	10	2·75	Do.
Midnapore	·685	+·066	—·024	SE	4	10	0·88	
Ranchi .	·672	+·034	—·047	ENE	13	10	2·02	Continuous rain.
Chaibassa .	·630	+·048	—·076	Calm	0	9	1·27	Showery.
Sambalpur.	·596	+·004	—·136	ENE	4	10	0·05	
Raipur .	·589	—·004	—·111	NE	8	10	0·11	
Nagpur .	·647	—·008	—·083	Calm	8	9	0·04	
Chanda .	·668	—·024	—·088	WSW	6	10	...	
Seoni .	·660	+·013	—·079	NNE	2	10	0·11	Drizzling rain.
Jubbulpore.	·655	+·020	—·082	NNE	9	10	0·31	Do.

The preceding data show that practically the weather conditions were unchanged. The storm continued to lie over the east of the Central Provinces and adjoining districts, and around this area the winds were cyclonic and rainfall general. The rainfall, though still moderately heavy, had diminished considerably in Lower Bengal, as is shown by the following data :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 22nd September.
		Inches.
24-Parganas . .	Canning Town	6·50
Khulna . . .	Dumuria	5·20
24-Parganas . .	Dum-Dum	5·15
Midnapore . .	Kukrahaty	4·90
Howrah . . .	Mohesreka	4·66
Khulna . . .	Paikgacha	4·57
24-Parganas . .	Alipore	4·05
" .	Barrackpore	3·98
Khulna . . .	Bagerhat	3·95
Hooghly . .	Serampore	3·94
24-Parganas . .	Budge-Budge	3·60
" .	Diamond Harbour	3·58
" .	Saugor Island	3·57
Midnapore . .	Tamluk	3·51

September 23rd.—The cyclonic storm had suddenly commenced a westerly movement and the centre was apparently close to Raipur in about Lat. 21° N. and Long. 82° E. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Cocanada .	29·622	—·005	—·098	SW	8	10	...	
Waltair .	·616	+·015	—·095	SW	20	10	...	Sea slight.
Gopalpur .	·629	+·034	—·078	SW	14	8	0·19	Drizzling rain.
Puri . .	·649	+·058	...	SSW	2	10	3·86	Raining.
Cuttack .	·669	+·077	—·026	SE	2	10	2·28	Showery.
False Point	·709	+·088	+·010	SE	19	10	3·21	Continuous rain.
Balasore .	·725	+·070	+·034	SE	9	9	1·53	Raining.
Saugor Island.	·755	+·062	+·046	SE	25	10	1·34	Strong wind.
Midnapore .	·760	+·075	+·040	E	7	10	1·24	Drizzling rain.
Chaibassa .	·706	+·076	—·014	E	2	10	3·30	Continuous rain.
Ranchi .	·739	+·067	+·008	E	5	10	3·23	Continuous rain.
Hazaribagh	·753	+·059	+·010	ESE	20	10	0·89	Drizzling rain.
Sambalpur.	·624	+·028	—·119	ESE	7	10	0·24	
Raipur .	·581	—·008	—·130	ESE	5	10	0·30	
Chanda .	·601	—·067	—·162	WSW	4	10	1·87	Raining.
Nagpur .	·600	—·047	—·136	N	6	10	0·91	Showery.
Seoni	·622	—·038	—·113	NE	1	10	0·41	Drizzling rain.
Sutna .	·699	—·003	—·035	ENE	12	9	0·69	Gale of wind.
Jubbulpore.	·628	—·027	—·112	NNE	10	0	0·46	Showery.
Saugor .	·703	—·032	—·078	NNE	13	10	0·23	Drizzling rain.
Hoshangabad.	·678	—·071	—·072	NE	4	5	...	
Khandwa .	·687	—·084	—·083	N	12	9	0·12	Distant lightning.
Akola .	·649	—·100	—·110	NW	10	8	0·06	
Amraoti .	·648	—·073	—·106	NW	9	9	0·02	Showery.

The westerly advance of the storm accounts for the brisk recovery of the barometer in South-West Bengal and Orissa and for the brisk fall over parts of the Central Provinces. The storm had intensified slightly as the barometric depression near the centre amounted to 0·16". Cyclonic winds continued to circulate around the storm, but owing to the movement of the centre the wind's direction had changed somewhat in the different parts of the storm area. Thus all over Deltaic Bengal the direction had become easterly. There was very little rain to the southward of the storm but on its north-east and north-

west quadrants the rainfall was fairly heavy. The following gives the principal amounts in the previous 24 hours:—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 23rd September
		Inches.
BALASORE	Soro	7·58
KHULNA	Kaliganj	6·30
CHANDA	Armori	4·83
RAIPUR	Simga	4·25
HOWRAH	Howrah	4·03
RANCHI	Silli	3·90
PURI	Puri	3·86
HOSHANGABAD	Pachmarhi	3·81
BALASORE	Chandbali	3·57

September 24th.—The storm had moved very slowly west-north-westward and was central in Lat. 21° 30′ N. and Long. 79° 30′ E. The following gives 8 A.M. data for this day for the storm area:—

STATION.	PRESSURE.			WIND		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Waltair	29·738	+·122	+·010	SW	20	10	0·72	Sea slight.
Gopalpur	·749	+·120	+·034	SW	31	10	1·15	Severe gale of wind.
Puri	·748	+·099	...	SSW	2	7	1·88	
Cuttack	·748	+·079	+·040	SSW	3	10	4·09	Continuous rain.
False Point	·768	+·059	+·057	SSE	20	10	3·45	Do.
Balasore	·768	+·043	+·065	SSE	6	10	3·45	Raining.
Ranchi	·769	+·030	+·026	ENE	18	10	1·26	Continuous rain.
Chaibassa	·745	+·039	+·016	ESE	2	10	0·70	Drizzling rain.
Sambalpur	·658	+·074	—·056	ESE	10	10	0·05	Showery.
Raipur	·634	+·053	—·086	SE	6	10	1·38	Do.
Chanda	·630	+·029	—·138	Calm	6	10	2·61	Continuous rain.
Nagpur	·585	—·015	—·159	Calm	4	10	1·49	Raining.
Seoni	·596	—·026	—·152	NNE	0	10	0·95	Drizzling rain.
Jubbulpore	·613	—·015	—·134	NE	7	10	0·99	Do.
Sutna	·689	—·010	—·046	E	11	8	0·09	Gale of wind.
Saugor	·683	—·020	—·102	NE	13	10	0·22	
Hoshangabad.	·646	—·032	—·110	NE	5	10	0·06	
Indore	·689	—·038	—·100	Calm	3	10	0·11	Showery.
Khandwa	·650	—·037	—·126	NW	12	10	0·53	Do.
Akola	·637	—·012	—·132	W	9	10	0·10	
Amraoti	·625	—·023	—·131	W	13	10	2·05	Showery.
Malegaon	·695	—·031	—·110	WNW	8	8	0·34	

The barometer had risen over North-East India and the east and south of the Peninsula, while it had fallen over the greater part of North-West and Central India. The recovery had been rapid on the Circars coast. Cyclonic winds prevailed around the storm. The force was high on the Circars coast and was increasing on the opposite side of the Peninsula. The intensity of the storm had not changed and the rainfall was nowhere very heavy, though the fall had extended somewhat over the Bombay Presidency.

September 25th.—The cyclonic storm had moved north-north-westward and was central close to Pachmarhi in Lat. 22° 40′ N. and Long. 79° 10′ E. The intensity of the storm was unchanged, pressure at Hoshangabad showing an abnornal variation of —0·16″. The following gives 8 A.M. data for the storm area for this day:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Sambalpur	29·758	+·060	—·003	ESE	6	10	0·47	Showery.
Raipur	·700	+·066	—·036	S	4	10	0·69	Do.
Chanda	·694	+·064	—·087	SSE	6	10	0·42	Do.
Nagpur	·614	+·029	—·140	SW	8	10	2·19	Drizzling rain.
Seoni	·598	+·002	—·154	SE	0	10	1·49	Raining.
Jubbulpore	·619	+·006	—·136	ENE	5	10	1·00	Do.
Sutna	·682	—·007	—·060	E	8	8	0·04	
Allahabad	·712	—·021	—·012	ENE	16	9	...	
Benares	·730	—·009	+·005	ENE	7	10	0·07	
Cawnpore	·734	—·020	+·013	E	7	10	...	
Lucknow	·759	—·021	+·030	NE	6	8	...	
Jhansi	·724	—·004	—·035	ENE	8	7	0·06	Showery.
Nowgong	·688	—·013	—·059	E	4	10	0·02	Do.
Saugor	·670	—·013	—·115	ENE	12	10	0·73	Strong wind.
Hoshangabad.	·598	—·048	—·162	NW	3	10	0·43	Raining.
Khandwa	·675	+·025	—·104	WNW	6	10	0·81	Distant lightning.
Akola	·684	+·047	—·096	W	9	10	0·60	
Amraoti	·672	+·047	—·098	SW	13	10	1·70	Showery.
Malegaon	·717	+·022	—·086	W	10	3	0·44	
Surat	·728	+·020	—·097	NW	6	7	...	

The above shows a trifling barometric fall over the north of the Central Provinces and a recovery elsewhere. A moderate cyclonic circulation of the winds was shown. The rainfall area had decreased and rain was mainly confined to the Central Provinces, though there had been a

further local heavy fall of rain over Deltaic Bengal. The following gives rainfall data for the latter area :—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 25th September.
		Inches.
MIDNAPORE	Midnapore	6·62
24-PARGANAS	Alipore	6·22
MIDNAPORE	Tamluk	6·04
HOWRAH	Mohesreka	5·70
MIDNAPORE	Ghatal	4·56
24-PARGANAS	Barasat	4·26
MIDNAPORE	Dantan	4·25
HOWRAH	Ulubaria	4·18
24-PARGANAS	Dum-Dum	4·09
HOWRAH	Howrah	4·05
24-PARGANAS	Saugor Island	4·05

September 26th.—The cyclonic storm had advanced slowly north-north-eastward. The centre lay apparently in Lat. 24°N. and Long. 80°E. The intensity of the storm was probably increasing, the barometric depression at Jubbulpore having been 0·173." The following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE.			WIND.				
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inches	
Sambalpur	29·797	+·039	—·029	ESE	8	10	0·19	Showery.
Raipur	·734	+·034	—·012	S	9	10	0·25	
Nagpur	·703	+·089	—·060	Calm	12	10	1·03	Continuous rain.
Seoni	·688	+·090	—·078	WSW	5	10	4·08	Raining.
Jubbulpore	·589	—·030	—·173	WSW	6	10	1·00	Do.
Saugor	·672	+·002	—·117	N	5	9	1·48	Drizzling rain.
Hoshangabad.	·716	+·118	—·055	NW	2	10	1·23	
Khandwa	·750	+·075	—·036	WNW	7	9	0·94	Showery.
Akola	·758	+·074	—·025	W	17	10	0·70	
Amraoti	·713	+·041	—·063	SW	14	10	0·58	Showery.
Sutna	·635	—·047	—·115	E	9	10	0·30	Do.
Nowgong	·665	—·023	—·090	NE	4	10	0·50	Raining.
Jhansi	·719	—·005	—·047	ENE	8	9	0·18	Showery.
Allahabad	·700	—·012	—·033	E	13	10	0·14	Do.
Benares	·729	—·001	—·005	E	7	10	0·12	
Cawnpore	·735	+·001	+·011	E	7	10	0·50	
Lucknow	·750	+·001	+·021	N	7	10	0·17	Showery.

Cyclonic winds prevailed around the depression and rain, while continuing over the Central Provinces, had extended into the North-Western Provinces. The heavy rainfall in Deltaic Bengal had ceased.

September 27th.—The storm had continued to advance north-eastward. The centre lay in about Lat. 25° 40′ N. and Long. 82° 10′ E. The storm had further increased in intensity and near Allahabad the depression of the barometer amounted to 0·228." The following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE.			WIND.				
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	"	"	"				Inches	
Jubbulpore	29·698	+·019	—·069	W	6	5	0·94	
Saugor	·729	+·057	—·067	W	1	10	0·40	Drizzling rain.
Sutna	·641	+·006	—·119	SW	11	10	0·90	Strong wind.
Nowgong	·675	+·010	—·088	NW	4	10	1·25	Raining.
Jhansi	·712	—·007	—·061	WNW	5	8	0·71	
Allahabad	·516	—·184	—·228	WSW	18	10	1·08	
Daltonganj	·647	—·091	...	E	7	6	0·52	
Benares	·534	—·195	—·201	SSE	11	10	4·90	Continuous rain.
Buxar	·634	—·145	...	SE	10	10	1·92	Raining.
Cawnpore	·643	—·092	—·083	N	7	10	0·23	
Lucknow	·617	—·143	—·131	NE	8	10	1·07	
Gorakhpur	·623	—·188	—·127	ENE	7	10	4·36	Continuous rain.
Bahraich	·675	—·122	—·083	E	10	10	1·10	Raining.
Mainpuri	·711	—·041	—·048	NNE	4	10	2·60	
Bareilly	·712	—·081	—·034	Calm	4	10	0·72	Drizzling rain.
Patna	·729	—·081	—·030	ENE	10	10	1·10	Showery.
Gaya	·702	—·088	—·052	SSE	15	10	2·12	Continuous rain for upwards of 12 hours.

The barometer had risen briskly over the Central Provinces and had decreased briskly over the North-Western Provinces, changes due to the advance of the storm. Strong squally cyclonic winds prevailed close to the

storm area, and the rainfall was heavy in the same neighbourhood, as is shown below :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 27th September.
		Inches.
JAUNPUR	Jaunpur	8·34
PARTABGARH	Patti	7·20
BENARES	Chandauli	6·12
FYZABAD	Tanda	5·62
BALLIA	Ballia	5·50
JAUNPUR	Kerakat	5·31
	Mariahu	5·27
MIRZAPUR	Chunar	5·20
AZAMGARH	Muhammadabad	5·05
GHAZIPUR	Sayyidpur Bhitari	5·00
BENARES	Benares	4·94
AZAMGARH	Azamgarh	4·93
	Deogaon	4·90
BASTI	Harraiya	4·68
JAUNPUR	Machhlishahr	4·60
	Kutahan	4·58
SULTANPUR	Amethi	4·57
GORAKHPUR	Maharajganj	4·51

The influence of the storm was more or less confined to its immediate neighbourhood and the weather was quiet in other parts of the country.

September 28th.—The following gives 8 A.M. data for the same area as the preceding day :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weathr.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Jubbulpore	29·822	+·124	+·044	WNW	3	5	0·02	
Saugor	·868	+·139	+·052	W	2	4	0·05	
Sutna	·839	+·198	+·065	Calm	6	0	0·02	
Nowgong	·841	+·166	+·064	Calm	2	5	0·24	
Jhansi	·855	+·143	+·075	W	3	0	0·14	Showery.
Allah bad	·845	+·329	+·085	WSW	13	10	0·07	
Daltonganj	·834	+·187	...	W	4	6	0·04	

Station.	Pressure.			Wind		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches	
Benares	·809	+·275	+·052	SW	7	10	0·20	
Buxar	·815	+·181	...	WSW	8	9	1·41	Drizzling rain.
Cawnpore	·815	+·172	+·079	SW	4	10	0·13	
Lucknow	·825	+·208	+·066	SW	4	5	0·05	Showery.
Gorakhpur	·807	+·184	+·043	NE	6	10	4·05	Drizzling rain.
Bahraich	·823	+·148	+·064	S	3	2	0·52	
Mainpuri	·816	+·105	+·058	W	1	6	0·28	
Bareilly	·806	+·094	+·050	NW	1	7	0·01	Showery.
Patna	·846	+·117	+·072	WNW	8	10	4·38	Continuous rain.
Gaya	·830	+·128	+·063	W	6	7	0·05	Showery.

The preceding information shows that there had occurred a sudden and very rapid recovery of pressure over the east of the North-Western Provinces and the west of Bengal, resulting in the filling up of the depression and the break-up of the cyclonic circulation of the winds. Heavy rain was reported from the region formerly occupied by the storm, as is shown below :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 28th September.
		Inches.
GORAKHPUR	Maharajganj	17·31
BASTI	Domariaganj	7·73
GORAKHPUR	Hata	6·86
BASTI	Bansi	5·80
GONDA	Utraula	4·96
GORAKHPUR	Gorakhpur	4·85
	Padrauna	4·70
	Bansgaon	4·36
BASTI	Basti	4·25
	Khalilabad	4·21

The storm just described presented many important features, for instance, its longevity, the length of its trajectory, its unchangeableness as regards intensity, its want of movement between the 18th and the 22nd, and finally its determination of extraordinarily heavy rain to Deltaic Bengal. The last was the feature of most popular impor-

tance and the following gives heaviest rainfalls of the period September 19th to 25th in that region :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KHULNA	Kaliganj	19th September.	10·30
	Morellganj	,, ,,	10·25
	Bagerhat	,, ,,	9·84
24-PARGANAS	Barasat	,, ,,	9·74
JESSORE	Bangaon	20th ,,	17·27
24-PARGANAS	Diamond Harbour	,, ,,	16·73
	Alipore	,, ,,	14·53
HOWRAH	Howrah	,, ,,	14·05
KHULNA	Rampal	,, ,,	13·00
24-PARGANAS	Basirhat	,, ,,	12·89
HOOGHLY	Serampore	,, ,,	12·31
	Serampore	21st ,,	16·65
24-PARGANAS	Dum-Dum	,, ,,	11·34
	Alipore	,, ,,	10·83
HOWRAH	Howrah	,, ,,	10·13
24-PARGANAS	Canning Town	22nd ,,	6·50
KHULNA	Dumuria	,, ,,	5·20
24-PARGANAS	Dum-Dum	,, ,,	5·15
KHULNA	Kaliganj	23rd ,,	6·30
HOWRAH	Howrah	,, ,,	4·03
MIDNAPORE	Midnapore	24th ,,	4·13
	Midnapore	25th ,,	6·62
24-PARGANAS	Alipore	,, ,,	6·22
MIDNAPORE	Tamluk	,, ,,	6·04
HOWRAH	Mohesreka	,, ,,	5·70

The following table gives the data of the position and movement of the storm from the 15th to the 27th :—

DATE.	POSITION OF CENTRE AT 8 A.M.		Distance travelled during previous 24 hours.	Average hourly rate of motion in miles.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
15th September	21 10	88 15	...	...
16th ,,	21 10	87 0	95	4
17th ,,	21 10	86 0	54	2
18th ,,	21 10	84 0	150	6
19th to 22nd		Practically	stationary.	
23rd ,,	21 0	82 0	130	5
24th ,,	21 30	79 30	180	8
25th ,,	22 40	79 10	90	4
26th ,,	24 0	80 0	110	5
27th ,,	25 40	82 10	180	8

On the two last days of the month the weather was generally quiet and undisturbed, but during the last week of the month two local storms or disturbances affected the North-West Himalayas and the adjacent plains districts, occasioning some snow and rain and brisk reduction of temperature.

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

The winter snowfall commenced somewhat earlier than usual this year. The following are the reports received.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1) *Kurram.*—Between the 23rd and 27th of September snow fell on the highest peaks of the Sufedkoh down to 16,000 feet.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Kashmir.*—The meteorological observer at Gulmarg telegraphed that "yesterday (23rd) slight fresh snow commenced to fall on the head of Affervatta", and again "that slight snow fell yesterday (27th) over all the length of Affervatta mountain".

The observer at Killa Drosh reported a good fall of snow on the highest peaks on the 27th.

(2) *Simla Hills.*—The Conservator of Forests, Bashahr division reports as follows :—"On the 12th and 24th snow fell on the higher slopes two inches deep and on the 28th to a depth of 4 inches. The passes are still open. Snow has fallen very early this year."

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

(1) The Deputy Commissioner, Garhwal, reported there were slight falls of snow on the 23rd, 29th and 30th of September, but the falls were confined to the snowy regions.

The snowfalls were lighter than usual at this time of year. About eight men and about seven or eight hundred sheep and goats are reported to have been killed on or about the 27th or 28th September by snow on the Chorhoti mountains as they were returning from Thibet.

(2) The Deputy Commissioner, Almora, reports the following falls of snew on the Malla Danpur:—

1st and 2nd September	1 foot
7th "	½ "
13th to 15th "	1 foot.
19th and 20th "	1 "
26th to 28th "	1 "

and on the Malla Johar—

4th September	2 feet
12th "	2 "
13th "	4 "
26th "	4 "
27th "	2 "

Snow accumulated to a depth of 4½ feet on the peaks of Pindari, Kaphini and Kantela, while the depth of snow on Utadhura was 14 feet and on Rálam Dhura 7½ feet. The snowfall of the month has been greater than last year.

Summary of special Storm Reports.

The number of local storms during the month was not large, but there were fairly numerous thunderstorms in part owing to the delay in the withdrawal of the monsoon.

The following gives a statement of the chief local storms of which reports were received during the month :—

3rd September.—Thunderstorm at Salem from 8 P.M. to 9-10 P.M. The wind was strong and 0·63″ of rain fell.

4th.—Violent duststorm at Jacobabad at 4 P.M. The storm came up from east and lasted 20 minutes. During the storm 0·15″ of rain fell.

A moderate thunderstorm occurred at Allahabad between 6-30 P.M. and 8 P.M. Light showers occurred.

6th.—A thunderstorm occurred at 2 P.M. to 4 P.M. at Allahabad.

Thunderstorm at Salem from 10 P.M. to 11-5 P.M.

8th.—A slight thunderstorm was felt at Allahabad between 6 A.M. and 2 P.M.

9th.—A severe thunderstorm passed over Salem at about 10 P.M. causing some damage.

10th.—A thunderstorm was experienced at Salem at about 6-50 P.M.

11th.—A slight thunderstorm was felt at Allahabad from 6-30 P.M. to 8 P.M.

12th.—A thunderstorm occurred at Simla at 2-26 P.M. and lasted till 4·20 P.M.

14th.—A severe thunderstorm passed over Salem at 9-45 P.M. The lightning did some damage.

At Hanamconda there was a thunderstorm at 4 P.M. lasing thirty minutes. The total rainfall was 2·11 inches. The lightning did damage here also, one man being killed.

15th.—A severe thunderstorm occurred at Salem about 8 P.M.

16th.—A severe thunderstorm with heavy rain visited Allahabad. The storm lasted from 10-50 A.M. to 3-50 P.M.

18th.—A thunderstorm passed over Srinagar lasting from 8 P.M. to 10 P.M. Heavy rain fell.

A severe thunderstorm occurred at Salem at 10·40 P.M. and lasted until 11-20 P.M.

A thunderstorm was experienced at Nagpur throughout the day with rain and strong winds.

22nd.—A duststorm passed over Waltair between 4 P.M. and 6 P.M. accompanied with strong winds.

A slight thunderstorm occurred at Nagpur at 4 P.M.

26th.—A slight thunderstorm was reported from Nagpur from 7 to 10 P.M.

28th.—A severe thunderstorm was reported from Salem between 10-55 P.M. on the 28th and 1 A.M. of the 29th.

29th.—A sandstorm with rain passed to north-west in the neighbourhood of Ispahan between 3-30 P.M. and 4-30 P.M.

30th.—At 9-45 P.M. a thunderstorm passed over Salem and lasted till 0-15 A.M. of 1st October.

Earthquake Reports.—There was a slight earthquake felt in Bombay at 4 A.M. on the 10th. The disturbance commenced at about $3^h\ 48'$ A.M. Bombay time and reached

its maximum at 3^h 54′. The larger movements ceased at 4^h 2′ A.M. and the after tremors at 4^h 16′ A.M. It was not a distant earthquake nor was the movement large. The apparent distance of origin from Bombay may have been about 500 miles (*Englishman*).

At Kullukamby (Coonoor) a slight earthquake was felt at 3·15 A.M. on the 10th.

A shock of earthquake was felt all over Ceylon at 4·15 A.M. on the 10th. It was the severest shock since the volcanic eruption in the Straits of Sunda in 1883. The tremors lasted from 12 to 30 seconds. The movement apparently travelled from south-west to north-east.

Hail storms.—A hailstorm passed over the Jowai village in the Khasia hills, Assam, on the 30th. The stones were about the size of a pea.

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

Arabian Sea.—Except locally in the west where winds were remarkably unsteady, fairly well marked monsoon conditions obtained over the whole of the Arabian Sea during the first twenty-three days of the month. The mean air movement ranged between 2·8 and 4·4 during the period and was more or less above its normal September intensity from the 5th to the 7th and again on the 9th, 10th, 13th and 20th, of normal strength on the 4th, 8th, 12th, 14th, 15th and 22nd and lighter than usual during the rest of the period. Pressure conditions changed rapidly on the 23rd and were during the remainder of the month such as usually precede and accompany the withdrawal of the monsoon current from the north and centre of the sea. During this period, from the 24th to the 30th, very unsteady winds prevailed generally over the Arabian Sea, except the extreme south and south-east, where feeble monsoon winds continued.

There was a slight tendency to the establishment of north-east winds over the north and west of the sea during the last four or five days of the month, and this tendency became marked at the end of the month. The air movement was exceedingly light throughout the last week, being from 17 to 35 per cent. below its normal strength.

On the average of the whole month the air motion was only 0·2 below the normal in the Arabian Sea.

Bay of Bengal.—Ordinary south-west monsoon winds obtained steadily over the Bay to the south of Lat. 12° or 13° N. throughout the month. Over the rest of the Bay the air movement was very unsteady, being largely under the influence of two storms which, having orginated in the north of the Bay, marched westwards across the Orissa coast. The first of these two storms was generated on the 1st and passed inland during the 2nd. It was a feeble disturbance and exercised but little influence on the weather in the Bay. The strongest winds experienced during its existence were of force 8. Pressure was approximately uniform over the north and centre of the Bay from the 4th to the 9th, and the air motion over that area was not only very unsteady, but was also much below its normal strength. The second storm, which was remarkable in several respects, was a much more influential disturbance and occasioned very rough weather from the 18th to the 22nd, several vessels experiencing violent to fierce squalls, torrents of rain and a very high sea. The air movement ranged between an average of 3·3 and 5·3 during the period from the 10th to the 24th, and was on the mean of the whole period nearly 20 per cent. stronger than usual.

Important pressure changes occurred during the 24th and 25th, which tended to give lower pressures over the Andaman Sea and adjacent land area than elsewhere. Light unsteady winds from between north and west set in over the north and centre, and continued until the end of the month. The air movement over the Bay during the month was 0·1 above the normal.

From the preceding account of the weather in the Indian Seas it is evident that fairly well pronounced monsoon conditions prevailed generally over both the Arabian Sea and Bay of Bengal up to the 24th or 25th of the month, when the pressure distribution altered rapidly and the monsoon currents retreated southwards from the northern half of these areas. In ordinary years the monsoon current does not begin to retreat down the Bay until about the second week of October, and hence the most important feature of the meteorology of the Indian Seas in the month under review was the very early withdrawal of the monsoon winds from the Bay in the fourth week.

Equatorial Belt.—So far as can be judged from the very limited information available, moderate to fresh south-east trade winds obtained over the western half of this area throughout the month. Winds contained a strong easterly component at the Seychelles and an equally pronounced westerly element at Zanzibar. It is noteworthy that while Zanzibar obtained more than double its quantity of rain the total fall of the month at the Seychelles was 48 per cent. in defect of the normal.

Temperature of the Air.

The break in the rains and the high temperatures which had prevailed over a considerable part of North-Western, Western and Central India during the last ten days of August ceased to a great extent early in September when monsoon conditions were re-established and prevailed more or less uninterruptedly until the end of the month. The monsoon trough of low pressure lay well to the southward as it had done during the earlier months of the monsoon and a series of depressions—small and of feeble intensity during the first half of the month but more intense in the latter half—passed from the Bay into Central and Upper India. Accompanying these conditions there was a vigorous monsoon over the Bay which gave almost daily rain over Northern India keeping the temperature, but more particularly the day temperature, low. The Arabian Sea monsoon was less vigorous and the rainfall from this source was less well distributed. Thus while the West Coast and the south of the Peninsula received frequent showers and experienced generally normal or low temperatures, the current failed to give rain to the Bombay Deccan and adjacent districts and the mean temperature of that area was generally excessive throughout the month.

The mean maximum or day temperature of the month was generally in excess over the north of the Bombay Presidency, the Bombay Coast and the Deccan and thence across the centre of the Peninsula and over part of the Madras Deccan and of the Madras coast. The variations from the normal over this area were generally small except in two areas. The first included Upper Sind, the second Khandesh and the Bombay Deccan. The variations in these two areas exceeded +2°, as is shown below :—

Province.	Station.	Mean maximum temperature.		
		Actual, September 1900.	Normal, September	Variation of actual from normal, September 1900.
		°	°	°
Upper Sind	Jacobabad	105·2	103·0	+2·2
Bombay Deccan	Bijapur	89·4	85·4	+4·0
	Ahmednagar	87·8	84·4	+3·4
	Malegaon	89·6	87·1	+2·5
	Sholapur	90·4	88·0	+2·4

The day temperature, on the mean of the month, was also in excess of the normal over Tenasserim, Lower Burma, Arakan, Assam and North Bengal but the variations in this area were small and exceeded 2° only at the station for which comparative data are given below :—

Station.	Mean maximum temperature.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	°	°	°
Silchar	92·2	89·7	+2·5

Over the remainder of India the maximum temperature, on the mean of the month, was below the normal. In the south of the Peninsula the deficiency was small and unimportant, but over Northern and Central India the variations were large and important. Over the whole of the large area including the greater part of the Punjab, the whole of Rajputana, the North-Western Provinces, West Bengal, the north and centre of the Central Provinces and Central India the variations exceeded—2° and in the east of the Punjab and the west of the North-Western Provinces the amount of the variation increased to over —6°. The following gives comparative data for the large area where the day temperature, on the mean of the month, was over 3° in defect :—

Station.	Mean maximum temperature.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	°	°	°
Ludhiana	87·6	94·8	—7·2
Delhi	85·6	92·6	—7·0
Sirsa	91·6	98·2	—6·6
Umballa	86·3	92·5	—6·2
Jhansi	85·8	90·9	—5·1
Roorkee	86·3	91·2	—4·9
Nowgong	85·6	90·5	—4·9
Lahore	91·9	96·7	—4·8
Mainpuri	88·0	92·4	—4·4
Jaipur	88·7	92·8	—4·1
Neemuch	83·3	87·4	—4·1
Ajmer	86·4	90·4	—4·0
Sialkot	91·4	95·3	—3·9
Montgomery	97·8	101·7	—3·9
Saugor	82·1	86·0	—3·9
Khushab	95·6	99·2	—3·6
Cawnpore	88·7	92·3	—3·6
Patna	86·6	90·2	—3·6
Benares	87·4	90·9	—3·5
Meerut	88·1	91·6	—3·5
Sambhar	88·3	91·6	—3·3
Bikaner	94·8	97·9	—3·1

The day temperatures were at no time exceptionally high throughout the month, but fairly hot periods were reported on the 1st and 2nd in the West Punjab and the Deccan; on the 8th and 9th in the West Punjab; on the 11th in the West Punjab, the centre and west of the Peninsula and Burma; on the 15th in Bengal; between the 16th and 22nd in the Punjab and the centre and west of the Peninsula and on the 25th and 26th in Sind. The following table gives the two stations in the above localities which exhibited the largest variations from the normal on the above dates:—

Date.	Station.	Maximum variation of actual from normal of date.
		°
1st September	Rawalpindi	+11·7
	Raichur	+7·1
2nd "	Peshawar	+7·6
	Sholapur	+7·5
8th "	Dera Ismail Khan	+4·7
	Khushab	+4·7
9th "	Dera Ismail Khan	+6·4
	Peshawar	+5·0
11th "	Dera Ismail Khan	+4·5
	Yamethin	+8·6
	Ahmednagar	+9·6
15th "	Jalpaiguri	+7·3
	Bogra	+6·7
16th "	Cocanada	+6·3
	Mooltan	+0·7
17th "	Mooltan	+4·6
	Ahmednagar	+7·7
18th "	Rawalpindi	+6·1
	Ahmednagar	+8·6
19th "	Rawalpindi	+8·4
	Madras	+3·1
20th "	Mooltan	+5·4
	Bombay	+2·8
21st "	Mooltan	+2·5
	Ahmednagar	+6·5
22nd	Bijapur	+7·6
	Mooltan	+0·4
25th "	Hyderabad (Sind)	+3·7
	Kurrachee	+1·2
26th "	Hyderabad (Sind)	+4·6
	Kurrachee	+4·6

The following table gives the highest maxima recorded in each division or province during the month of September 1900 with the date on which they were recorded, together with comparative data of the highest temperatures previously recorded at these stations in September:—

Province or Division.	Station.	Highest maximum temperature recorded in September 1900.	Date on which recorded.	Highest maximum temperature recorded in September previous to 1900.	Year in which recorded.
		°		°	
Burma	Yamethin	100·0	11th	100·5	1897
Assam	Silchar	99·6	15th	101·3	1887
Bengal	Rungpur	96·2	16th	95·8	1884 and 1888
Orissa	Cuttack	94·9	15th	97·9	1899
Bihar	Chapra	96·8	16th	96·8	1896
Chota Nagpur	Daltonganj	94·1	14th and 15th.	99·1	1897
N.-W. P. and Oudh.	Gorakhpur	95·5	16th	104·4	1877
Punjab	Mooltan	107·4	19th	111·4	1898
Sind	Jacobabad	109·3	4th and 5th	115·3	1877
Rajputana	Bikaner	101·6	1st	109·0	1898
Gujarat	Bhuj	100·3	25th	103·1	1877, 1885 and 1889.
Central India	Nowgong	89·5	6th and 18th	99·6	1880
Central Provinces.	Chanda	94·2	1st and 15th	98·7	1899
Berar	Akola	91·9	14th and 15th	104·2	1899
West Coast	Cochin	91·0	29th	88·7	1897
Bombay Deccan	Malegaon	95·4	13th	100·9	1899
Mysore	Mysore	88·6	30th	92·1	1899
Madras Coast	Nellore	101·3	29th	106·4	1899
Madras Deccan	Cuddapah	98·2	1st, 3rd, 4th and 29th.	103·2	1899
South India	Tinnevelly	101·3	5th	103·4	1899

At the hill stations in Baluchistan, in Kashmir, in the Eastern Himalayas and in the Nilgiris the mean day temperature of the month was in excess, but at the remaining hill stations it was less than usual. The following gives comparative data for the stations at which the deficiency was more than 2°:—

Station.	Mean maximum temperature. Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	°	°	°
Taunggyi	70·9	77·2	−6·3
Mount Abu	72·0	75·4	−3·4
Murree	70·5	73·8	−3·3
Cherat	82·1	85·3	−3·2
Simla	64·6	67·7	−3·1
Pachmarhi	74·2	77·0	−2·8
Chakrata	66·4	69·0	−2·6

The mean minimum or night temperature of the month was, owing probably to the generally cloudy state of the sky, above the normal over the greater part of the country. It was, however, in defect of the normal over the greater part of the North-Western Provinces, Bihar, the greater part of Bengal, Ganjam, the east of the Central Provinces, Assam and Burma except Lower Burma and Tenasserim. The deficiency was generally small and only exceeded 1° at the stations for which comparative data are given below :—

Station.	Mean minimum temperature.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	°	°	°
Akyab	74·8	78·0	—3·2
Darbhanga	77·1	78·8	—1·7
Gorakhpur	76·5	77·9	—1·4
Toungoo	74·0	75·4	—1·4
Patna	77·8	79·1	—1·3
Gaya	76·7	77·9	—1·2
Bhamo	73·2	74·3	—1·1

Over the remainder of India the mean night temperature was higher than usual. The excess was, however, generally small and, with the local exceptions of Mergui and Surat, only exceeded 2° in the extreme north-west. The following gives comparative data for the area of largest excess :—

Station.	Mean minimum temperature.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	°	°	°
Jacobabad	80·6	75·9	+4·7
Peshawar	74·3	70·0	+4·3
Rawalpindi	72·9	68·7	+4·2
Mooltan	81·0	77·4	+3·6
Sialkot	76·3	73·3	+3·0
Kurrachee	79·7	77·0	+2·7
Lahore	75·5	73·0	+2·5
Deesa	75·9	73·7	+2·2
Hyderabad (Sind)	78·4	76·2	+2·2

At the hill stations the mean night temperature was generally normal, but at the following stations it wasmore or less in excess :—

Station.	Mean minimum temperature.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	°	°	°
Srinagar	59·8	53·4	+6·4
Leh	44·3	41·5	+2·8
Quetta	52·9	50·4	+2·5
Chaman	64·2	62·8	+1·4
Wellington	57·0	55·7	+1·3

The mean temperature of the month was in excess of the normal over the Indus Valley, Gujarat, the greater part of the Bombay and Madras Presidencies, Tenasserim, Lower Burma and Assam. The excess was important and more than 2° in amount only in two localities, *viz.*, the Indus Valley and the Bombay Deccan. The following gives comparative data for the stations in the these areas :—

Province or area.	Station.	Mean daily temperature.		
		Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
		°	°	°
Indus Valley	Jacobabad	92·9	89·4	+3·5
	Mooltan	90·9	88·5	+2·4
	Kurrachee	85·8	83·6	+2·2
	Hyderabad (Sind)	88·7	86·7	+2·0
Bombay Deccan	Sholapur	81·3	79·1	+2·2
	Bijapur	79·7	77·5	+2·2

Over the remainder of India the mean temperature of the month was lower than usual. The deficiency exceeded 2° locally in North Bihar and over the west of the North-Western Provinces and the east of the Punjab. The following gives comparative data :—

Province or Division.	Station.	Mean daily temperature.		
		Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
		°	°	°
North Bihar	Patna	82·2	84·7	—2·5
N.-W. P. (West)	Roorkee	79·9	82·5	—2·6
	Mainpuri	82·0	84·2	—2·2
	Jhansi	81·0	83·1	—2·1
East Punjab	Delhi	81·0	84·7	—3·7
	Ludhiana	81·5	84·9	—3·4
	Sirsa	83·5	86·7	—3·2
	Umballa	80·4	83·1	—2·7

The following table gives mean temperature data of the month for the 56 meteorological divisions of the Empire:—

Province.	Division.	Actual temperature.					Variation from normal of month.		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	85·2	74·7	80·0	10·5	19·4	+1·1	+1·6	−0·5
	Lower Burma (Deltaic)	86·0	77·3	81·7	8·7	16·6	+1·1	+1·0	+0·1
	Central do.	89·5	74·7	82·1	14·9	26·0	+0·4	−0·9	+1·3
	Upper do.	89·9	74·9	82·4	15·0	27·4	−1·1	−0·6	−0·5
	Arakan	86·7	74·8	80·8	11·9	22·4	+0·1	−3·2	+3·3
Bengal and Assam	Eastern Bengal	87·5	77·5	82·6	10·0	19·3	−0·2	+0·2	−0·4
	Assam (Surma)	92·2	76·0	84·1	16·2	27·3	+2·5	−0·3	+2·8
	Do. (Brahmaputra)	87·4	76·8	82·1	10·7	18·8	+0·2	0	+0·2
	Deltaic Bengal	87·7	77·8	82·7	9·9	20·2	−0·6	−0·4	−0·2
	Central do.	87·1	77·2	82·1	9·9	21·9	−1·2	−0·3	−0·9
	North do.	87·6	76·0	81·8	11·7	23·3	−0·8	−0·4	−0·4
	Bengal Hills	68·4	50·9	59·7	17·5	34·1	+0·6	−0·5	+1·1
	Orissa	87·9	78·4	83·1	9·5	19·5	−0·8	+0·1	−0·9
	Chota Nagpur	84·8	73·9	79·4	10·8	21·9	−2·2	+0·3	−2·5
	Bihar (South)	87·2	77·1	82·2	10·2	23·5	−3·0	−1·3	−1·7
	Do. (North)	87·4	76·7	82·0	10·7	24·9	−1·9	−1·3	−0·6
North-Western Provinces and Oudh.	North-Western Provinces (East)	87·9	77·1	82·5	10·8	23·8	−3·0	−0·1	−2·9
	Oudh (South)	88·9	76·1	82·5	12·8	27·0	−2·8	−0·2	−2·6
	Do. (North)	88·7	75·9	82·3	12·8	24·1	−1·9	−0·5	−1·4
	North-Western Provinces (Central)	87·5	76·2	81·9	11·3	22·9	−4·4	+0·3	−4·7
	Do. do. (West)	88·9	76·0	82·4	12·9	25·0	−3·5	−0·2	−3·3
	Do. do. (Submontane, East).	88·2	76·5	82·4	11·7	24·8	−2·2	−1·4	−0·8
	Do. do. (Submontane, West).	85·4	72·8	79·2	12·6	26·5	−3·2	−0·4	−2·8
	Do. do. (Hills)	67·8	57·5	62·7	10·3	21·4	−1·9	+0·1	−2·0
Punjab	Punjab, (South-East)	85·6	76·3	81·0	9·3	21·1	−7·0	−0·3	−6·7
	Do. (South)	89·4	75·0	82·2	14·4	31·1	−6·6	+0·3	−6·9
	Do. (Central)	91·9	75·5	83·7	16·4	40·2	−4·8	+2·5	−7·3
	Do. (Submontane)	88·4	75·4	81·9	13·1	31·2	−5·8	+1·4	−7·2
	Do. (Hills)	79·3	57·8	68·6	21·5	44·7	−0·9	+2·0	−2·9
	Do. (North)	92·9	73·6	83·3	19·3	47·1	−1·7	+4·3	−6·0
	Do. (West)	98·2	78·4	88·3	19·8	41·9	−1·4	+2·7	−4·1
Bombay and Malabar Coast Districts (Madras).	Malabar	83·6	74·7	79·1	8·9	15·3	0	+0·5	−0·5
	Madras (South Central)	87·7	71·2	79·5	16·5	24·1	−1·8	+0·7	−2·5
	Coorg	71·1	63·0	67·1	8·1	16·3	−1·3	+1·3	−2·6
	Mysore	82·5	66·7	74·6	15·8	23·0	−0·3	+0·9	−1·2
	Konkan	84·0	76·2	80·1	7·8	11·9	+0·6	+1·3	−0·7
	Bombay Deccan	85·6	69·3	77·5	16·3	23·7	+2·4	+1·1	+1·3
	Hyderabad (North)	84·6	63·4	74·0	21·3	31·2	...	...	...
	Khandesh	88·7	69·4	79·1	19·3	30·8	+3·0	+0·5	+2·5
Central Provinces and Berar.	Berar	86·6	72·9	79·8	13·7	21·6	−1·5	+0·8	−2·3
	Central Provinces (West)	86·2	74·1	80·2	12·1	22·5	−1·9	+0·9	−2·8
	Do. (Central)	84·2	73·1	78·7	11·1	20·2	−2·6	+1·0	−3·6
	Do. (East)	87·2	75·6	81·4	11·6	21·3	−1·1	−0·3	−0·8
Bombay (North)	Gujarat	90·1	77·4	83·8	12·7	20·9	+0·4	+1·7	−1·3
	Kathiawar and Cutch	89·6	75·5	82·6	14·1	25·4	+0·1	+1·0	−0·9
	Sind	98·7	79·6	89·1	19·1	34·5	+1·9	+3·2	−1·3
	Baluchistan Hills	90·6	54·1	72·4	36·4	60·5	+2·6	+2·0	+0·6
Rajputana and Central India.	Central India (East)	83·9	73·5	78·7	10·4	20·8	−3·6	+1·1	−4·7
	Rajputana (East), Central India (West)	87·4	74·6	81·1	12·8	23·6	−3·2	+1·6	−4·8
	Do. (West)	93·6	77·1	85·4	16·5	28·7	−3·1	+1·5	−4·6
Madras	East Coast (North)	88·2	78·1	83·2	10·2	19·1	−0·5	−0·1	−0·4
	Hyderabad (South)	86·5	72·6	79·6	13·9	22·5	−0·4	+1·3	−1·7
	Madras (Central)	91·3	74·8	83·1	16·5	24·8	+0·5	+0·8	−0·3
	East Coast (Central)	93·6	77·7	85·7	15·9	26·1	+0·9	+0·2	+0·7
	Do. (South)	93·2	77·2	85·3	16·0	25·0	+0·3	+0·7	−0·4
	Madras (South)	93·9	75·8	84·9	18·1	26·1	−0·8	+0·7	−1·5

The chief features of the temperature distribution were as follows :—

(1) Both the day and night temperatures and consequently also the mean temperature were above the normal over the Indus Valley and the west and centre of the Peninsula.

(2) The day temperature was slightly below, the night temperature slightly above and the mean temperature about normal over the south of the Peninsula.

(3) Both the day and night temperatures and consequently also the mean temperature were above the normal in Tenasserim and Lower Burma.

(4) The day temperature was largely below and the night temperature about normal over Northern and Central India so that the mean temperature was more or less below the normal.

At the commencement of the month the mean temperature was largely above the normal over the Punjab and considerably above over the centre and east of the Peninsula, while it was considerably below the normal over the central parts of the country and Upper Burma. Elsewhere the variations from the normal were small and irregular. The following gives comparative data for the 24 hours preceding 8 A.M. of the 1st and shows the distribution then prevailing :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st Sept.	Mean minimum temperature, 1st Sept.	Mean daily temperature, 1st Sept.
	°	°	°
Burma	− 0·8	−0·4	− 0·6
Assam	− 0·9	+0·2	− 0·4
Bengal	+ 0·1	+0·7	+ 0·4
Orissa	+ 0·8	−1·4	− 0·3
Bihar	− 0·1	+0·6	+ 0·3
Chota Nagpur	+ 2·4	+1·4	+ 1·9
North-Western Provinces and Oudh	− 2·3	+0·7	− 0·8
Punjab	+ 4·7	+4·9	+ 4·8
Sind	− 0·7	+1·6	+ 0·5
Rajputana	+ 1·3	+3·2	+ 2·3
Gujarat	+ 0·6	+0·5	+ 0·6
Central India	− 6·1	−0·1	− 3·1
Central Provinces	− 1·4	−0·2	− 0·8
Berar	+ 0·6	−0·1	+ 0·3
West Coast	+ 0·5	+0·9	+ 0·7
Bombay Deccan	+ 2·5	+0·4	+ 1·5
Mysore	+ 1·7	+0·2	+ 1·0
Madras Coast	+ 2·4	−0·1	+ 1·2
Madras Deccan	+ 5·5	+2·1	+ 3·8
South India	− 0·1	+1·5	+ 0·7

A considerable rise occurred over Baluchistan, Sind and Rajputana during the next two days and the mean temperature was higher than usual over that area. The following gives comparative data for those provinces from the 2nd to the 5th :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	2nd Sept.	3rd Sept.	4th Sept.	5th Sept.
	°	°	°	°
Baluchistan	+5·5	+7·5	+6·9	+7·5
Sind	+1·3	+3·8	+4·7	+1·9
Rajputana	−2·9	+0·1	+0·9	+1·3

In general, however, the changes of temperature were irregular depending on the occurrence of local rainfall and there were no strongly marked temperature variations during the first ten days of the month. Over the Peninsula the mean temperature was generally in excess. The following gives comparative data for each alternate day from the 2nd to the 10th for the Peninsular divisions :—

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

In the extreme north-west the mean temperature was also generally in excess. The following gives similar data for this area :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	2nd September.	4th September.	6th September.	8th September.	10th September.
	°	°	°	°	°
Punjab	+1·5	−0·3	+0·6	+2·9	+0·5
Sind	+1·3	+4·7	+1·1	+3·2	+2·8
Rajputana	−2·9	+0·9	−2·1	−0·1	+0·8
Gujarat	−0·7	+1·6	−1·3	−1·0	−1·2

In the Gangetic Plain, Assam and Central India, the heat was generally less than usual, as is shown below :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	2nd September.	4th September.	6th September.	8th September.	10th September.
	°	°	°	°	°
North-Western Provinces and Oudh.	—0·5	—0·6	+1·4	—2·4	—1·7
Assam	+0·2	—0·7	—2·2	—0·2	—2·5
Central India	—3·0	+1·2	+0·2	—0·8	—0·2

In Burma there was generally a marked excess during this period :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	2nd September.	4th September.	6th September.	8th September.	10th September.
	°	°	°	°	°
Burma	—0·4	—0·2	+0·9	+2·3	+3·3

On the 11th a local depression determined heavyish rain to the North-Western Provinces and the Eastern Punjab, and a depression of temperature occurred which was maintained until the 16th. The following gives comparative data :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	11th September.	12th September.	13th September.	14th September.	15th September.	16th September.
	°	°	°	°	°	°
North-Western Provinces and Oudh.	—1·8	—1·3	—0·1	—2·5	—2·0	+0·7
Punjab	+1·1	—2·1	—2·3	—2·9	—2·9	+0·3

On the 12th and 13th a strong flow of monsoon winds occurred across the south of the Peninsula and the south of the Bay to Tenasserim and Burma. It was accompanied with heavy rain and was followed by a brisk fall of temperature which lasted till the 16th. This is shown below :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	12th September.	13th September.	14th September.	15th September.	16th September.
	°	°	°	°	°
Burma	+2·5	+0·6	—0·1	—0·4	—0·8
South India	—1·6	—1·9	—2·1	—1·4	0
Madras Coast	—0·4	—0·8	—0·3	—0·2	+0·1
Madras Deccan	+0·3	—1·6	—1·1	—0·3	+0·8
Mysore	+1·2	—0·7	—0·6	—0·6	+1·2

On the other hand, the same distribution of pressure, which determined heavy rain to the southern districts, occasioned a diminution of rain over Bengal, and the mean temperature of the Bengal divisions exceeded the normal from the 11th to the 16th. The following gives data :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	11th September.	12th September.	13th September.	14th September.	15th September.	16th September.
	°	°	°	°	°	°
Assam	—1·2	—0·8	+1·9	+1·8	+3·8	+3·5
Bengal	+0·3	+2·1	+3·0	+2·9	+3·5	+1·9
Orissa	+1·4	+1·5	+1·6	+2·6	+2·0	—2·2
Bihar	—4·7	+1·2	+2·3	+2·9	+3·9	+2·6
Chota Nagpur	+1·1	+1·2	+2·0	+2·7	+2·8	+1·3

On the 15th a barometric depression appeared over the north of the Bay, advanced to the Orissa coast on the 16th and reached the east of the Central Provinces on the 17th, where it remained until the 22nd. It then advanced westward through the Central Provinces and on the 25th, began to move northward towards the North-Western Provinces and disappeared over Bihar on the 28th. The storm gave heavy rain throughout its course, and determined torrential rain to Lower Bengal from the 19th to the 22nd so that a very rapid fall of temperature occurred over North-Eastern and Central India, where the depression of temperature below the normal was very marked for some days. On the 15th the heat was greater than usual in all parts of North-East and Central India. On the 16th the mean temperature was reduced to below the normal over Orissa, Ganjam and South-West Bengal; by the 17th this reduction of temperature had extended

to West and Lower Bengal and all parts of the Madras coast; by the 18th it had covered all parts of North-East India, and by the 19th had extended to the central parts of the country and the Gangetic Plain. This condition lasted until the storm disappeared, and the rainfall ceased on the 28th. The following table gives comparative temperature data for Burma, Assam, Bengal and the Central and North-Western Provinces for each alternate day from the 15th to the 27th, and shows the extension of the area of low temperature with the extension of rainfall :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	15th September.	17th September.	19th September.	21st September.	23rd September.	25th September.	27th September.
	°	°	°	°	°	°	°
Burma . .	−0·8	−1·8	−4·5	−4·0	−0·2	+0·1	+1·7
Assam . .	+3·8	+2·1	−0·4	−0·8	+0·4	+1·7	+1·0
Bengal . .	+3·5	−0·2	−3·9	−5·6	−3·3	−3·4	−0·4
Orissa . .	+2·0	−2·9	−2·6	−1·4	−2·7	−3·3	+0·3
Bihar . .	+3·9	+0·4	−1·0	−9·1	−4·8	−2·6	−4·5
Chota Nagpur.	+2·8	−1·0	−4·1	−5·5	−6·2	−2·9	−0·1
Central Provinces.	+2·3	+1·1	−1·8	−4·0	−3·0	−2·9	−1·6
North-Western Provinces and Oudh.	−2·0	+1·8	−0·4	−5·3	−2·1	−1·7	−4·6

The Bombay Presidency, including Sind, was practically outside the influence of this rainfall, and the mean temperature in the Bombay divisions was excessive throughout the whole period. This is shown by the following table which gives comparative data for each alternate day from the 17th to the 27th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	17th September.	19th September.	21st September.	23rd September.	25th September.	27th September.
	°	°	°	°	°	°
Sind	+3·5	+3·1	+2·4	+2·6	+3·4	+3·1
Gujarat	+1·6	+0·9	+1·5	+1·4	+2·5	+1·1
West Coast	+1·6	+1·0	+0·2	+0·3	−0·3	+0·7
Bombay Deccan . .	+2·9	+1·0	+1·6	+0·9	+0·6	−0·7

On the other hand, in the Punjab and Baluchistan temperature was very unsteady. From the 17th to the 19th the heat was excessive over these two provinces. This is shown in the following table :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	17th September.	18th September.	19th September.
	°	°	°
Punjab	+3·7	+5·1	+3·0
Baluchistan	+7·5	+8·8	+8·8

On the 20th heavy rain fell over the east of he Punjab, reducing temperature to below the normal. This disturbed weather continued and extended westward occasioning snow on the hills and lasted until the 25th. It ceased on the 26th but recommenced on the 27th and lasted during the 28th when the weather finally cleared. The fall of rain and snow occasioned a rapid decrease of temperature over Baluchistan and the Punjab where the mean temperature was lower than usual until the close of the month. The following gives comparative data from the 20th to the 30th :—

Province.	Variation 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.	27th Sept.	28th Sept.	29th Sept.	30th Sept.
	°	°	°	°	°	°	°	°	°	°	°
Baluchistan	+5·7	+8·0	+4·5	+2·0	−4·8	−7·7	−5·6	−8·0	−11·0	−9·2	−7·0
Punjab . .	−0·6	−1·3	−3·4	−3·4	−4·3	−3·6	−1·9	−4·2	−7·7	−6·7	−5·1

The day on which the mean temperature was most widely below the normal was the 25th. The following gives comparative data for the 24 hours preceding 8 A.M. of that date and shows that except in parts of North Bombay, Madras, Burma and Assam the heat was less than usual all over the Indian region :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 25th September.	Mean minimum temperature, 25th September.	Mean daily temperature, 25th September.
	°	°	°
Burma	+0·3	−0·1	+0·1
Assam	+3·4	0	+1·7
Bengal	−4·2	−2·5	−3·4
Orissa	−5·8	−0·8	−3·3
Bihar	−2·8	−2·3	−2·6
Chota Nagpur	−5·4	−0·3	−2·9
North-Western Provinces and Oudh.	−3·9	+0·6	−1·7

Province or Division.	Variation from normal of		
	Mean maximum temperature, 25th September.	Mean minimum temperature, 25th September.	Mean daily temperature, 25th September.
	°	°	°
Punjab	−8·7	+1·5	−3·6
Baluchistan	−7·8	−7·6	−7·7
Sind	+1·2	+5·6	+3·4
Rajputana	−5·4	+2·1	−1·7
Gujarat	+1·3	+3·7	+2·5
Central India	−8·0	+2·2	−2·9
Central Provinces	−5·9	+0·2	−2·9
Berar	−6·6	+0·6	−3·0
West Coast	−1·2	+0·6	−0·3
Bombay Deccan	−0·5	+1·7	+0·6
Mysore	−1·4	−1·0	−1·2
Madras Coast	−1·5	+0·5	−0·5
Madras Deccan	+0·2	+0·3	+0·3
South India	−0·1	+1·5	+0·7

At the close of the month the mean temperature was beginning to rise, but over Northern India had not recovered from the disturbed weather and depression noticed above. The following gives data for the 24 hours preceding 8 A.M. of the 30th and shows that while over the Peninsula to the south of Lat. 18° and over Burma and Assam the mean temperature was above the normal, over the whole of the remainder of India it was below:—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 30th September.	Mean minimum temperature, 30th September.	Mean daily temperature, 30th September.
	°	°	°
Burma	+1·9	+1·2	+1·6
Assam	+3·0	+2·5	+2·8
Bengal	+0·2	+0·5	+0·4
Orissa	−1·1	+0·6	−0·3
Bihar	−7·3	−3·7	−5·5
Chota Nagpur	−4·2	−1·2	−2·7
North-Western Provinces and Oudh	−4·6	−3·9	−4·3
Punjab	−6·5	−3·7	−5·1
Sind	+0·9	−1·2	−0·2
Rajputana	−3·8	−3·2	−3·5
Gujarat	−2·4	−2·2	−2·3
Central India	−3·7	−2·5	−3·1
Central Provinces	−1·5	−2·2	−1·9
Berar	+0·1	−1·6	−0·8
West Coast	+1·8	+1·3	+1·6
Bombay Deccan	0	−0·2	−0·1
Mysore	+3·7	+1·7	+2·7
Madras Coast	+3·1	+0·8	+2·0
Madras Deccan	+1·8	+1·4	+1·6
South India	+1·6	+1·8	+1·7

The following gives the variations of the mean temperature, week by week, during the month and also for the whole month:—

Province or Division.	Variation from normal of mean temperature for week ending				
	8th September.	15th September.	22nd September.	29th September.	For whole month, September 1900.
	°	°	°	°	°
Burma	+0·7	+1·6	−2·9	+0·9	0
Assam	−0·9	+0·3	+0·4	+1·6	+0·5
Bengal	+0·5	+1·9	−3·0	−1·5	−0·4
Orissa	+0·4	+1·7	−2·1	−1·8	−0·4
Bihar	0	+0·7	−2·7	−5·1	−1·9
Chota Nagpur	+0·5	+2·0	−3·6	−2·9	−1·0
North-Western Provinces and Oudh.	−0·3	−1·7	−1·1	−3·6	−1·8
Punjab	+0·7	−1·1	+1·0	−4·5	−0·9
Sind	+2·7	+2·7	+2·9	+2·8	+2·6
Rajputana	−0·6	−0·8	−0·4	−1·8	−0·9
Gujarat	−0·4	+0·4	+1·3	+0·9	+0·8
Central India	−0·4	−0·4	−1·1	−2·9	−1·3
Central Provinces	−0·3	+1·5	−1·5	−2·3	−0·7
Berar	−0·6	+2·7	−0·9	−2·1	−0·4
West Coast	+0·9	+0·4	+1·0	+0·6	+0·7
Bombay Deccan	+1·6	+2·5	+1·5	+0·2	+1·8
Mysore	+0·9	+0·2	−0·5	+0·2	+0·3
Madras Coast	−0·1	+0·1	+0·2	+0·2	+0·3
Madras Deccan	+0·8	−0·1	+0·5	+1·2	+0·6
South India	−0·1	−1·7	+0·4	+1·0	−0·1

Winds.

As was mentioned above, the monsoon trough of low pressure lay during September, as in the preceding months of the monsoon, unusually for south, and as a consequence the winds at Port Blair and on the Lower Burma coast were unusually westerly. This is shown below :—

Station.	Mean wind direction.		
	Actual, September 1900.	Normal, September.	Westerly deflection.
	°	°	°
Port Blair	S 73 W	S 52 W	+21
Diamond Island	S 71 W	S 45 W	+26

Both the velocity and steadiness of the wind exceeded the normal at Port Blair and varied irregularly from the average at the Lower Burma stations. This is shown by the following comparative data :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Port Blair	87	74	+13	252	228	+24
Rangoon	32	49	—17	70	89	—19
Diamond Island	30	55	—25	191	182	+ 9

On the Arakan coast the wind, on the contrary, was more easterly than usual while at Chittagong the wind, though stronger than usual, was unsteady and blew from a little west of south. The following gives data for these two stations :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
				°	°			
Akyab	60	42	+18	S 28 E	S 8 E	64	74	—10
Chittagong	20	37	—17	S 5 W	S 22 E	114	102	+12

In lower Bengal and Orissa the winds, under the influence of the pressure distribution mentioned above, were considerably more easterly than the normal. This easting was particularly marked at False Point. This is shown below :—

Station.	Mean wind direction.		
	Actual, September 1900.	Normal, September.	Easterly deflection.
	°	°	°
Calcutta	S 38 E	S 23 E	+15
Saugor Island	S 7 E	S 2 W	+ 9
False Point	S 6 E	S 20 W	+26

The velocity was generally higher than usual while the steadiness was about the average. The following gives comparative data : —

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Calcutta	48	42	+ 6	121	98	+23
Saugor Island	48	49	— 1	324	257	+67
False Point	50	37	+13	261	205	+56

In West Bengal and the east of the North-Western Provinces this abnormal easting in the wind direction was even more strongly marked than in Lower Bengal and here the steadiness was very great and the velocity above the normal. The following gives data for Allahabad and Hazaribagh in illustration :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, September 1900	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Easterly deflection.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
				°	°	°			
Allahabad.	43	13	+30	N 62 E	N 8 W	+70	270	128	+ 142
Hazaribagh.	42	10	+32	S 85 E	S 52 E	+33	232	178	+ 54

In the Upper Sub-Himalayas the winds varied largely from the normal having been both more southerly and more easterly than the average. This is shown below :—

Station.	Mean wind direction.	
	Actual, September 1900.	Normal, September.
	°	°
Dehra Dun	S 5 W	N 75 W
Roorkee	N 80 E	S 14 W
Meerut	S 73 E	N 49 W
Lahore	S 30 E	N 55 E
Ludhiana	S 23 E	N 44 W

The velocity and steadiness were also both generally low, as is shown below :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual, percentage, September 1900.	Normal, percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Dehra Dun	59	20	+39	15	25	—10
Roorkee	7	7	0	27	48	—21
Meerut	13	19	— 6	22	46	—24
Lahore	10	7	+ 3	67	50	+17
Ludhiana	12	14	— 2	48	31	+17

At Jacobabad there was also an unusual amount of easting in the wind and at this station both the velocity and the steadiness were low, but at the remaining stations in the Indus Valley the wind conditions were fairly normal. The following gives data for the Indus Valley stations :—

Station.	Mean steadines.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual September 1900.	Normal, September.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
				°	°			
Peshawar	35	51	—16	N 7 E	N 39 E	43	73	—30
Jacobabad	21	45	—24	S 70 E	S 32 E	43	72	—29
Kurrachee	89	87	+ 2	S 61 W	S 67 W	336	356	—20

In Rajputana the wind force was generally low, but in other respects the winds were fairly normal. The following gives data :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
				°	°			
Jaipur	28	43	—15	N 3 W	N 39 W	75	108	—33
Deesa	56	53	+ 3	N 71 W	S 69 W	169	200	—31

The following gives data for the Bay Islands, Burma and he different provinces of Northern India :—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
				°	°			
Bay Islands	66	74	— 8	S 70 W	S 48 W	210	338	—128
Burma	41	49	— 8	S 14 W	S 22 W	108	115	— 7
Bengal	39	43	— 4	S 12 E	S 16 E	186	152	+ 34
Orissa	50	37	+13	S 6 E	S 20 W	261	205	+ 56
Chota Nagpur	42	10	+32	S 85 E	S 52 E	232	178	+ 54
Bihar	72	49	+23	S 69 E	S 81 E	77	96	— 19
North-Western Provinces.	31	15	+16	S 78 E	N 64 W	84	62	+ 22
Punjab	19	24	— 5	S 51 E	N 18 E	53	51	+ 2
Sind	55	66	—11	S	S 20 W	190	214	— 24
Rajputana	42	48	— 6	N 37 W	N 74 W	122	154	— 32

The preceding data show that the principal features in the wind conditions were the lightness and increased westing in the wind over the centre of the Bay and the increased easting over parts of Northern India. These differences from the normal were directly related to the unusual pressure conditions.

In the Deccan including Berar, the Bombay Deccan, the Central Provinces and Hyderabad the wind directions were nearly normal. This is shown below:—

STATION.	MEAN WIND DIRECTION.	
	Actual, September 1900.	Normal, September.
	°	°
Belgaum	N 74 W	S 78 W
Sholapur	N 62 W	N 69 W
Poona	S 81 W	W
Akola	N 58 W	N 59 W
Buldana	N 65 W	N 47 W
Khandwa	N 56 W	N 66 W
Nagpur	N 62 W	N 52 W
Hyderabad (Deccan)	N 67 W	N 71 W

The velocity was, however, generally greater than usual and the steadiness was exceptionally great. The following gives data in illustration:—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Belgaum	85	75	+10	416	385	+31
Sholapur	79	67	+12	202	245	—43
Poona	88	77	+11	356	259	+97
Akola	85	68	+17	233	155	+78
Buldana	90	68	+22	259	200	+59
Khandwa	80	67	+13	215	154	+61
Nagpur	53	37	+16	160	147	+13
Hyderabad (Deccan)	84	61	+23	165	150	+15

Along the West Coast the wind was also practically normal, though at Karwar the westing was somewhat less than usual. This is shown below:—

STATION.	MEAN WIND DIRECTION.		
	Actual, September 1900.	Normal September.	Westerly deflection.
	°	°	°
Bombay	N 82 W	N 84 W	— 2
Karwar	N 68 W	N 80 W	—12

The steadiness was unusually great at both stations and at Karwar the velocity was above the average. The following gives data:—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Bombay	77	52	+25	263	267	— 4
Karwar	90	78	+12	96	58	+38

In South India steady westerly winds prevailed at nearly all stations. This is shown below:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
				°	°			
Salem	55	69	—14	S 73 W	S 63 W	56	82	—26
Chitaldroog	85	78	+ 7	N 88 W	N 87 W	229	228	+ 1
Bangalore	77	84	— 7	N 88 W	S 85 W	189	167	+22
Hassan	89	79	+10	N 84 W	N 79 W	83	91	— 8
Mysore	77	68	+ 9	S 77 W	N 87 W	239	266	—27
Madras	49	52	— 3	S 75 W	S 36 W	152	149	+ 3
Bellary	87	75	+12	N 75 W	N 78 W	275	223	+52

The following gives data for the different divisions of the Peninsula:—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, September 1900.	Normal percentage, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Westerly deflection.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
				°	°	°			
Central Provinces.	67	52	+15	N 59 W	N 59 W	0	188	151	+37
Berar	88	68	+20	N 62 W	N 53 W	+ 9	246	178	+68
Bombay Deccan.	84	73	+11	N 78 W	N 86 W	— 8	325	296	+29
West Coast	84	65	+19	N 75 W	N 82 W	— 7	180	163	+17
Mysore	82	77	+ 5	S 89 W	N 86 W	...	185	188	— 3
Madras Deccan.	86	68	+18	N 71 W	N 75 W	— 4	220	187	+33
Madras Coast.	49	52	— 3	S 75 W	S 36 W	+39	152	149	+ 3
South India	55	69	—14	S 73 W	S 63 W	+10	56	82	—26

The preceding data show that a steady westerly wind above the average velocity prevailed across the Peninsula during the month.

The air movement over the Arabian Sea, as derived from the logs of vessels, was about normal. This is shown below :—

Sea area.	Wind force (Beaufort scale)		
	Actual, September 1900.	Normal, September	Variation of actual from normal, September 1900.
Arabian Sea	3·3	3·5	−0·2

In Baluchistan and at the hill stations in the North-West Himalayas the winds varied irregularly from the normal, the principal abnormal feature having been the increased easting at Srinagar, Simla and Chakrata. The following gives data for these three stations :—

Station.	Mean wind direction.	
	Actual, September 1900.	Normal, September.
	°	°
Srinagar	S 35 E	N 24 W
Simla	S 33 E	N 13 E
Chakrata	S 14 E	S 37 W

Increased easting was also shown at the hill stations in the Eastern Himalayas. The following gives data for Katmandu and Darjeeling in illustration. :—

Station.	Mean wind direction.	
	Actual, September 1900.	Normal, September.
	°	°
Katmandu	S 76 E	N 80 W
Darjeeling	N 82 E	S 58 E

The velocity was greater than usual at all stations except Quetta, Simla and Darjeeling. This is shown below :—

Station.	Mean wind velocity in miles per diem.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Quetta	24	62	−38
Leh	59	42	+17
Srinagar	81	76	+ 5
Kailang	51	38	+13
Simla	71	99	−28
Chakrata	190	128	+62
Ranikhet	58	52	+ 6
Katmandu	29	17	+12
Darjeeling	74	85	−11

At the central and southern hill stations the wind was generally less westerly than the average, but the variations from the normal were not important. This is shown below :—

Station.	Mean wind direction.		
	Actual, September 1900.	Normal, September.	Westerly deflection.
	°	°	°
Mount Abu	S 70 W	S 73 W	− 3
Pachmarhi	N 44 W	N 59 W	−15
Chikalda	N 9 W	N 23 W	−14
Wellington	S 53 W	S 56 W	− 3

At Perim the wind blew from north by west on the mean of the month instead of from north-east, but at Aden the direction was about normal, as is shown below :—

Station.	Mean wind direction.	
	Actual, September 1900.	Normal, September.
	°	°
Perim	N 6 W	N 42 E
Aden	S 21 E	S 23 E

In the South-East Trades region the variations of the wind direction from the normal were irregular. Thus at Zanzibar the wind blew from S 2° W instead of S 8° E, while at the Seychelles, on the contrary, the direction was 10° more easterly than the average. The following gives comparative data :—

Station.	Mean wind direction.	
	Actual, September 1900.	Normal, September.
	°	°
Zanzibar	S 2 W	S 8 E
Seychelles	S 51 E	S 41 E

The preceding discussion shows the winds were generally about normal over the Peninsula, more easterly than usual in Northern India, and more westerly than usual over the Bay.

The following table gives comparative data of the mean air movement for the various provinces based on table I:—

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Burma	82	86	— 4
Assam	74	67	+ 7
Bengal	106	115	— 9
Orissa	158	125	+ 33
Bihar	158	65	+ 93
Chota Nagpur	134	168	— 34
North-Western Provinces and Oudh.	77	72	+ 5
Punjab	86	55	+ 31
Sind	202	245	— 43
Rajputana	122	151	— 29
Gujarat	199	233	— 34
Central India	106	144	— 38
Central Provinces	134	101	+ 33
Berar	235	122	+113
West Coast	156	178	— 22
Bombay Deccan	281	274	+ 7
Mysore	185	161	+ 24
Madras Coast	180	132	+ 48
Madras Deccan	238	197	+ 41
South India	118	125	— 7

Humidity and Cloud.

The mean humidity conditions of the month differed very considerably from the normal. Over the Bay Islands, Burma, the extreme north-east of India, the West Coast and the Bombay Deccan the air was drier than usual, while in all other parts of the country it was damper. The amount of the excess increased inland and was greatest over the inland parts of North-West India. The excess was more than 5 at the stations for which comparative data are given below:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Lahore	·848	·714	+·134	77	57	+20
Ludhiana	·845	·755	+·090	81	66	+15
Peshawar	·757	·592	+·165	66	54	+12
Meerut	·853	·762	+·091	83	70	+13
Jaipur	·809	·683	+·126	77	64	+13
Roorkee	·794	·768	+·026	79	72	+ 7
Dehra Dun	·721	·698	+·023	84	78	+ 6
Deesa	·810	·723	+·087	74	66	+ 8
Nagpur	·824	·767	+·057	82	75	+ 7
Khandwa	·796	·741	+·055	81	75	+ 6
Mysore	·646	·595	+·051	77	71	+ 6

The preceding data show that the largest excess was over the East Punjab where it was exceptionally large.

The deficiency was generally small, but was considerable over parts of the Bombay Deccan. The following gives data for the stations at which the deficiency, on the mean of the month, amounted to 5 or more:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Bellary	·596	·654	—·058	57	64	—7
Sholapur	·648	·662	—·014	65	70	—5

A reference to the rainfall table on pages 618 and 619 will show that these areas of greatest excess and deficiency of humidity agree with the areas of greatest excess and defect of rainfall relatively to the normal.

At Port Blair and at the Burma stations the absolute humidity of the month was in slight excess, but the mean temperature was also in excess and the relative humidity

was in slight defect.. The following gives comparative data for this region :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Port Blair . .	·909	·893	+·016	86	87	—1
Rangoon . .	·899	·893	+·006	87	89	—2
Diamond Island .	·895	·871	+·024	84	87	—3

In Bengal, Orissa and the Gangetic Plain the variations of both absolute and relative humidities were generally small, but the mean temperature was generally low and the relative humidity was hence generally in excess. The following gives data for these two provinces :—

Province or Division.	Station.	Absolute Humidity.			Relative Humidity.		
		Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
		"	"	"	%	%	
Bengal and Orissa	Chittagong .	·907	·916	—·009	84	86	—2
	Calcutta .	·930	·943	—·013	86	86	0
	Saugor Island	·960	·976	—·016	87	86	+1
	False Point .	·942	·929	+·013	85	84	+1
Gangetic Plain	Hazaribagh .	·748	·754	—·006	85	84	+1
	Darbhanga .	·906	·935	—·029	83	82	+1
	Allahabad .	·893	·884	+·009	82	79	+3

In the Upper Sub-Himalayas division the absolute humidity was in slight to large excess—more particularly at Lahore—and as the mean temperature was considerably lower than usual, the relative humidity was in large to very large excess. This is shown below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Dehra Dun . .	·721	·698	+·023	84	78	+ 6
Roorkee . .	·794	·768	+·026	79	72	+ 7
Meerut . . .	·853	·762	+·091	83	70	+13
Lahore . . .	·848	·714	+·134	77	57	+20
Ludhiana . .	·845	·755	+·090	81	66	+15

In the Indus Valley the variations from the normal were irregular. At Peshawar the absolute humidity, as in other parts of Northern India, was in very large excess, but the mean temperature was also in considerable excess, so that the relative humidity only exhibited large excess. At Jacobabad the excess of the absolute humidity, though large, was not so large as at Peshawar, while, on the contrary, the temperature excess was more than twice as great, so that the relative humidity was in only slight excess, while at Kurrachee, where the excess of the absolute humidity was only slight and the excess of temperature was large, the relative humidity was in slight defect. The following gives comparative data for these three stations :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Peshawar . . .	·757	·592	+·165	66	54	+12
Jacobabad . . .	·820	·690	+·130	56	52	+ 4
Kurrachee . . .	·873	·841	+·032	74	77	— 3

Over Rajputana both the absolute and relative humidities were in considerable to large excess. This is shown below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, September 1900.	Normal September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Jaipur	·809	·683	+·126	77	64	+13
Deesa	·810	·723	+·087	74	66	+ 8

The following gives comparative data for the Bay Islands, Burma and the different divisions of Northern India :—

Province or Division.	Mean absolute humidity.			Mean relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Bay Islands . . .	·902	·892	+·010	85	87	− 2
Burma . . .	·987	·972	+·015	86	89	− 3
Bengal . . .	·932	·945	−·013	86	86	0
Orissa	·942	·929	+·013	85	84	+ 1
Chota Nagpur . .	·748	·754	−·006	85	84	+ 1
Bihar	·906	·935	−·029	83	82	+ 1
North-Western Provinces	·815	·778	+·037	82	75	+ 7
Punjab . . .	·817	·687	+·130	75	59	+16
Sind	·847	·766	+·081	65	64	+ 1
Rajputana . . .	·810	·703	+·107	76	65	+11

The preceding data show normal or slightly deficient relative humidities over the Bay Islands, Burma and North-East India on the one hand and over Sind on the other, while the intervening area was occupied by more or less excessive humidities.

In the Deccan the absolute humidity was about normal or in moderate to slight excess, on the mean of the month, at all stations except Sholapur. Consequently at that place where temperature was in excess relative humidity was in moderate defect. The following gives comparative data for the Deccan stations :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Belgaum . .	·657	·641	+·016	84	85	−1
Sholapur . .	·648	·662	−·014	65	70	−5
Poona . . .	·680	·666	+·014	77	76	+1
Akola . . .	·768	·739	+·029	76	74	+2
Buldana. . .	·680	·680	0	78	78	0
Khandwa . .	·796	·741	+·055	81	75	+6
Nagpur . . .	·824	·767	+·057	82	75	+7
Hyderabad (Deccan)	·745	·735	+·010	79	78	+1

Along the West-Coast the absolute humidity was higher than usual by small amounts, but the mean temperature was in excess and the relative humidity lower than usual. This is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Bombay . . .	·876	·865	+·011	83	85	−2
Karwar . . .	·827	·817	+·010	83	86	−3

In South India the air was damper than usual except at Bellary where the absolute and relative humidities were in considerable defect. The following gives data for this station :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Bellary . . .	·596	·654	−·058	57	64	−7

At the remaining stations in this division the relative humidity was in excess, as is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Salem . . .	·797	·764	+·033	74	72	+2
Chitaldroog . .	·638	·592	+·046	73	69	+4
Bangalore . .	·639	·603	+·036	79	76	+3
Hassan . .	·622	·578	+·044	80	76	+4
Mysore . .	·646	·595	+·051	77	71	+6
Madras . .	·861	·823	+·038	75	73	+2

The following gives data for the different divisions of the Peninsula :—

Province or Division.	Mean absolute humidity.			Mean relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Central Provinces	·810	·754	+·056	82	75	+7
Berar	·724	·709	+·015	76	75	+1
Bombay Deccan	·662	·657	+·005	75	77	—2
West Coast	·852	·841	+·011	83	86	—3
Mysore	·636	·592	+·044	77	73	+4
Madras Deccan	·671	·695	—·024	68	71	—3
Madras Coast	·861	·823	+·038	75	73	+2
South India	·779	·746	+·033	74	72	+2

The preceding data show that over the west of the Peninsula and particularly over the Sholapur district of Bombay and the Bellary district of Madras the air was generally drier than usual, but that all over the Central Provinces and the east of the Peninsula the relative humidity was in excess.

At most of the Himalayan hill stations the air, on the mean of the month, was slightly to considerably damper than usual, but at the two eastern stations of Katmandu and Darjeeling the relative humidity was less than usual. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual, from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Leh	·208	·172	+·036	44	41	+ 3
Srinagar	·632	·493	+·139	84	78	+ 6
Kailang	·302	·245	+·057	63	59	+ 4
Simla	·458	·441	+·017	88	78	+10
Chakrata	·484	·472	+·012	91	84	+ 7
Ranikhet	·519	·508	+·011	85	81	+ 4
Katmandu	·637	·631	+·006	78	79	— 1
Darjeeling	·454	·478	—·024	90	94	— 4

At the central and southern hill stations the air was everywhere damper than usual. The excess of the relative humidity was considerable at Mount Abu and Pachmarhi, moderate at Chikalda and very slight at Wellington. This is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
	"	"	"	%	%	
Mount Abu	·599	·547	+·052	87	77	+10
Pachmarhi	·668	·624	+·044	92	82	+10
Chikalda	·664	·629	+·035	95	89	+ 6
Wellington	·464	·428	+·036	77	76	+ 1

At Aden the air was slightly drier and at Perim considerably damper than usual, while in the South-east Trades region the variations from the normal were slight.

The chief features of the humidity conditions of the month were :—

(1) The slight to moderate deficiency over the western half of the Peninsula.

(2) The slight deficiency over Burma, Assam and East Bengal.

(3) The general excess over the remainder of India.

(4) The very large excess over the Punjab and Rajputana.

As the larger variations of the humidity conditions and cloud amount were due to the same causes, *viz.*, the vigorousness of the Bay current and its determination to Northern India and the weakness of the Arabian Sea current they were similar in general character over the greater part of the country.

Thus the cloud amount was normal or below the normal over part of Burma. The following gives data for this province :—

Station.	Mean cloud amount.		
	Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Rangoon	7·4	8·2	—0·8
Diamond Island	7·7	7·5	+0·2
Akyab	6·4	7·2	—0·8

There was also less cloud than usual over the Lower Indus Valley and along the West Coast. The following gives data for this are:—

Province or Division.	Station.	Mean cloud amount. Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Lower Indus Valley	Kurrachee	3·4	3·8	—0·4
West Coast	Bombay	6·6	7·4	—0·8
	Karwar	5·5	5·7	—0·2
	Poona	7·6	7·7	—0·1

Over the remainder of India the cloud amount was in excess. The excess was small or slight over the Peninsula, but was moderate to large over Northern India, and was greatest over the East Punjab and the east of Rajputana, where it will be remembered the humidity was also in greatest excess. The following gives comparative data for the stations at which the excess amounted to 2·0 or more :—

Station.	Mean cloud amount. Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Jaipur	7·0	4·0	+3·0
Debra Dun	7·4	4·8	+2·6
Ludhiana	5·6	3·0	+2·6
Lahore	4·0	1·5	+2·5
Meerut	6·0	3·7	+2·3
Roorkee	5·9	3·8	+2·1

The following gives data for the different divisions of Northern India and for Burma :—

Province or Division.	Mean cloud amount. Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Burma	7·2	7·7	—0·5
Bengal	7·6	7·1	+0·5
Orissa	8·1	7·0	+1·1
Chota Nagpur	9·7	8·0	+1·7
Bihar	6·1	5·3	+0·8
North-Western Provinces	6·6	4·4	+2·2
Punjab	4·1	2·0	+2·1
Sind	2·1	2·2	—0·1
Rajputana	6·4	4·4	+2·0

As mentioned above, there was more cloud than usual on the mean of the month over the whole of the centre and east of the Peninsula. The excess was generally greatest at the most inland stations and exceeded 1·0 at the places for which data are given below :—

Station.	Mean cloud amount. Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Bangalore	8·1	6·3	+1·8
Buldana	8·4	6·6	+1·8
Khandwa	7·1	5·5	+1·6
Mysore	9·0	7·6	+1·4
Bellary	8·6	7·5	+1·1
Hyderabad (Deccan)	7·4	6·3	+1·1
False Point	8·1	7·0	+1·1

The following gives comparative data for the different Peninsular divisions :—

Province or Division.	Mean cloud amount. Actual, September 1900.	Normal, September.	Variation of actual from normal, September 1900.
Central Provinces	7·7	6·4	+1·3
Berar	7·7	6·6	+1·1
Bombay Deccan	7·9	7·8	+0·1
West Coast	6·1	6·6	—0·5
Mysore	8·5	7·4	+1·1
Madras Deccan	8·0	6·9	+1·1
Madras Coast	6·8	6·1	+0·7
South India	6·5	5·6	+0·9

The above shows that the cloud amount was in defect along the West Coast where the monsoon was light, in moderate excess at the stations in the interior of the country, and in slight excess along the East Coast. The principal features of the cloud distribution during the month were as follows :—

(1) The cloud amount was normal or in slight defect in Burma and along the West Coast.

(2) The cloud amount was in excess of the average over the remainder of India.

(3) The excess was generally slight over the Peninsula and generally considerable to large over Northern India.

(4) The excess was greatest over Eastern Rajputana

Rainfall.

The general rainfall of India for the month under review was in considerable to large excess. There were, however, considerable local variations in the rainfall due to the following causes. Owing to the distribution of pressure, a portion of the Bay monsoon current was determined towards Tenasserim and Lower Burma, and those areas received excessive rain apparently at the cost of Upper Burma, Assam and a large part of Bengal. Another and very vigorous portion of the Bay current was deflected more than usual towards the Gangetic Plain and Upper India, with the result that the whole of West Bengal, the North-Western Provinces and the Punjab received very excessive rainfall. The east of the Peninsula also received slightly excessive rain. The Bombay or Arabian Sea monsoon was less vigorous than that from the Bay, and the interior and north of the Bombay Presidency received less rain than usual during the month. On the other hand, over the central parts of the country and in Rajputana, where the monsoon current came under the influence of the cyclonic storms from the Bay, the current parted with more moisture and those regions received more than the usual rainfall.

The following gives a very brief statement of the periods of most general rainfall:—

1st.—The 1st to the 8th, when the greater part of the country received rain, the fall having been moderate to heavy in the north and centre and light over the Peninsula.

2nd.—The 10th to the 14th, when North-Western and Central India, the Peninsula and Burma received general rain, while the weather in the north-east was fine.

3rd.—The 16th to the 28th, when the greater part of the country, except the extreme north-west of India, the south of the Peninsula and Burma, received rain from the cyclonic storm of that period.

On the 29th and 30th hardly any rain was received throughout the country.

The average actual rainfall of the month exceeded 29 inches in Tenasserim and Deltaic Bengal, while it was less than 2 inches in amount in the West Punjab, Sind and Baluchistan.

The rainfall of the month was normal or in excess over the whole of India with the exception of the following areas:—

1st.—Upper Burma, Cachar, the Assam hills, the Assam Valley, North Bengal and the Bengal hills. The deficiency over this area was moderate to considerable in amount and was over 50°/₀ in the Assam hills.

2nd.—The interior of the west of the Peninsula including the Bombay Deccan and Khandesh. The deficiency in this area was moderate to small.

3rd.—North Bombay including Gujarat, Kathiawar and Sind. The deficiency in this case was moderate.

The excess was very large (exceeding 100°/₀) in the following divisions:—

Deltaic Bengal;
the West of the North Western-Provinces;
the South-East Punjab;
the South Punjab;
the Central Punjab;
the Submontane Punjab;
the North Punjab;
the West Punjab;
the East of the Central Provinces;
East Rajputana;
West of Central India and
West Rajputana.

The absolutely greatest excess was reported from the South Punjab (+253°/₀) and Deltaic Bengal (+244°/₀).

The following table gives mean actual, mean normal, and variation rainfall data for the 51 meteorological divisions or districts into which India is divided.

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, September 1900.	Average normal, September.	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim*	...	...	29·71	23·57	+6·14
	Lower Burma (Deltaic)*	...	...	16·59	13·28	+3·31
	Central ditto*	...	...	11·98	8·71	+3·27
	Upper ditto*	...	...	6·70	8·77	−2·07
	Arakan*	...	...	19·77	20·03	−0·26

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Province.	Division.	Number of rainy days. Average actual, September 1900.	Number of rainy days. Average normal, September.	Rainfall. Average actual, September 1900.	Rainfall. Average normal, September.	Rainfall. Variation of actual from normal, September 1900.
				Inches.	Inches.	Inches.
Bengal and Assam	Eastern Bengal	10·6	12·8	9·78	11·04	−1·26
	Assam (Surma)*	...	...	10·16	20·19	−10·03
	Do. (Hills)*	...	...	10·35	22·02	−11·67
	Do. (Brahmaputra)*	...	...	5·98	10·70	−4·72
	Deltaic Bengal	15·5	11·8	29·21	8·50	+20·71
	Central do.	14·9	11·5	15·22	9·35	+5·87
	North do.	11·8	12·5	11·36	15·79	−4·43
	Bengal Hills	13·3	16·9	12·84	19·53	−6·69
	Orissa	15·9	12·8	16·99	10·69	+6·30
	Chota Nagpur	16·9	11·0	16·19	8·29	+7·90
	Bihar (South)	11·6	9·0	8·97	6·94	+2·03
	Do. (North)	10·8	9·6	11·99	9·78	+2·21
North-Western Provinces and Oudh.	North-Western Provinces (East)	12·3	8·1	9·41	6·89	+2·52
	Oudh (South)	11·8	7·4	9·42	6·52	+2·90
	Do. (North)	10.2	7·2	9·93	7·22	+2·71
	North-Western Provinces (Central)	12·3	6·5	7·54	5·50	+2·04
	Do. do. (West)	10·4	4·8	10·35	4·62	+5·73
	Do. do. (East Submontane)	8·8	7·9	12·67	7·91	+4·76
	Do. do. (West do.)	11·1	6·3	10·98	7·29	+3·69
	Do. do. (Hills)	12·1	9·4	9·04	8·00	+1·04
Punjab	Punjab (South-East)	10·9	4·1	13·06	4·20	+8·86
	Do. (South)	7·6	2·9	8·40	2·38	+6·02
	Do. (Central)	6·6	2·5	6·35	2·33	+4·02
	Do. (Submontane)	9·3	3·7	9·76	3·89	+5·87
	Do. (Hills)	12·1	7·4	11·74	6·40	+5·34
	Do. (North)	6·1	2·7	5·63	1·94	+3·69
	Do. (West)	2·7	1·2	1·73	0·84	+0·89
Bombay and Malabar Coast Districts (Madras).	Malabar	17·1	14·0	10·09	9·30	+0·79
	Travancore	9·2	...	5·13	...	...
	Madras (South Central)	9·8	6·7	6·68	4·63	+2·05
	Coorg	17·5	...	8·16	...	...
	Mysore*	...	...	4·56	4·94	−0·38
	Konkan	21·0	16·8	16·19	14·96	+1·23
	Bombay Deccan	5·6	8·4	3·63	5·53	−1·90
	Khandesh	9·4	9·2	5·94	6·97	−1·03
Central Provinces and Berar.	Berar*	...	...	8·11	7·12	+0·99
	Central Provinces (West)	14·2	9·5	14·13	8·80	+5·33
	Do. (Central)	16·3	9·7	14·42	7·95	+6·47
	Do. (East)	18·1	9·5	18·27	7·57	+12·70
Bombay (North)	Gujarat	8·6	8·3	5·53	8·03	−2·50
	Kathiawar and Cutch	6·9	4·4	4·15	4·70	−0·55
	Sind	0·8	...	0·33	0·48	−0·15
	Baluchistan Hills	0·5	...	0·24	0·15	+0·09
Rajputana and Central India.	Central India (East)	13·9	...	9·27	7·07	+2·20
	Rajputana (East), Central India (West)	11·1	...	9·24	3·80	+5·44
	Do. (West)	5·2	...	4·76	1·53	+3·23
Madras	East Coast (North)	11·9	10·0	8·63	7·59	+1·04
	Hyderabad (South)*	...	...	5·23	...	...
	Madras (Central)	8·9	7·5	6·06	5·30	+0·76
	East Coast (Central)	9·7	6·8	6·02	4·43	+1·59
	Do. (South)	9·2	6·8	6·90	5·34	+1·56
	Madras (South)	4·9	3·5	2·64	2·15	+0·49

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

In Burma there were light general showers between the 1st and the 4th. After the latter date the showers fell off both in amount and extent and only light scattered occasional showers were reported between the 5th and the 10th. On the 10th heavy rain commenced in Tenasserim. This heavy to very heavy rain continued till the 12th when it spread northward into Lower Burma. General rain, except in Upper Burma, was received during the 13th, 14th and 15th, and on the 16th and three subsequent days the rains extended into Upper Burma and hence prevailed throughout the whole province. On the 20th the rainfall ceased in Upper Burma and on the 22nd in all parts of the province and, except in Tenasserim and Lower Burma, did not recommence before the end of the month. The total rainfall of the month was in moderate to considerable excess over Tenasserim, Deltaic Burma, and Central Burma, was in moderate defect in Upper Burma and was normal in Arakan.

The following gives the rainfall data of the month for the different divisions:—

Division.	Rainfall.			
	Average actual September 1900.	Average normal September	Variation of actual from normal September.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim . . .	29·71	23·57	+6·14	+26
Lower Burma . .	16·59	13·28	+3·31	+25
Central Burma . .	11·98	8·71	+3·27	+38
Upper Burma . .	6·70	8·77	—2·07	—24
Arakan . . .	19·77	20·03	—0·26	— 1

Very little rain fell throughout the month in Assam. The 1st was generally fine. On the 2nd, showers commenced and continued steadily until the 10th, the fall of rain having been heavy on the 5th and 6th. On the 11th, when the depression was developing over the Bay and the winds were drawing into east and north-east over North-East India, the weather cleared and there was practically no rain over Assam from the 11th to the 16th. On the 16th the depression lay at the head of the Bay and the weather became showery again over North-East India, but on the 17th, the showers ceased and the weather was fine from the 18th to the close of the month with the exception of some local showers on the 26th. The total rainfall of the month was in consequence very light, the Surma Valley receiving only half and the hill division less than half the normal amount for the month. A noteworthy feature was the unusually light rainfall at Cherrapoonjee. That station received a total of only 23·39″ or 22·10″ less than the normal amount. The total rainfall from the 1st of June to the end of September at that station amounted to 293·20″ instead of 322·77″ the normal during that period. The season was hence a very dry one in the Assam Hills.

There were three periods of general rain in Bengal, the first from the 1st to the 10th, the second from the 16th to the 26th and on the 29th; while in Bihar the rainfall occurred between the 6th and the 10th, the 16th and the 21st and the 26th and the 29th.

During the first fall between the 1st and the 10th the rainfall occurred under normal monsoon conditions, with southerly and south-easterly winds and the falls were generally moderate. On the 11th when the principal depression of the month began to develop over the centre of the Bay rain took off in Bengal and there was practically no rain until the 15th, when rain commenced to fall heavily in Orissa. On this day the depression was shown near the Sandheads and for the next ten days heavy rain was received in some part of the province. During the early days of the storm, when the centre lay over South-West Bengal and the east of the Central Provinces, the heaviest rainfall occurred in Deltaic Bengal, while during the last days of the storm after it had completed its course through the Central Provinces and the North Western Provinces and was breaking up in West Bengal, the rainfall was heaviest in Bihar and North Bengal. The final burst of rain on the 29th was apparently connected with a small depression which lay off the Sand-heads on that day.

In South-West Bengal, as mentioned above, the rainfall of the first rainfall period was not very heavy, but the following amounts exceeding 3 inches in 24 hours were recorded on the 7th and 8th:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Burdwan . .	Mankur . . .	7th September.	3·58
Bankura . .	Raipur . . .	8th ,, .	4·48
	Vishnupur . . .	,, ,, .	3·65
	Khatra . . .	,, ,, .	3·50

The second fall, lasting from the 16th to the 26th, was, however, perhaps the heaviest on record for this division and was noticeable alike for the very heavy rain and for the long period of very heavy rain. The largest amounts were recorded on the 19th, 20th and 21st and the following amounts exceeding 10 inches in 24 hours were recorded on these dates :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KHULNA	Kaliganj	19th September	10·30
	Morellganj	,, ,,	10·25
JESSORE	Bangaon	20th ,,	17·27
24-PARGANAS	Diamond Harbour	,, ,,	16·73
	Alipore Observatory	,, ,,	14·53
HOWRAH	Howrah	,, ,,	14·05
KHULNA	Rampal	,, ,,	13·05
24-PARGANAS	Basirhat	,, ,,	12·89
HOOGHLY	Serampore	,, ,,	12·31
24-PARGANAS	Budge-Budge	,, ,,	12·25
NADIA	Krishnagar	,, ,,	11·57
KHULNA	Satkhira	,, ,,	11·00
24-PARGANAS	Barasat	,, ,,	10·90
MIDNAPORE	Kukrahaty	,, ,,	10·82
24-PARGANAS	Barrackpore	,, ,,	10·78
	Dum-Dum	,, ,,	10·72
HOOGHLY	Serampore	21st ,,	16·65
24-PARGANAS	Dum-Dum	,, ,,	11·34
	Alipore Observatory	,, ,,	10·83
HOWRAH	Howrah	,, ,,	10·13

This extremely heavy rain occurring over a wide area and continuing for several days did much damage and occasioned widespread floods. In the appendix will be found the newspaper accounts describing the extent of the calamity.

In North-Bengal rain fell generally between the 6th and the 10th when 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.
COOCH BEHAR	Cooch Behar	6th September	4·68
	Mathabhanga	,, ,,	4·39
DARJEELING	Mungpoo	7th ,,	11·31
	Siliguri	,, ,,	7·55
	Darjeeling	,, ,,	7·39
	Kurseong	,, ,,	6·07
DINAJPUR	Nawabganj	,, ,,	4·40
RANGPUR	Ulipur	10th ,,	9·05
DINAJPUR	Setabganj	,, ,,	8·50
JALPAIGURI	Jalpaiguri	,, ,,	4·97
DINAJPUR	Ramganj	,, ,,	4·65
	Thakoorgaon	,, ,,	4·65
	Churaman	,, ,,	4·22
RANGPUR	Sunderganj	,, ,,	4·07

On the 20th and 21st when, however, only the following falls exceeding 3 inches were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
RAJSHAHI	Boalia	20th September	3·90
	Lalpur	,, ,,	3·85

and from the 26th to the 29th when the following falls exceeding 2 inches were registered :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DINAJPUR	Nithpur	29th September	2·90
	Dinajpur	,, ,,	2·79
RAJSHAHI	Lalpur	,, ,,	2·60
BOGRA	Nowkhilla	,, ,,	2·35
DINAJPUR	Ramganj	,, ,,	2·11
RAJSHAHI	Mahadebpur	,, ,,	2·04

In East Bengal the rain fell between the 1st and the 9th and the 16th and the 21st. During the earlier rainfall period the fall was light and generally unimportant, but in

the second period the amounts were much larger, as is shown in the following table which gives the falls of over 5″ in 24 hours :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BACKERGUNGE	Bauphal	18th Sept.	6·66
	Do.	19th "	13·30
	Patuakhali	" "	12·05
	Pirojpur	" "	8·75
	Barisal	" "	8·42
	Daulatkhan	" "	7·63
	Bhola	" "	7·61
	Gaurnadi	" "	6·00
FARIDPUR	Madaripur	" "	6·00
NOAKHALI	Lakhipur	" "	5·50
BACKERGUNGE	Pirojpur	20th "	5·87

Bihar received moderate rain between the 6th and the 11th, and between the 16th and the 22nd, and a heavy fall between the 25th and the 28th. Amounts exceeding 4″ in 24 hours were recorded at the following places during the first fall :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MONGMYR	Gogri	6th Sept.	4·25
BHAGALPUR	Bhagalpur	" "	4·06
PURNEA	Araria	7th "	4·61
SONTHAL PARGANAS	Assonboni	" "	4·20
PURNEA	Kaliaganj	" "	4·10
MALDA	Chanchal	8th "	4·40
SONTHAL PARGANAS	Mohagama	" "	4·05
PURNEA	Kishanganj	10th "	7·35
DARBHANGA	Tajpur	" "	5·65
PURNEA	Barsoe	" "	5·50
DARBHANGA	Madhubani	" "	4·63
	Darbhanga	" "	4·52
SHAHABAD	Bhabhua	" "	4·10
MONGHYR	Khargpur	11th "	7·20

During the third rainfall period the fall was both more extensive and heavier than during the two preceding, and the following amounts exceeding 5″ were registered :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SONTHAL PARGANAS	Sahibganj	25th Sept.	7·64
		26th "	7·14
PURNEA	Purnea	" "	5·10
	Forbesganj	27th "	5·40
GAYA	Arwal	" "	5·30
MUZAFFARPUR	Hazipur	28th "	8·18
CHAMPARAN	Motihari	" "	6·58
	Burhurwa	" "	6·47
	Bettiah	" "	6·20
BHAGALPUR	Supaul	" "	5·62
PURNEA	Purnea	" "	5·60
MUZAFFARPUR	Sitamarhi	" "	5·59
SARAN	Amnaur	" "	5·50
	Chapra	" "	5·27
CHAMPARAN	Bagaha	" "	5·22
MUZAFFARPUR	Paru	" "	5·20
PURNEA	Gondwara	" "	5·15

In Chota Nagpur showers occurred during the first week. General rain commenced on the 7th and continued until the 11th, and a second burst of general rain prevailed from the 16th to the 26th. This province lay outside the path of the storm both during its advance westward and its return eastward, and there were no very heavy falls of rain such as were registered in other parts of Bengal, but the following falls exceeding 4″ in 24 hours were recorded :—

DISTIRCT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PALAMAU	Ranka	9th Sept.	4·85
MANBHUM	Barahabhum	10th "	4·80
ANGUL	Angul	18th "	4·75
MANBHUM	Barahabhum	20th "	4·70
RANCHI	Lohardaga	21st "	5·40
HAZARIBAGH	Hazaribagh	" "	4·14
MANBHUM	Purulia	22nd "	4·75
SINGBHUM	Ghatsila	" "	4·20
ANGUL	Dhonkanal	24th "	5·02
SINGBHUM	Baharagura	" "	4·92
ORISSA TRIBUTARY MAHALS	Anandpur	" "	4·10
RANCHI	Sirguja	25th "	4·50
	Chainpur	26th "	4·07
	Sirguja	27th "	6·30

Orissa had three periods of rainfall, the first lasting from the 1st to the 5th, the second from the 15th to the 20th, and the third from the 23rd to the 29th. Heavy falls of rain were received during both the second and the third periods, the following having been the largest falls in 24 hours :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CUTTACK	Dharmsala	16th Sept.	5·55
	Jajpur	17th "	4·87
	Cuttack	" "	3·96
BALASORE	Akhyapada	" "	3·35
	Chandbali	" "	3·31
CUTTACK	Kendrapara	18th "	5·40
BALASORE	Akhyapada	" "	3·45
	Baripada	19th "	3·90
	Soro	23rd "	7·58
PURI	Puri	" "	3·86
BALASORE	Chandbali	" "	3·57
CUTTACK	Dharmsala	" "	3·45
BALASORE	Baripada	" "	3·40
PURI	Ranpur	" "	3·38
CUTTACK	False Point	" "	3·21
	Cuttack	" "	3·11
	Banki	24th "	10·50
PURI	Ranpur	" "	8·65
BALASORE	Baripada	" "	5·02
	Chandbali	" "	4·84
CUTTACK	Cuttack	" "	4·06
	False Point	" "	3·45
BALASORE	Bhadrak	" "	3·27
	Balasore	" "	3·15
CUTTACK	Banki	25th "	3·82
BALASORE	Baripada	" "	3·16

The total rainfall of the month was in defect in the Bengal hills and North Bengal, normal in East Bengal, and in excess in the remaining divisions. The excess was greatest, both absolutely and relatively, in Deltaic Bengal where the average actual rainfall of the month was 29·21", while the average normal is only 8·50". The following gives comparative data for the different districts of this division :—

DIVISION.	DISTRICT.	RAINFALL. Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
DELTAIC BENGAL	Midnapore	22·57	8·51	+14·06	+156
	Hooghly	29·82	8·06	+21·76	+270
	Howrah	33·59	8·06	+25·53	+317
	24-Parganas	39·97	8·94	+31·03	+347
	Nadia	22·14	8·15	+13·99	+172
	Jessore	25·01	7·81	+17·20	+220
	Khulna	31·23	8·85	+22·38	+253
	Faridpur	13·60	8·16	+ 5·44	+ 67

The following gives comparative data for the nine divisions of the province :—

DIVISION.	Average actual, September 1900.	RAINFALL. Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.	NUMBER OF RAINY DAYS. Average actual, September 1900.	Average normal, September.
	Inches.	Inches.	Inches.			
Eastern Bengal	9·78	11·04	— 1·26	— 11	10·6	12·8
Deltaic "	29·21	8·50	+20·71	+244	15·5	11·8
Central "	15·22	9·35	+ 5·87	+ 63	14·9	11·5
North "	11·36	15·79	— 4·43	— 28	11·8	12·5
Bengal Hills	12·84	19·53	— 6·69	— 34	13·3	16·9
Orissa	16·99	10·69	+ 6·30	+ 59	15·9	12·8
Chota Nagpur	16·19	8·29	+ 7·90	+ 95	16·9	11·0
South Bihar	8·97	6·94	+ 2·03	+ 29	11·6	9·0
North Bihar	11·99	9·78	+ 2·21	+ 23	10·8	9·6

In the North-Western Provinces the rainfall distribution was somewhat irregular. In Oudh there were more

or less general showers on the 1st and 2nd, between the 7th and the 12th, between the 20th and the 22nd, and finally between the 26th and the 28th. The falls were heaviest on the 7th, 8th and the 27th and the following amounts exceeding 3″ in 24 hours were recorded about those dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bahraich	Bahraich	7th September	6·45
Hardoi	Sandila	" "	5·10
Sitapur	Misrikh	" "	4·80
Hardoi	Hardoi	" "	4·68
Gonda	Gonda	8th "	4·42
Bahraich	Kaisarganj	" "	3·79
	Bahraich	" "	3·74
Gonda	Tarabganj	" "	3·40
Partabgarh	Patti	27th "	7·20
Fyzabad	Tanda	" "	5·62
Sultanpur	Amethi	" "	4·57
Fyzabad	Akbarpur	" "	4·24
Sultanpur	Musafirkhana	" "	4·16
Partabgarh	Partabgarh	" "	4·15
Fyzabad	Fyzabad	" "	4·00
	Bikapur	" "	3·65
Rai Bareli	Salon	" "	3·60
Gonda	Gonda	" "	3·45
"	Tarabganj	" "	3·45
Fyzabad	Jalalpur	" "	3·35
Sultanpur	Sultanpur	" "	3·06
	Kadipur	" "	3·06
Gonda	Utraula	28th "	4·96

In the east of the North-Western Provinces there were slight breaks in the rains between the 3rd and the 5th and between the 13th and the 15th and the rains ceased on the 29th. With these exceptions rain continued throughout and on the 27th the fall was very heavy. The following gives the heaviest falls recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jaunpur	Jaunpur	27th September	8·34
Benares	Chandauli	" "	6·12
Jaunpur	Keraket	" "	5·31
	Mariahu	" "	5·27
Mirzapur	Chunar	" "	5·20
Ghazipur	Sayyidpur Bhitari	" "	5·00
Benares	Benares	" "	4·94
Jaunpur	Machhlishahr	" "	4·60
	Kutaban	" "	4·58
Benares	Gangapur	" "	4·33
Mirzapur	Chakia	" "	4·14
	Robertsganj	" "	3·77
Ghazipur	Muhammadabad	" "	3·55

In the central division there was general rain between the 5th and the 15th and on the 27th and 28th, but the amounts were not large and exceeded 3″ only at the following places on the following dates :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Banda	Mau	2nd September	3·02
	Kamasin	5th "	4·20
Hamirpur	Bela-Thal	11th "	4·42
Banda	Badausa	" "	3·56
Hamirpur	Mahoba	" "	3·02
Mainpuri	Gopalpur	14th "	4·50
Banda	Badausa	27th "	3·58
Mainpuri	Bhongaon	" "	3·13

In the Jhansi district of the western division rain was reported more or less throughout the month, but in the remaining districts there were showers up to the 20th

after which the weather cleared. Amounts exceeding 3″ were recorded at the following places :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
JHANSI	Magarwara	1st September	3·06
BULANDSHAHR	Dayanatpur	4th ,,	3·30
ALIGARH	Iglas	7th ,,	3·54
MEERUT	Ghaziabad	14th ,,	5·80
	Hapur	,, ,,	5·22
ALIGARH	Atrauli	,, ,,	4·90
MEERUT	Hapur	,, ,,	4·87
	Meerut	,, ,,	4·65
BULANDSHAHR	Sikandrabad	,, ,,	4·53
MEERUT	Mawana	,, ,,	4·36
	Ghaziabad	,, ,,	4·30
MUTTRA	Chata	,, ,,	4·28
BULANDSHAHR	Bulandshahr	,, ,,	4·15
MUTTRA	Sardhana	,, ,,	4·10
	Baghpat	,, ,,	3·80
BULANDSHAHR	Anupshahr	,, ,,	3·67
ALIGARH	Aligarh	,, ,,	3·25
BULANDSHAHR	Khurja	,, ,,	3·21
ALIGARH	Balanpur	15th ,,	6·60
	Khair	,, ,,	3·34
MEERUT	Hapur	20th ,,	4·60
	Hapur	,, ,,	4·35
BULANDSHAHR	Khurja	,, ,,	4·25

In the sub-montane division there were five bursts of rainfall, the first between the 1st and the 4th, the second between the 7th and the 9th, the third between the 13th and the 15th, the fourth between the 19th and the 21st, and the fifth from the 26th to the 28th. The heaviest rainfall occurred between the 13th and 15th when the following amounts exceeding 3″ in 24 hours were registered :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BAREILLY	Mirganj	14th September	5·85
BUDAUN	Dataganj	,, ,,	5·74
	Bisauli	,, ,,	5·25
BAREILLY	Choreli	,, ,,	5·00
MURADABAD	Sambhal	14th September	4·90
	Hasanpur	,, ,,	4·69
BAREILLY	Karor	,, ,,	4·52
	Nawabganj	,, ,,	3·89
	Aonla	,, ,,	3·71
MURADABAD	Bilhari	,, ,,	3·52
BAREILLY	Baheri	,, ,,	3·50
NAINI TAL	Satarganj	,, ,,	3·50
PILIBHIT	Pilibhit-Kachahri	,, ,,	3·42
SHAHJAHANPUR	Jalalabad	,, ,,	3·37
NAINITAL	Kilpuri	,, ,,	3·34
MURADABAD	Muradabad	,, ,,	3·33
SHAHJAHANPUR	Tilhar	,, ,,	3·30
MURADABAD	Amroha	,, ,,	3·23
PILIBHIT	Pilibhit City	,, ,,	3·20
MUZAFFARNAGAR	Khandhla	,, ,,	3·10
BAREILLY	Faridpur	15th ,,	4·11
	Karor	,, ,,	3·76
SHAHJAHANPUR	Tilbar	,, ,,	3·25

The rainfall of the month was normal over the hills and was in slight to large excess elsewhere. The excess was greatest in the west division and particularly in the Jhansi, Aligarh, Bulandshahr and Meerut districts of that division. The following gives comparative data of the different districts of the west division :—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
N.-W. P., WEST.	Jhansi	8·54	5·31	+3·23	+ 61
	Agra	5·63	4·76	+0·87	+ 18
	Muttra	6·17	4·18	+1·99	+ 47
	Aligarh	13·38	4·58	+8·80	+192
	Bulandshahr	14·05	5·03	+9·02	+179
	Meerut	14·31	4·58	+9·73	+212

The following gives comparative data of the rainfall of the month for the eight divisions of the North-Western Provinces:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, Sept. 1900.	Average normal, Sept.	Variation of actual from normal, Sept. 1900.	Percentage variation from normal.	Average actual, Sept. 1900.	Average normal, Sept.
	Inches.	Inches.	Inches.			
North-Western Provinces, East.	9·41	6·89	+2·52	+ 37	12·3	8·1
South Oudh . .	9·42	6·52	+2·90	+ 44	11·8	7·4
North „ . .	9·93	7·22	+2·71	+ 38	10·2	7.2
North-Western Provinces, Central.	7·54	5·50	+2·04	+ 37	12·3	6·5
North-Western Provinces, West.	10·35	4·62	+5·73	+124	10·4	4·8
North-Western Provinces, East Submontane.	12·67	7·91	+4·76	+ 60	8·8	7·9
North-Western Provinces, West Submontane.	10·98	7·29	+3·69	+ 51	11·1	6·3
North-Western Provinces Hills.	9·04	8·00	+1·04	+ 13	12·1	9·4

The rainfall of the Punjab was generally similar to that in the North-Western Provinces. Thus showery weather prevailed from the 1st to the 5th; the 7th to the 9th; the 13th to the 16th; the 21st to the 23rd and the 24th to the 27th. The rainfall was very much heavier and more prolonged than usual, and during the second and third falls in the south, central and submontane divisions and in the last fall in the west division the rainfall was very heavy for the time of year. On the 13th and 14th in the Gurgaon, Rohtak and Delhi districts the following amounts exceeding 5″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Rohtak . . .	Jhajjar . . .	13th September	6·95
Gurgaon . . .	Nuh . . .	„ „ .	5·45
Do. . . .	Gurgaon . . .	14th „ .	7·00
Delhi . . .	Mahrauli . . .	„ „ .	7·00
Gurgaon . . .	Farukhnagar . .	„ „ .	6·50
Delhi . . .	Delhi . . .	„ „ .	6·10
Rohtak . . .	Sampla . . .	„ „ .	6·00
Delhi . . .	Ballabgarh . .	„ „ .	5·68
Gurgaon . . .	Sohna . . .	„ „ .	5·30
Do. . . .	Punahana .	„ „ .	5·04

In the central and submontane divisions the rainfall was heavy between the 20th and the 23rd when the following amounts exceeding 4″ in 24 hours were registered:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Delhi . . .	Delhi . . .	20th September	4·07
Gurgaon . . .	Sohna . . .	„ „ .	4·00
Gurdaspur . .	Tibri . . .	21st „ .	4·50
Do. . . .	Madhopur. . .	„ „ .	4·20
Lahore . . .	Meeanmeer . .	„ „ .	4·00
Rohtak . . .	Sampla . . .	„ „ .	4·00
Amritsar . . .	Tarn Taran . .	22nd „ .	7·64
Do. . . .	Buchar . . .	„ „ .	5·73
Ludhiana . . .	Jagraon . . .	„ „ .	5·54
Lahore . . .	Van	„ „ .	4·60
Ludhiana . . .	Ludhiana . . .	„ „ .	4·43
Jullundur . .	Nakodar . . .	„ „ .	4·12
Nabha State . .	Dadahur . . .	23rd „ .	7·01
Patiala State . .	Raniki . . .	„ „ .	6·50
Ludhiana . . .	Jagraon . . .	„ „ .	5·02

The last fall of the month was mainly received in the Shahpur, Jhang, Dera Ismail Khan and Dera Ghazi Khan districts where the following heavy falls of rain were received:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Shahpur . . .	Miani. . . .	23rd September	3·18
Jhang . . .	Lyallpur . . .	24th „ .	1·60
Dera Ghazi Khan	D. G. Khan . .	„ „ .	1·50
	Sanghar . . .	„ „ .	1·38
Jhang . . .	Lyallpur . . .	25th „ .	2·20
	Jhang . . .	„ „ .	1·38
Shahpur . .	Naushahra . .	26th „ .	2·27
	Nurpur . . .	„ „ .	1·17
Jhang . . .	Chiniot . . .	27th „ .	1·54
	Lyallpur . . .	„ „ .	1·30

The following gives comparative data for each of the districts of the Punjab :—

District.	Rainfall.			
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Hissar	8·02	2·22	+ 5·80	+261
Ferozepore	8·95	2·58	+ 6·37	+247
Montgomery	2·23	1·12	+ 1·11	+ 99
Gurgaon	13·81	4·38	+ 9·43	+215
Rohtak	13·12	3·36	+ 9·76	+290
Delhi	15·48	5·21	+10·27	+197
Karnal	9·76	4·06	+ 5·70	+140
Lahore	6·32	2·43	+ 3·89	+160
Umballa	8·28	5·60	+ 2·68	+ 48
Ludhiana	10·07	5·41	+ 4·66	+ 86
Jullundur	9·21	3·85	+ 5·36	+139
Hoshiarpur	12·63	4·25	+ 8·38	+197
Gurdaspur	8·95	4·43	+ 4·52	+102
Amritsar	9·21	2·56	+ 6·65	+260
Simla	4·70	5·82	— 1·12	— 19
Kangra	16·43	6·79	+ 9·64	+142
Gujranwala	5·70	2·13	+ 3·57	+168
Sialkot	8·17	2·64	+ 5·53	+209
Gujrat	8·74	2·66	+ 6·08	+229
Jhelum	6·10	2·08	+ 4·02	+193
Rawalpindi	8·33	3·20	+ 5·13	+160
Peshawar	5·66	1·15	+ 4·51	+392
Hazara	6·91	2·84	+ 4·07	+143
Kohat	3·86	1·49	+ 2·37	+159
Bannu	2·08	0·75	+ 1·33	+177
Shahpur	2·54	1·27	+ 1·27	+100
Jhang	2·37	0·77	+ 1·60	+208
Dera Ismail Khan	0·88	0·52	+ 0·36	+ 69
Dera Ghazi Khan	1·46	0·41	+ 1·05	+256
Muzaffargarh	0·62	0·54	+ 0·08	+ 15
Mooltan	0·42	0·70	— 0·28	— 40

The excess was almost everywhere large, but particularly so in the southern and south-eastern submontane and northern divisions. The following gives comparative data for the seven divisions of the province :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.	Average actual, September 1900.	Average normal, September.
	Inches.	Inches.	Inches.			
South-East Punjab	13·06	4·20	+8·86	+211	10·9	4·1
South Punjab	8·40	2·38	+6·02	+253	7·6	2·9
Central Punjab	6·35	2·33	+4·02	+173	6·6	2·5
Punjab Sub-montane.	9·76	3·89	+5·87	+151	9·3	3·7
Punjab Hills	11·74	6·40	+5·34	+ 83	12·1	7·4
North Punjab	5·63	1·94	+3·69	+190	6·1	2·7
West Punjab	1·73	0·84	+0·89	+106	2·7	1·2

A few showers fell over Baluchistan between the 1st and the 5th and at a few places later in the month. The total amount received averaged less than one quarter of an inch, but was more than the small normal amount. This is shown below :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from Normal.	Average actual, September 1900.	Average normal, September.
	Inch.	Inch.	Inch.			
Baluchistan Hills	0·24	0·15	+·009	+60	0·5	—

Kashmir received showers more or less throughout the month. The showers were fairly heavy at times, and exceeded 2″ 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.
Kashmir	Bhimber	1st September	2·65
	Meerpore	,, ,,	2·57
	Bhimber	2nd ,,	2·95
	Rampur Rajauri	,, ,,	2·68
	Pattan	,, ,,	2·23
	Akhnur	3rd ,,	3·51
	Kotli	,, ,,	2·20
	Meerpore	4th ,,	2·30

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kashmir	Kotli	6th Setember	3'54
	Jummoo	7th "	2'25
	Akhnur	" "	2'10
	Do.	8th "	4'10
	Sri Ranbir Singh Pora	9th "	2'43
	Akhnur	10th "	3'37
	Jummoo	" "	2'94
	Punch	" "	2'16
	Rampur Rajauri	11th "	2'91
	Sambha	" "	2'40
	Sri Ranbir Singh Pora	" "	2'10
	Meerpore	12th "	2'07
	Do.	18th "	3'02
	Nagam	" "	2'35
	Kathua	19th "	2'32

Apparently, the month's rainfall was nearly normal. Western Rajputana received showers between the 1st and the 6th and between the 11th and the 23rd. After the latter date the rainfall ceased. The rainfall was very heavy on the 12th and 13th, when the following large falls in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Jodhpur	Bilara	12th September	6'84
Bikaner	Desuri Bikaner	" "	3'94
Jodhpur	Nagaur	" "	2'30
	Jetaran	13th "	8'00
	Merta	" "	5'05
	Bilara	" "	4'34
	Jodhpur	" "	2'90

In Eastern Rajputana there was widespread and fairly constant rainfall for the first three weeks of the month, but the days of most general rain were the 1st to the 6th, the 13th to the 16th and the 19th to the 21st. During the first rainfall period a series of small storms were passing through the central parts of the country and affecting the weather over Eastern Rajputana, and the following falls of rain exceeding 3" in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kotah	Manoharthana	1st September	5'53
Bharatpur	Nagar	" "	5'00
Karauli	Mandrael	" "	4'45
	Utgir	" "	3'70
Bharatpur	Kumher	" "	3'50
	Bharatpur	" "	3'40
	Kaman	2nd "	5'46
Kotah	Khairabad	" "	5'08
Udaipur	Udaipur	" "	4'17
Dholpur	Dholpur	" "	3'16
Shahpura	Shahpura	5th "	5'02
Dholpur	Dholpur	" "	3'42

Between the 13th and 16th a local depression passed from the North-Western Provinces into Rajputana and occasioned very heavy rain over some districts. The following shows the heaviest falls exceeding 5":—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Alwar	Lachmangarh	13th September	8'37
	Rajgarh	" "	7'75
Bharatpur	Akhegarh	" "	7'50

The third rainfall period was connected with the large cyclonic storm of the month, but this storm never approached very near to Rajputana, so that the rain was less heavy than on the two preceding occasions. The following gives the falls exceeding 2" in 24 hours :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches
Jaipur	Bandikui	19th September	4'30
	Khetri	20th "	2'90
Bharatpur	Kaman	" "	2'21
Ajmer-Merwara	Harmara	21st "	2'30

After the 21st rain to a great extent ceased, and only light showers were experienced. The following gives a statement of the rainfall in the larger states :—

STATE.	RAINFALL.			
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Jodhpur	4·99	1·72	+3·27	+190
Jaipur	6·22	2·95	+3·27	+111
Alwar	9·57	5·00	+4·57	+91
Bharatpur	10·71	4·37	+6·34	+145
Dholpur	9·03	...	...	...
Karauli	7·70	4·99	+2·71	+54
Kotah	11·41	4·56	+6·85	+150
Ajmer Merwara	7·85	2·88	+4·97	+173
Udaipur	11·51	5·74	+5·77	+101

The rainfall of the month over Central India was generally similar to that over Rajputana, but the showers during the last ten days of the month were heavier in Central India than in Rajputana. The heaviest falls were recorded on the 1st, the 11th and the 18th, when the following amounts exceeding 2″ were recorded :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BHOPAL AGENCY	Biaora	1st September	8·33
Do.	Khilchipur	,, ,,	4·30
GWALIOR	Sitaman	,, ,,	3·20
REWAH	Sohagpur	,, ,,	2·69
GWALIOR	Gona	,, ,,	2·35
Do.	Jaora	,, ,,	2·26
Do.	Agar	,, ,,	2·15
Do.	Sitaman	11th ,,	6·30
Do.	Jaora	,, ,,	6·08
BHOPAL AGENCY	Narsinghgarh	,, ,,	3·75
Do.	Kurwai	,, ,,	3·30
GWALIOR	Sailana	,, ,,	3·10
BUNDELKHAND	Kadaura	,, ,,	3·05
Do.	Charkhari	,, ,,	3·00
REWAH	Bardi	,, ,,	2·50
Do.	Sutna	,, ,,	2·05
BHOPAL AGENCY	Biaora	,, ,,	2·03
GWALIOR	Sitaman	18th ,,	2·20
BHOPAL AGENCY	Kurwai	,, ,,	2·04

The following gives comparative data for the larger states :—

STATE.	RAINFALL.			
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Indore	8·49	7·63	+0·86	+11
Rutlam	7·32	7·95	−0·63	− 8
Bhopal Agency	12·92	8·87	+4·05	+46
Gwalior	7·68	6·15	+1·53	+25
Rewah	12·27	7·24	+5·03	+69
Bundelkhand	8·90	6·55	+2·35	+36

The rainfall over the whole of this area was exceptionally heavy and in marked contrast to the rainfall of September 1899. In Western Rajputana the fall was three times the usual amount. This is shown below :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, September. 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.	Average actual, September 1900.	Average normal, September.
	Inches.	Inches.	Inches.			
West Rajputana	4·76	1·53	+3·23	+211	5·2	...

There were four periods of general rainfall in the Central Provinces. The first lasted from the 1st to the 5th, when small storms were passing north-westward through the central parts of the country, the second occurred on the 10th and 11th, the third extended from the 16th to the 20th, when the principal storm of the month lay over the eastern districts of the Central Provinces, and the last occurred between the 23rd and 28th, when the same storm was passing through the provinces. During the first period the rainfall was not very heavy.

but exceeded 3″ on the following dates at the following places :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SAMBALPUR	Bargarh	1st September	4·48
Do.	Sambalpur	,, ,,	3·86
Do.	Sarangarh State	2nd ,,	3·35
CHANDA	Armori	,, ,,	3·14
WARDHA	Hinganhat	4th ,,	7·15
HOSHANGABAD	Harda	,, ,,	5·06
NAGPUR	Umrer	,, ,,	3·88
CHANDA	Chimar	,, ,,	3·78
NIMAR	Harsud	5th ,,	5·39
Do.	Khandwa	,, ,,	4·87

During the second rainfall period the fall was by no means general, but several local heavy falls were recorded. The following gives data in illustration :—

DISTRICT.	STATION.	Date.	Rainfal during 24 hours preceding 8 A.M. of date.
			Inches.
RAIPUR	Raipur	10th September	4·23
SAMBALPUR	Sambalpur	,, ,,	4·00
HOSHANGABAD	Pachmarhi	,, ,,	3·79
BILASPUR	Janjgir	,, ,,	3·65
MANDLA	Dindori	11th ,,	3·25

In the third and fourth periods the rainfall, as might have been expected from the conditions under which it fell, was both general and heavy, and exceeded 3″ in 24 hours at the following large number of stations :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CHANDA	Armori	17th September	6·25
RAIPUR	Raipur	,, ,,	5·41
Do.	Dhamtari	,, ,,	4·72
BETUL	Shahpur	18th ,,	6·50
CHANDA	Brahmapuri	,, ,,	5·02
Do.	Mul	,, ,,	4·73
SAMBALPUR	Bargarh	,, ,,	4·30
CHANDA	Chanda	,, ,,	4·06
CHANDA	Armori	18th September	3·36
Do.	Chironcha	19th ,,	6·95
BETUL	Betul	,, ,,	5·15
HOSHANGABAD	Harda	,, ,,	4·65
CHANDA	Chanda	,, ,,	4·61
Do.	Brahmapuri	,, ,,	4·61
Do.	Mul	,, ,,	3·76
NIMAR	Harsud	,, ,,	3·08
BETUL	Chicholi	,, ,,	3·05
CHANDA	Warora	,, ,,	3·04
Do.	Chironcha	20th ,,	3·45

The total rainfall of the month was in excess of the normal in all parts of the Central Provinces, but especially in the east, that part of the area having been under the influence of the large storm from the Bay for several days in succession. The following gives comparative data for the different districts of the east division :—

DIVISION.	District.	RAINFALL.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
CENTRAL PROVINCES, EAST.	Sambalpur	19·85	8·07	+11·78	+146
	Bilaspur	15·56	7·95	+7·61	+96
	Raipur	20·75	6·58	+14·17	+215

The following gives comparative data for the three divisions of the Central Provinces and for Berar for the month :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.	Average actual, September 1900.	Average normal, September.
	Inches.	Inches.	Inches.			
Central Provinces, East	18·27	7·57	+10·70	+141	18·1	9·5
Do. Central	14·42	7·95	+6·47	+81	16·3	9·7
Do. West	14·13	8·80	+5·33	+61	14·2	9·5
Berar	8·11	7·12	+0·99	+14	...	...

The rains held steadily in the Bombay Coast districts from the 1st to the 27th of the month, after which date they practically ceased. There were three periods during the month, when the Bombay monsoon current, under the influence of the storms which advanced westward across the head of the Peninsula, was intensified and gave heavy rain in the coast districts and the Western Ghâts. These periods were the 1st to the 5th, the 10th to the 13th and the 18th to the 26th. The following gives the most noteworthy falls during these periods:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A. M. of date.
			Inches.
North Kanara	Honavar	4th September	6·68
Kolaba	Matheran	" "	4·60
North Kanara	Bhatkal	" "	3·90
Do.	Kumta	" "	3·78
Ratnagiri	Mandangad	" "	3·33
Do.	Do.	5th "	3·11
Thana	Murbad	" "	3·07
Kolaba	Khalapur	" "	3·06
North Kanara	Bhatkal	10th "	1·83
Ratnagiri	Devgad	" "	1·41
Kolaba	Karjat	" "	1·30
Do.	Khalapur	" "	1·12
Savantvadi	Banda	11th "	1·35
Ratnagiri	Dapoli	" "	1·14
North Kanara	Siddapur	" "	1·12
Kolaba	Mahad	" "	1·02
Savantvadi	Banda	12th "	1·60
North Kanara	Sirsi	" "	1·14
Kolaba	Matheran	24th "	6·17
Ratnagiri	Khed	" "	4·60
Do.	Mandangad	" "	4·28
Kolaba	Khalapur	25th "	11·29
Do.	Karjat	" "	7·52
Do.	Panvel	" "	7·02
Do.	Matheran	" "	4·50
Ratnagiri	Mandangad	" "	4·13
Thana	Shahapur	26th "	6·58
Kolaba	Khalapur	" "	5·73
Do.	Karjat	" "	5·64
Thana	Murbad	" "	4·70

The rainfall was much heavier on the ghâts, relatively to the normal, than at the coast stations, and the following gives comparative data for Matheran and Khalapur:—

District.	Rainfall.			
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Matheran	40·01	28·75	+11·26	+39
Khalapur	40·98	20·43	+20·55	+101

The following gives comparative data for the different districts of the Konkan division:—

Division.	District.	Rainfall.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Konkan	North Kanara	7·48	10·24	—2·76	—27
	Savantvadi	12·60	...	...	...
	Ratnagiri	15·12	16·82	—1·70	—10
	Kolaba	28·01	19·66	+8·35	+42
	Thana	16·20	14·65	+1·55	+11

In the Karnatak only scattered showers were received throughout the month and in most cases these showers were light. The most general showers were received on the 8th, 12th and 24th, when the following amounts exceeding 1 inch in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Dharwar	Ranibenur	8th September	2·49
	Ron	" "	1·25
	Gadag	12th "	2·23
Bijapur	Badami	" "	2·22
Dharwar	Kalghatghi	" "	1·08
Bijapur	Sindgi	24th "	2·51
	Indi	" "	1·15
Belgaum	Chandgad	" "	1·03

The following gives comparative data for the different districts of the Karnatak division :—

Division.	District.	Rainfall. Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Karnatak	Dharwar	2·41	3·88	−1·47	−38
	Bijapur	3·36	5·58	−2·22	−40
	Belgaum	1·34	4·52	−3·18	−70
	Kolhapur and other Southern Maratha country States.	1·44	3·37	−1·93	−57

In the South Deccan the weather was showery during three periods, *viz.*, the 1st to the 5th, the 10th to the 13th and the 24th to the 27th. The rainfall was generally heavier in this than in the Karnatak division and the following falls exceeding 3 inches in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Satara	Malcolmpeth	4th September	3·50
	Do.	24th "	8·12
	Panchgani	" "	4·32
Poona	Lanoli	" "	4·07
	Do.	25th "	9·19
Satara	Malcolmpeth	" "	4·10
Poona	Junnar	" "	3·76
	Lanoli	26th "	7·55
Satara	Malcolmpeth	" "	5·05
Poona	Mavel	" "	3·18
	Lanoli	27th "	4·68

It will, however, be observed that most of these falls and all the very heavy falls were recorded at the hill stations. The following gives comparative data for the different districts of the South Deccan division :—

District.	Rainfall. Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Satara	4·94	4·83	+0·11	+ 2
Sholapur	2·60	7·86	−5·26	−67
Poona	7·09	7·50	−0·41	− 5

General showers occurred in the North Deccan division between the 2nd and 8th and between the 23rd and the 28th, but at other times only scattered and generally light showers were experienced. During the first rainfall period the rainfall amounts were generally light or moderate, and the following were the only falls exceeding 2″ in 24 hours :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khandesh	Nandurbar	4th September	2·45
Nasik	Trimbak	5th "	2·02
	Igatpuri	6th "	2·10

But during the second period the falls were heavier as is shown below, though in this instance also the principal large falls were reported from the hill stations :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Khandesh	Erandol	23rd September	2·50
Nasik	Peint	" "	2·12
	Trimbak	24th "	2·25
	Peint	" "	2·12
Ahmednagar	Ahmednagar	" "	2·12
Nasik	Igatpuri	25th "	6·07
	Peint	" "	5·09
	Trimbak	" "	4·75
	Igatpuri	26th "	6·20
	Trimbak	" "	4·45
	Peint	" "	4·25
Khandesh	Nandurbar	" "	2·10
Nasik	Igatpuri	27th "	10·30
	Trimbak	" "	2·21
	Do.	28th "	4·45

In Gujarat there was a burst of rain between the 5th and the 10th, and only scattered showers at other times. The following shows the principal amounts, exceeding 3," in the period 5th to 10th :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
PANCH MAHALS . .	Godhra . . .	5th September	6·60
Do. . .	Kalol . . .	" " .	5·53
KAIRA . . .	Dakor . . .	" " .	3·85
Do. . . .	Anand . . .	" " .	3·04

At other times during the month the rainfall was scattered and irregular, but was occasionally heavy, as is shown below :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SURAT . . .	Valod . . .	21st September	2·10
SURAT AGENCY . .	Bansda . . .	25th " .	3·23
SURAT . . .	Valod . . .	26th " .	3·75
SURAT AGENCY . .	Bansda . . .	" " .	3·09
SURAT . . .	Bardoli . . .	" " .	2·07
BROACH . . .	Broach . . .	27th " .	3·60
Do. . . .	Amod . . .	" " .	3·43

The following gives comparative data for the different districts of Gujarat :—

DIVISION.	District.	RAINFALL.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
GUJARAT . .	Surat . . .	5·12	11·81	—6·69	—57
	Broach . . .	6·42	8·62	—2·20	—26
	Kaira . . .	4·38	6·45	—2·07	—32
	Panch Mahals .	6·55	8·55	—2·00	—23
	Ahmedabad . .	4·12	5·06	—0·94	—19

In Kathiawar and Cutch there was fairly general rain from the 1st to the 10th and a few showers during the remainder of the month. The rainfall was rather heavy in Baroda and Rewa and Mahi Kantha on the 5th. This is shown below :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BARODA . . .	Baroda . . .	5th September.	3·60
REWA KANTHA . .	Wadasinor . .	" " .	3·60
Do. . .	Lunavada . .	" " .	3·35
MAHI KANTHA . .	Sadna . . .	" " .	3·27

The following gives comparative data for the Kathiawar and Cutch states :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.	Average actual, September 1900.	Average normal, September.
	Inches.	Inches.	Inch.			
Gujarat, Kathiawar and Cutch States.	4·15	4·70	—0·55	—12	6·9	4·4

In Sind there was a little rain on the 5th, when the other parts of North Bombay received their heaviest rain, but practically none at other times in the month.

The preceding data show that the rainfall of the month was about normal in the coast districts, but was less than usual in the interior of the Presidency as well as all over North Bombay. The following gives comparative data of the different divisions :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.	Average actual, September 1900.	Average normal, September.
	Inches.	Inches.	Inches.			
Konkan . . .	16·19	14·96	+1·23	+ 8	21·0	16·8
Bombay Deccan .	3·63	5·53	—1·90	—34	5·6	8·4
Khandesh . .	5·94	6·97	—1·03	—15	9·4	9·2
Gujarat . .	5·53	8·03	—2·50	—31	8·6	8·3
Kathiawar and Cutch	4·15	4·70	—0·55	—12	6·9	4·4
Sind . . .	0·33	0·48	—0·15	—31	0·8	...

The rainfall in the Madras Presidency varied less from the normal than in any other province and the fall was generally normal or in slight excess.

The Malabar districts received daily rain from the 1st to the 26th, when the fall ceased rather abruptly. The heaviest and most general rain was between the 9th and the 13th when the following amounts exceeding 2″ were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
South Canara	Mulki	9th Sept.	9·37
	Mangalore	"	7·27
Travancore State	Peermade	"	3·35
	Pattanapuram	"	2·68
South Canara	Kasaragod	"	2·60
	Mulki	10th	2·62
	Beltangadi	11th	3·04
Travancore State	Peermade	"	2·40
	Do.	12th	5·60
	Alleppey	"	2·22
	Peermade	13th	4·32

The rainfall of the month was nearly normal in this area. The following gives data for the different districts of this division :—

Division.	District.	Rainfall.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Malabar	Malabar	6·36	7·66	−1·30	−17
Do.	South Canara	16·87	12·23	+4·64	+38

In South Madras there were showers from the 1st to the 14th, and again from the 28th to the 30th. The total rainfall was somewhat heavier than usual and the following falls exceeding 2″ in 24 hours were registered :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tinnevelly	Vilattikulam	6th Sept	2·19
Madura	Tiruvadanai	9th "	2·70
	Tiruppattur	" "	2·70
	Tiruchuli	10th "	2·25

The following gives comparative data for the two districts in this division :—

Division.	District.	Rainfall.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inch.	
Madras, South	Madura	3·82	2·97	+0·85	+29
	Tinnevelly	1·22	1·19	+0·03	+ 3

In South Central Madras similar conditions prevailed. General rain was reported up to the 16th or 17th, when the fall more or less ceased, though further showers were received on the 29th and 30th. The following falls exceeding 2″ in 24 hours were recorded in this division :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Salem	Pennagaram	1st September.	2·50
	Sendamangalam	" "	2·32
Coimbatore	Gopichettipalayam	4th "	2·10
Salem	Attur	6th "	3·23
	Thammampatti	" "	2·96
	Rasipuram	" "	2·76
Coimbatore	Avanashi	" "	2·76
Salem	Namakal	" "	2·75
	Harur	7th "	4·36
Coimbatore	Perundurae	" "	2·74
Salem	Dharmapuri	" "	2·57
	Paramathi	" "	2·55
	Namakal	" "	2·32
Coimbatore	Karur	" "	2·07
Salem	Salem	13th "	2·49
	Sendamangalam	15th "	2·84
	Rasipuram	" "	2·11
	Vamyambadi	27th "	2·58
	Tirupattur	" "	2·25
	Do.	28th "	2·34
	Hosur	29th "	3·18
	Thalli	" "	2·25
	Krishnagiri	30th "	3·62

And the general rainfall was considerably heavier than usual. The following gives comparative data for the two districts of the South Central division:—

Division.	District.	Rainfall. Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Madras, South Central.	Salem	8·08	5·86	+2·22	+38
	Coimbatore	4·78	3·18	+1·60	+50

In Central Madras general rain fell from the 6th to the 16th, and showers on the 23rd and the 29th and 30th. Amounts exceeding 3″ in 24 hours were recorded on the following occasions:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bellary	Hospet	9th September	3·68
Cuddapah	Cuddapah	11th "	3·25
Anantapur	Uravakonda	12th "	9·30
Kurnool	Nandyal	" "	5·33
Bellary	Adoni	" "	3·11
Anantapur	Bukkapatnam	14th "	3·79
	Gooty	29th "	3·80

And the general rainfall was in slight excess of the normal. The following gives comparative data for the districts in this division:—

Division.	District.	Rainfall. Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Madras, Central.	Cuddapah	5·93	5·20	+0·73	+14
	Anantapur	7·67	5·01	+2·66	+53
	Bellary	5·56	5·20	+0·36	+ 7
	Kurnool	15·27	5·79	−0·52	− 9

In the north of the east coast there were three periods of rainfall, *viz.*, from the 1st to the 6th, the 16th to the 19th and the 23rd to the 28th. Heavy local falls of rain were also received on the 10th and 11th. The following gives information as to the falls which exceeded 4″ in the 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Godavari	Kovvur	10th September	4·25
Vizagapatam	Nowrangapura	" "	4·10
Kistna	Tenali	11th "	4·32
Vizagapatam	Vizianagram	24th "	5·70
	Narasapatnam	" "	5·56
	Chpurupalle	" "	4·50
Godavari	Addatigala	" "	4·50
Ganjam	Chatrapur	25th "	5·91

The general rainfall of the month was approximately normal, as is shown by the following table, which gives comparative data for the different districts of the east coast, north:—

Division.	District.	Rainfall. Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
East Coast, North.	Ganjam	9·23	7·88	+1·35	+17
"	Vizagapatam	7·64	7·63	+0·01	0
"	Godavari	8·47	7·29	+1·18	+16
"	Kistna	7·35	6·04	+1·31	+22

In the central division there were moderate bursts of rain on the 5th, between the 9th and the 13th, and again on the 30th. The largest amounts were recorded on the 8th, 9th and 30th, as is shown below:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Nellore	Kistnapatam	8th September	3·07
	Kandukur	9th "	3·41
	Gudur	30th "	3·04
	Venkatágiri	" "	2·85

The general rainfall of the month was heavier than usual. The following gives comparative data for the Nellore district :—

Division.	District.	Rainfall.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
East Coast Central.	Nellore . .	6·02	4·43	+1·59	+36

In the south division of the east coast there were fairly general daily showers during the first three weeks of the month, after which there was fine weather, except for showers between the 27th and 30th. The following gives information as to the falls exceeding 4″ in 24 hours :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
North Arcot . .	Venkatagirikota .	1st September	4·56
Do. . .	Kangundi. . .	,, ,, .	4·42
Trichinopoly . .	Lalgudi . . .	7th ,, .	4·15
Tanjore . . .	Tiruvadi . .	12th ,, .	5·06

The rainfall of the whole month for the whole division was about 30 per cent. heavier than usual, as is shown by the following table, which gives comparative data for the different districts of the division :—

Division.	District.	Rainfall.			
		Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
East Coast, South.	Madras . .	6·03	4·79	+1·24	+26
	Chingleput .	4·83	5·54	−0·71	−13
	North Arcot .	6·93	5·94	+0·99	+17
	South Arcot .	8·74	5·92	+2·82	+48
	Tanjore . .	6·75	4·48	+2·27	+51
	Trichinopoly .	7·03	4·89	+2·14	+44

The following gives comparative data for the different divisions of the Madras Presidency :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, September 1900.	Average normal, September.	Variation of actual from normal, September 1900.	Percentage variation from normal.	Average actual, September 1900.	Average normal, September.
	Inches.	Inches.	Inches.			
Malabar . . .	10·09	9·30	+0·79	+ 8	17·1	14·0
Madras, South Central.	6·68	4·63	+2·05	+44	9·8	6·7
East Coast, North .	8·63	7·59	+1·04	+14	11·9	10·0
Madras, Central . .	6·06	5·30	+0·76	+14	8·9	7·5
East Coast, Central .	6·02	4·43	+1·59	+36	9·7	6·8
East Coast, South .	6·90	5·34	+1·56	+29	9·2	6·8
Madras, South . .	2·64	2·15	+0·49	+23	4·9	3·5

Appendix.

Extracts from the "Englishman" of Saturday, the 22nd September 1900.

Deluge in Calcutta.

THE CITY FLOODED.

FIFTEEN INCHES IN 24 HOURS.

Upwards of fourteen and a half inches of rain fell in Calcutta between Tuesday night (18th) and Thursday morning (20th), and as we go to press the rain is still falling. The rainfall by this time must be considerably over 20 inches. Such a downpour has not been known for 30 years, and the Meteorological Department speaks of it as "phenomenal." The native town on Thursday presented an extraordinary spectacle. Taking Chitpur Road and Bentinck Street as the west boundary, Dhurrumtollah as the southern one, the canal as the eastern one, and the end of the town to the north, the area thus enclosed was practically covered with water up to 3 feet 6 inches or four feet in depth. In Sukea's Street people were walking about up to their arm-pits, while Cornwallis Square with its large tank was one sheet of water, there being no trace of the banks of the tank. The Northern Gowkhana yesterday morning had upwards of two feet of water in it, and the municipal authorities were not able to get their carts out. The authorities have, we believe, done everything possible to rid the town of the enormous body of water which has so suddenly descended upon it, but such a downpour is almost unprecedented. The municipal incinerator has been flooded out. One of the most remarkable features of the present floods is the state of Chowringhi and Circular Road. On Thursday morning the latter was a sheet of water which invaded all the compounds along it. Chowringhi was submerged from gutter to gutter on Wednesday night. It is feared that, in addition to the loss of life which may be occasioned by damage to houses, etc., a great deal of sickness and mortality will follow upon the excessive dampness. At the same time the drains and sewers must have been well flushed, which is an undoubted advantage.

The present state of affairs in Calcutta is undoubtedly a very serious one. In the northern part of the town yesterday morning the floods had begun to subside, the rains having stopped for an hour or two. The effect of this was seen in the most deeply flooded portions of the city, when about midday the mean depth of the water had gone down by about a foot. The Municipal executive have done their best in the face of this unprecedented crisis. They have opened five penstocks into the canal and four into the Hughli, and these outlets have undoubtedly done a prodigious amount of good. But the most serious feature of the situation is the height of the water in the canal and river. This fact coupled with the tremendous rainfall of the last three days—14½ inches on Wednesday, 11 inches on Thursday, probably not far from ten yesterday—threatens to tie the hands of the authorities, and, putting aside the consequent danger of floods which will carry a large part of the city bodily away it is now impossible to say how long it will take to run off the water. In another column one correspondent draws attention to the problem of dealing with the sickness and suffering which must be faced as soon as the flood subsides in earnest—a problem which must become more acute and difficult with every hour that the rain continues. It is pleasing to notice the many instances of public spirit and philanthropy which the catastrophe has called forth. But for these it is appalling to contemplate what would have appeared to the dwellers in the submerged huts in the Machooa Bazar neighbourhood. Our information points to whole villages being deserted. Where the inhabitants would have fled to but for the prompt and kindly assistance held out to them close at hand it is difficult to see. While the floods are at their worst in and immediately around Calcutta they also extend for a long distance up the Eastern Bengal Railway line. Fortunately no breaches of the line have yet occurred. It is no exaggeration to say that the conditions in Calcutta during the greater part of this week have partially paralyzed business of every kind. Apart from the difficulty experienced by principals in getting about the city, a large number of native employés have been completely flooded out, and their places have been vacant for days. The Aryan brother is never so highly appreciated as at times like these—if that is any consolation to him.

At about 10 o'clock on Friday (21st) morning there were indications of the severe weather we have been experiencing coming to an end. The rain had ceased, but the sky was still overcast with clouds broken here and there. Although the sun was not visible, there was a cheery brightness about the light that filled one with a ray of hope, and the thought naturally came to mind that the prediction of a local prophet would come to pass, that the rain would cease on Friday, but that the clouds would not disappear for some days. Scarcely a couple of hours elapsed when down came the rain again with a steady pertinacity which kept up throughout the day. The water about the streets which was rapidly subsiding on the cessation of the rain again rose and was for a time even worse than it was on the day previous. In Ezra Street a number of empty barrels were running a race down the street. In Chitpur Road nuts, raisins and some fruit were to be observed floating on the water. In Coolotollah Street six bullocks were drowned and in other streets empty boxes and rubbish were being carried away by the stream. At Maniktollah a man was plying a boat to Kankargachi and had established a boat service between these two places for one pice a trip. Pedestrians gladly took passages. In the Balliaghatta Section of the town Superintendent Davis of the Calcutta Police is having a very trying time. For miles around the country is inundated to a very serious extent, while villages are being submerged and many houses are tumbling down. Superintendent Davis is indefatigable in his efforts to meet the wants of the homeless and foodless as much as lies within his power. At present he has been able to do this for 2,000.

DESTRUCTION OF HOUSE PROPERTY.

At 9 o'clock at night the kitchen of a house in Beebee Bossen's Lane fell down and injured a cook in the employ of one Mr. Murray so seriously that his condition is precarious. The following houses and huts have collapsed :—One hut in Bow Bazar, one kutcha house in Doctor's Lane, three in Abdul Latiff Street, one pucca house in Taltollah Bazar (No. 4½), and nine huts containing thirteen families, two kutcha houses in Moulvie Dedar Bux's Lane, one hut in Theatre Road, one hut in Fenwick Bazar, one hut in Short Street one in Nazatalao, one pucca godown in Park Lane, one pucca house in Ripon Street (No. 23) three pucca houses in Colootollah, a house in Grant's Street (No. 3,) and the front portion of No. 6 Meredith's Lane. One pucca cookhouse and seven huts in Colinga containing sixteen families, one hut in Park Street containing two families, the third flat of a house in Durga Charan's Lane, one pucca house and four tiled huts in Kumartoli and a two storeyed house in Burtollah. In addition numerous huts and houses have been partly damaged.

Notwithstanding that the rain slackened on Friday afternoon and a warm breeze from the northward did its best to dry up the streets the vicinity of Ballyganj, Balliaghatta and the roads and railway

lines towards Barrackpur remain inundated. The compound of the Park Street police station and also the compounds of several houses in the neighbourhood of Middleton Row remain flooded, in some cases to a depth of two feet or more. The same state of affairs exists to a greater or less extent in Theatre Road, Camac Street and Lower Circular Road. As far as flooding goes, however, Ballyganj has more than its share; Entally is also badly off in this respect, and some days of dry sunny weather must elapse before the surface water entirely disappears. Yesterday evening again garris were at a premium in the European quarter of the town, and last night it was difficult to secure a conveyance at any price.

The Railway quarters at Sealdah are in a sorry plight. The residents on the ground floors are filled with anxiety for the future. The water is gradually but steadily insinuating itself into the verandahs, and in some houses the water has surmounted the threshold of the doors. The suburbs, the other side of Sealdah are a gigantic swamp.

A house collapsed in Emambari Lane, killing a native woman. A far worse catastrophe is reported at Balliaghatta where, without warning, a house collapsed, burying eleven natives. Three of these were killed outright. The others were removed to hospital in a more or less critical condition. Another house collapsed fn Gurpara Road killing a woman and two children. Another native woman was killed by the fall of a house in Khyroo Khansamah's Lane.

On Friday morning house No. 28, Ripon Street, fell in without warning. The entire family was inside at the time but miraculously escaped injury. In Pathooryia Lane the inmates of a house noticed the plaster cracking and falling and luckily rushed outside. Immediately afterwards the house tumbled down.

"At about five o'clock this Saturday morning a house collapsed in Sumbu Babu's Lane, off South Road, Entally, burying four people who were asleep at the time. Information was sent to us and we hurried to the spot and commenced relief operations. One of the walls was in a tottering condition and threatened to fall at any moment but Inspector Peterson at great personal risk, rushed under the wall and rescued one of the inmates, who, severely injured, was sent off to hospital. The other three men were dead when we found them.

The country round about here is in a frightful state. Deep water everywhere, due principally to the overflowing of the eastern canal. This morning I saw six cows, and any number of goats and other domestic animals, floating about dead. That will give you some idea of the state of the flooding about here. I never thought that such a flood was possible. Matters are a bit better to-day, as Mr. Cooper and some of the municipal officials paid us a visit and opened all the man-holes in the vicinity, but there is so much water about that several days of fine weather must elapse before we get rid of it.

Owing to the failure of the gas supply Baniapukur was in darkness last night. The Gas Company's premises are greatly flooded, there being fully four feet of water in the retort house, and this prevents the generation of gas. The gas works at Howrah, a branch of the Calcutta Company, have had to stop working altogether, and an attempt is being made to run a main from Calcutta over the Howrah bridge in order to supply Howrah with gas.

At eight o'clock on Saturday morning a portion of Gasputti bazar, Grant Street, collapsed burying six natives, two of whom were killed on the spot and four were removed to hospital, more or less severely injured. On the news being received, the Commissioner and Deputy Commissioner of Police visited the spot and superintended the rescue work. A portion of house No. 25, Free School Street, has also collapsed and the inhabitants, Europeans, have been warned to quit.

On the Dum-Dum section of the Bengal Central Railway things are looking ominous indeed. The whole line from Dum-Dum Cantonment right up to Habra, with the exception of a few short lengths, are more or less under water, including the Jumoona and Ichamutty bridges. The District Traffic Superintendent declares that if the rain continues a few hours more with the same steadiness as it has shown the last three or four days, Dum-Dum Station will be submerged and also the Cantonment. The Station Master has been wired to remove all the station furniture and have them placed in wagons, also to provide for accommodation in wagons for the Railway Staff. There is some anxiety felt over the Jhikergachá Bridge, and the Engineering Department have deputed watchmen to report if it shows signs of giving way. Between Dum-Dum Cantonment and Habra all the culverts are in a dangerous condition. The sidings at Dum-Dum Junction have slipped and there is a fear that the main line there will come to grief. The surrounding country is entirely inundated. Villages are covered with water, and many have been demolished through the rain. Several people are reported to have been drowned while trying to get through the water to a place of safety. Thousands are homeless and suffering and begging for food. Traffic is at a standstill but it is hoped that trains will be able to run *viâ* Ranaghat.

From Howrah traffic is completely suspended, but from the junction station, two miles up the line (Kadumtolla) the trains are running regularly as far as Chanditolla on the Sheakhalla line. On the line between Chanditolla and Sheakhalla (ten miles) it was impossible to continue the service owing to the line being submerged and partially breached in six places due to the bursting of a neighbouring canal (*khal*). The line is flooded a length of over 1,000ft. near Moshat, but Mr. Martin considered that the damage done would not be of a serious character, and in three or four days, if the flood begins to subside, traffic will be resumed as usual. The Howrah-Amta Railway has so far suffered little from the floods—several stations are under water, but with the exception of the branch line from Burgatchia to Jaggatbullubpur all sections of the line are in working order from Kudumtolla Junction. It was feared, however, that if the flood continued the traffic would be interrupted.

Up to the present there has been no serious damage on the Eastern Bengal State Railway. The authorities of this railway express themselves as being singularly fortunate in having nothing soul-stirring to relate. Of course, there was reason to fear something happening to the permanent way, but every precautionary measure is being taken by the Engineering Department throughout the whole extent of the railway. Between Sealdah and Canal Junction single line working is in force, as the embankment on one side of the rails is giving cause of some anxiety. The line in some parts has sunk. At Baruck the southern end of the station platforn has sunk. At Jadabpur, some four or five miles away, three lines with the sleepers were carried away. Trains are proceeding on caution messages over many sections, all of which are arriving at their destination late. The Lieutenant-Governor's special, which was timed to arrive at Sealdah station at 10-50, did not arrive till noon.

SUBSIDENCE OF THE FLOODS.

To the relief of all Calcutta the rain slackened off on Friday, and by Saturday morning most of the flooded portions of the town were drained off. There was comparatively little rain on Saturday, and by Sunday morning the whilom Venetian aspect of Calcutta had given place to something like the normal state of things. A tremendously heavy plump came down at church time on Sunday evening, but the rain did not last long. As will be seen from the reports gleaned from many sources, the death roll has already assumed no inconsiderable proportions, and it is to be feared that many more fatalities will yet have to be put down as caused, directly or indirectly by the cyclone, while the loss of property cannot fail to be such as to cripple the resources of many of the poorer class of natives.

Tab

Abstract of Observations taken at 8 A.M. at 219 Stati

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	A
	I.—Burma Coast and Bay Islands.				+·026								86·1	+0·9	75·9	+0·3	81·0	+0·6	10·2					1
1	Tenasserim and Bay Islands.	Car Nicobar	25	29·810		29·762	29·892	20th	29·701	1st	·191	79·3	86·2		76·7		81·5		9·5	90·4	29th	74·4	12th	1
		Port Blair	61	29·851	+·034	29·843	29·921	20th	29·721	9th	·200	79·9	85·2		77·3*		81·2*		7·9	89·6	25th	75·3	29th	1
		Mergui	96	29·817	+·013	29·845	29·905	20th	29·690	9th	·215	78·5	84·9	+0·8	74·4	+2·9	79·7	+1·9	10·5	90·1	7th	72·4	22nd	1
		Tavoy	26	29·878	?	29·835	29·964	20th	29·757	9th	·207	77·8	84·9	+1·3	74·6	+1·0	79·8	+1·2	10·3	90·2	7th	71·0	22nd	1
		Moulmein	94	29·802	+·020	29·833	29·901	21st	29·636	12th	·265	78·7	85·8	+1·3	75·0	+0·9	80·4	+1·1	10·8	92·5	9th	71·3	20th	2
2	Lower Burma	Rangoon	41	29·839	+·019	29·817	29·950	20th	29·689	12th	·261	79·3	86·5	+1·0	76·3	+0·4	81·4	+0·7	10·2	91·6	9th	72·9	18th & 23rd.	1
		Bassein	27	29·851	+·028	29·813	29·963	20th	29·686	12th	·277	79·2	86·4	+1·1	77·1	+1·6	81·8	+1·4	9·3	91·7	10th	74·1	20th	1
		Diamond Island	41	29·840	+·032	29·816	29·942	24th	29·701	12th	·241	81·0	85·0	+0·2	78·5	+3·2?	81·8	+1·7?	6·5	88·6	9th & 10th.	75·2	2nd	1
5	Arakan	Akyab	20	29·831	+·033	29·794	29·936	25th	29·689	12th	·247	80·3	86·7	+0·1	74·8	−3·2	80·8	−1·6	11·9	92·9	12th	70·5	20th	2
3	Central Burma	Toungoo	183	29·690	+·031	29·816	29·805	20th	29·520	12th	·285	79·8	89·1	+0·5	74·0	−1·4	81·6	−0·5	15·1	95·6	9th	69·6	22nd	2
	II.—Burma Inland				+·057								89·9	−0·9	75·0	−0·6	82·5	−0·7	15·0					27
3	Central Burma	Thayetmyo	130	29·734	+·043	29·806	29·858	20th	29·570	12th	·288	80·3	89·9	+0·2	75·3	−0·4	82·6	−0·1	14·6	95·9	29th	70·9	23rd	2
4	Upper Burma	Minbu	165	29·712	+·061	29·821	29·858	20th	29·558	12th	·300	79·1	89·7	−1·5	76·1	−0·4	82·9	−1·0	13·6	97·6	11th	71·6	19th	2
		Yamethin	657	29·214	+·049	29·824	29·353	20th	29·072	12th	·281	79·1	91·3	−0·7	74·4	−0·3	82·9	−0·5	16·9	100·0	11th	70·7	20th & 24th.	2
		Mandalay	250	29·636	+·069	29·836	29·777	20th	29·504	12th	·273	81·4	91·1	−1·7	76·5	−0·2	83·8	−1·0	14·6	97·0	12th	70·6	20th	2
		Kindat	377	29·510	+·044	29·845	29·645	20th	29·395	12th	·250	77·4	87·7	−1·1	74·3	−0·9	81·0	−1·0	13·4	93·8	12th	67·8	19th	2
		Bhamo	381	29·501	+·076	29·840	29·613	20th	29·377	14th	·236	77·9	89·9	−0·3	73·2	−1·1	81·6	−0·7	16·7	96·5	15th	67·1	22nd & 24th.	2
4(a)	Burma Hill Stations.	Maymyo										70·9	75·6		59·2		67·4		16·4	84·0	13th	51·0	25th	3
		Taunggyi										67·3	70·9	−6·3	60·9	−1·9	65·9	−4·1	10·0	75·2	12th	53·0	23rd	2
		Lashio										72·0	84·8	+0·4	65·7	−1·7	75·3	−0·7	19·1	90·5	12th, 14th & 30th.	57·0	21st	3
	III.—Assam				+·060								89·0	+1·0	76·5	−0·1	82·8	+0·4	12·5					21
7	Surma	Silchar	104	29·763	+·069	29·819	29·867	25th	29·596	15th	·271	80·4	92·2	+2·5	76·0	−0·3	84·1	+1·1	16·2	99·6	15th	72·3	22nd & 23rd.	2
9	Brahmaputra	Sibsagar	333	29·536	+·060	29·827	29·642	26th	29·415	15th	·227	78·9	88·9	+0·3	76·2	−0·3	82·6	0	12·7	93·2	16th	72·0	19th	2
		Dhubri	115	29·722	+·050	29·792	29·836	26th	29·569	15th	·267	79·5	85·9	+0·1	77·3	+0·3	81·6	+0·2	8·6	91·2	15th	74·8	3rd	1
	IV.—Bengal and Orissa				+·039								87·4	−0·8	77·3	−0·2	82·4	−0·5	10·1					20
6	East Bengal	Chittagong	87	29·750	?	29·785	29·868	25th	29·594	14th	·274	81·4	87·8	+1·2	76·2	0	82·0	+0·6	11·6	93·0	12th	73·1	19th & 20th.	19
		Noakhali	43	29·785		29·775	29·905	26th	29·661	15th	·244	81·2	87·5							92·7	17th			
		Comilla	36	29·807		29·791	29·926	26th	29·667	14th	·259	81·6†	89·2		76·8†		83·2†		12·4	94·3	15th	72·8	19th	21
		Sirajganj	49	29·765		29·764	29·897	26th	29·606	15th	·291	80·3	86·5		77·7		82·1		8·8	92·3	15th	73·7	21st & 25th.	18
		Narayanganj	26	29·804	+·059	29·779	29·930	26th	29·664	15th	·266	81·5	87·5	−1·0	78·7	0	83·2	−0·5	8·8	92·1	13th & 15th.	74·7	19th, 20th & 21st.	17
		Barisal	13	29·810	+·053	29·768	29·939	26th	29·639	18th	·300	82·2	87·3	−0·2	77·9	+0·2	82·6	0	9·4	92·3	10th, 14th & 15th.	73·1	22nd	19
		Mymensingh	59	29·775	+·060	29·785	29·888	25th	29·624	15th	·264	80·8	86·9	−0·7	77·7	+0·6	82·3	−0·1	9·2	93·7	15th	74·6	20th	19
10	Deltaic Bengal	Faridpur	46	29·781		29·775	29·912	26th	29·631	18th	·281	80·9	87·1		77·6		82·4		9·5	91·8	13th & 15th.	73·9	6 days	17
		Jessore	33	29·771	+·036	29·751	29·909	26th	29·587	18th	·322	81·6	87·8	−1·3	77·9	−0·5	82·8	−0·9	9·9	94·5	13th	73·7	22nd & 23rd.	20
		Calcutta	21	29·764	+·033	29·731	29·916	26th	29·551	18th	·365	81·0	87·2	−0·2	77·6	−0·2	82·4	−0·2	9·6	94·5	13th	73·2	25th	21
		Saugor Island	25	29·739	+·015	29·708	29·900	26th	29·520	18th	·380	81·8	87·5	−0·3	79·0	−0·4	83·2	−0·4	8·5	92·4	14th	75·1	29th	17
		Krishnagar	47	29·751		29·747	29·892	26th	29·573	18th	·319	81·4	88·0		77·2		82·6		10·8	94·8	13th	71·7	23rd	23
		Midnapore	149	29·611		29·707	29·755	26th	29·419	18th	·336	81·3	88·4		77·2		82·8		11·2	93·8	15th	73·1	24th & 25th.	20

* Mean of 28 days.

† Mean of 29 days.

India, Burma, etc., in September 1900.

Wind direction, Number of winds from: N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity: Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M.: Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall: Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 30th September 1900.	Normal rainfall for period, 1st June to 30th September.	Variation from normal of period, 1st June to 30th September.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																			23·44	21·76	+2·83					I.—Burma Coast and Bay Islands.		
6	1			5	8	5	1	S. 51° W	3·3	3·3			91	·909	8·6	16			13·07			39·94			2·12	Car Nicobar§	Andaman and Nicobar Islands.	
					13	14	3	S. 74° W.	10·5		9·3	+ 13	90	·923	7·7	20			13·38	19·56	− 6·18	47·39	69·53	− 22·14	3·06	Port Blair		1
7	1						1	N. 24° W.	2·2	2·0	1·5	+ 33	92	·881	5·5	25			35·83	28·78	+ 7·05	128·56	121·25	+ 7·31	5·65	Mergui.		
8					2			S. 45° W.	1·4				93	·897	6·0	22			48·56	33·19	+15·37	204·17	163·50	+40·67	13·10	Tavoy.		
									1·9	2·1	2·8	− 25	90	·881	6·4	16	22·36	−6·36	32·63	28·85	+ 3·78	153·47	149·35	+ 4·12	4·90	Moulmein.		
4	1	4	2	3	6	7	2	1	S. 4° W.	3·1		3·8	− 18	92	·931	7·2	14	19·55	−5·55	14·41	16·04	− 1·63	80·64	73·42	+ 7·22	2·41	Rangoon	Lower Burma.	2
5	2		2	3		4		4	S. 86° W.	3·7		3·4	+ 9	93	·932	6·6	19	21·27	−2·27	18·04	16·00	+ 2·04	102·15	86·69	+15·46	3·33	Bassein.		
2	2	2	3	1	3	7	3	7	S. 88° W.	7·9	7·9	6·8	+ 16	87	·930	7·9	14	18·90	−4·90	19·03	19·19	− 0·16	93·88	91·36	+ 2·52	3·68	Diamond Island.		
	6	6	10	3	3	1		1	N. 72° E.	2·6		3·0	− 13	93	·961	6·5	15	17·73	−2·73	25·55	22·04	+ 3·51	158·28	158·83	− 0·55	5·03	Akyab	Arakan.	5
4	1	1	1	7	3		1	2	S. 41° E.	3·4	3·4	2·8	+ 21	87	·893	6·7	17	17·55	−0·55	13·88	12·21	+ 1·67	67·51	63·23	+ 4·28	2·80	Toungoo	Central Burma	3
																			6·82	8·02	−1·20					II.—Burma Inland.		
9	1	3		9	3			5	S. 60° E.	2·7		4·7	− 43	88	·913	5·5	11	13·36	−2·36	7·85	6·23	+ 1·62	39·85	26·57	+13·28	2·27	Thayetmyo.	Central Burma.	
2	2			12	4	1	2	7	S. 8° E.	5·0	6·0			88	·880	6·4	10			4·87	5·36	− 0·49	26·40	19·92	+ 6·48	0·94	Minbu	Upper Burma.	4
1	2			4	2			1	S. 45° E.	4·9	5·1			87	·869	6·0	12			7·09	6·89	+ 0·20	25·15	20·10	+ 5·05	2·79	Yamethin.		
1	5	1	3	4	3	2	1		S. 70° E.	3·5	3·5			84	·901	4·9	8			3·68	6·54	− 2·86	16·47	18·45	− 1·98	0·85	Mandalay.		
1	4	1			1				N. 11° E.	0·6	0·6			93	·888	7·2	11			13·34	13·27	+ 0·07	70·14	53·60	+16·54	4·96	Kindat.		
1	2	2	2	1		3	6	3	N. 66° W.	2·4	2·8			87	·831	6·2	7			4·10	9·84	− 5·74	45·46	58·10	−12·64	1·48	Bhamo.		
														89	·673												Maymyo	Burma Hill Stations.	4(a)
	4	2		5	8	8	2	1	S. 20° W.					85	·577	4·2	19			11·58	7·34	+ 4·54	45·07	43·10	+ 1·97	2·45	Taunggyi.		
														91	·716	7·2	13			8·50	6·76	+ 1·74	46·82	42·28	+ 4·54	2·61	Lashio.		
																			6·55	13·31	−6·76					III.—Assam.		
7		1	1			1			E	1·5	2·6	2·7	− 4	88	·926	7·8	9	15·85	−6·85	5·87	14·35	− 8·48	57·52	73·84	−16·32	2·21	Silchar	Surma.	7
3	1	7			2	2			N. 54° E.	2·8	2·5	2·5	0	95	·934	5·9	8	14·67	−6·67	9·74	12·22	− 2·48	50·60	59·20	− 8·60	3·30	Sibsagar	Brahmaputra.	9
3	3	5	11	1	3	1		1	N. 79° E.	3·6	4·2	3·2	+ 31	90	·912	7·6	11	12·13	−1·13	4·04	13·35	− 9·31	50·02	67·81	−17·79	1·16	Dhubri.		
																			16·20	11·25	+4·95					IV.—Bengal and Orissa		
		9	6	10	3			2	S. 81° E.	4·9	4·9	4·5	+ 9	85	·919	6·9	7	13·76	−6·76	4·19	12·91	− 8·72	59·78	78·56	−18·78	2·05	Chittagong	East Bengal.	6
	2	3	8	8	6	1	1	1	S. 58° E.	4·1	3·8			88	·938	4·0	13	15·42	−2·42	11·52	15·77	− 4·25	94·93	88·69	+ 6·24	4·66	Noakhali.		
1	1	1	5	10	5			1	S. 50° E.	6·0				84†	·905†	6·7	10	13·12	−3·12	5·04	10·51	− 5·47	58·89	60·94	− 2·05	1·10	Comilla.		
3		1	6	5	2				S. 63° E.	1·3	1·3			91	·947	7·7	13	11·31	+1·69	7·79	9·10	− 1·31	42·01	42·65	− 0·64	1·84	Sirajganj.		
.	2	1	12	5	4	3	1	1	S. 63° E.	6·5		4·6	+ 41	88	·946	7·7	10	11·61	−1·61	6·63	8·51	− 1·88	40·09	47·67	− 7·58	1·92	Narayanganj		
1	1	3		10	7	3	1	2	S. 23° E.	3·1				87	·966	6·7	16	14·61	+1·39	11·34	10·79	+ 0·55	67·07	55·10	+11·97	2·15	Barisal.		
1			4	6		2			S. 49° E.	0·6	0·6			89	·940	7·7‡	10	14·84	−4·84	10·26	12·94	− 2·68	79·12	61·14	+17·98	2·35	Mymensingh.		
.			2	11	3				S. 42° E.	2·3	2·7			92	·973	6·4	14	11·76	+2·24	13·58	8·95	+ 4·63	50·48	45·77	+ 4·71	4·12	Faridpur	Deltaic Bengal.	10
.			2	10	7				S. 33° E.	3·7	3·6	3·4	+ 6	90	·971	7·8	13	11·96	+1·04	22·06	8·09	+13·97	57·43	43·15	+14·28	7·35	Jessore.		
	1	1	8	8	7	2		3	S. 48° E.	5·0		4·5	+ 11	89	·950	7·9	16	13·73	+2·27	45·55	9·33	+36·22	80·66	45·48	+35·18	14·53	Calcutta.		
	2	4	1	7	9	5	1	1	S. 18° E.	14·4		10·1	+ 43	90	·979	7·2	19	13·53	+5·47	29·87	11·23	+18·64	76·54	51·63	+24·91	5·16	Saugor Island.		
	2	2	7	10	8			1	S. 54° E.	5·7				88	·947	7·2	16	10·34	+5·66	29·32	7·31	+22·01	52·65	37·80	+14·35	11·57	Krishnagar.		
:	6	2	3	6	9				S. 56° E.	2·8	3·6			88	·946	4·5	15	12·07	+2·93	20·44	7·66	+12·78	54·76	41·04	+13·72	5·50	Midnapore.		

§ Wind variable 4.

‡ Mean of 23 ays.

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Abstract of Observations taken at 8 A.M. at 219 Stati

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
11	Central Bengal	Bankura	298	29·437		29·687	29·580	30th	29·258	19th	·322	79·8	86·9		76·8		81·8		10·1	94·6	14th	73·6	22nd & 25th.
		Raniganj	334	29·432		29·717	29·560	26th	29·278	18th	·282	79·2	87·4		76·4		81·9		11·0	94·2	14th	72·9	22nd, 23rd & 24th.
		Burdwan	99	29·683	+·024	29·730	29·816	26th	29·502	18th	·314	80·8	87·5	−2·0	77·9	−0·8	82·7	−1·4	9·6	95·9	14th	73·8	23rd & 24th.
		Naya Dumka	489	29·289		29·738	29·417	30th	29·155	18th	·262	80·8	85·9		75·7		80·8		10·2	93·5	14th, 15th & 16th.	70·9	21st
		Berhampore	67	29·729	+·038	29·745	29·858	26th	29·583	18th	·275	81·0	87·3	−1·5	77·6	−0·8	82·5	−1·2	9·7	94·3	15th	72·3	23rd
		Rampur Boalia.	70	29·727		29·747	29·864	26th	29·593	15th & 18th.	·271	81·5	86·9		77·7		82·3		9·2	94·6	16th	72·6	29th
		Malda	72	29·740†		29·764*	29·854	26th	29·599	15th	·255	80·8	86·6		77·5		82·1		9·1	95·1	16th	73·0	25th
		Bogra	61	29·756		29·769	29·887	26th	29·617	15th	·270	80·7	88·0	0	77·8	+0·6	82·8	+0·3	10·2	95·2	15th & 16th.	73·2	20th
12	North Bengal	Dinajpur	123	29·688	+·052	29·766	29·814	26th	29·544	15th	·270	80·0	86·6	−1·9	76·5	−1·0	81·6	−1·5	10·1	94·3	15th & 16th.	72·0	26th
		Rangpur	123	29·703		29·781	29·827	25th	29·559	15th	·268	81·0	88·6		74·9‡		81·8‡		13·7	96·2	16th	70·8	26th
		Jalpaiguri	284	29·561	+·063	29·805	29·677	25th	29·421	15th	·256	78·9	87·6	+0·3	75·6	+0·3	81·6	+0·3	12·0	94·9	15th & 16th.	70·1	24th
		Cooch Behar	156	29·690		29·803	29·808	26th	29·538	15th	·270	80·0	87·6		76·8		82·2		10·8	94·9	15th & 16th.	74·1	20th & 26th.
17	North Bihar	Purnea*	125	29·692	+·064	29·772	29·805	25th	29·570	15th	·235		86·2	−2·7	76·5	−0·8	81·4	−1·8	9·7	94·2	16th	68·7	29th
14	Orissa	Balasore	46	29·717	+·033	29·709	29·877	26th	29·522	19th	·355	81·5	87·1	−0·5	77·5	0	82·3	−0·3	9·6	92·4	14th	75·3	23th
		False Point.	21	29·735	+·012	29·698	29·903	26th	29·544	18th	·359	82·3	86·7	−1·1	78·2	+0·2	82·5	−0·5	8·5	93·5	15th	74·1	23rd
		Cuttack	80	29·668	+·008	29·691	29·831	26th	29·478	19th	·353	81·3	88·9	−0·9	78·0	+0·1	83·5	−0·4	10·9	94·9	15th	74·2	20th
		Puri	20	29·733		29·696	29·903	26th	29·539	19th	·364	83·3	88·7		79·9		84·3		8·8	94·7	15th	75·6	15th
	V.—Gangetic Plain and Chota Nagpur.				**+·031**								**87·1**	**−2·7**	**76·1**	**−0·4**	**81·6**	**−1·6**	**11·0**				
15	Chota Nagpur.	Hazaribagh.	2,007	27·753	+·008	29·714	27·910	30th	27·609	19th	·301	74·7	81·7	−2·7	72·2	+0·1	77·0	−1·3	9·5	89·2	14th & 15th.	68·3	21st, 29th & 30th.
		Ranchi	2,128	27·630	+·009	29·707	27·776	30th	27·453	19th	·323	74·4	81·6	−1·6	71·6	+0·8	76·6	−0·4	10·0	89·2	10th	67·9	30th
		Daltonganj.	730P	28·991		29·681	29·174	30th	28·848	20th	·326	77·8	87·7		74·1		80·9		13·6	94·1	14th & 15th.	70·0	20th & 30th.
		Purulia		28·957		29·722	29·081	30th	28·790	19th	·291	79·2	86·5		76·1		81·3		10·4	93·0	14th	72·4	23rd
		Chaibassa	760	28·976		29·686	29·133	30th	28·762	19th	·371	79·6	86·3	−2·4	75·9	+0·2	81·1	−1·1	10·4	92·6	10th & 15th.	73·0	30th
16	South Bihar	Gaya	375	29·380	+·022	29·711	29·529	30th	29·270	20th	·259	80·0	88·5	−2·3	76·7	−1·2	82·6	−1·8	11·8	95·2	15th & 14th	71·8	20th
		Dehri	351	29·395		29·702	29·560	30th	29·302	20th	·258	80·3	86·7		76·4		81·6		10·3	94·3	16th	68·0	21st
		Patna	183	29·597	+·037	29·733	29·717	30th	29·494	18th	·223	81·1	86·6	−3·6	77·8	−1·3	82·2	−2·5	8·8	94·0	15th & 16th.	72·2	28th
		Arrah	190	29·565		29·708	29·698	30th	29·480	18th	·219	80·9	87·4		77·6		82·5		9·8	95·5	16th	72·5	28th
		Buxar	239	29·520		29·716	29·668	30th	29·437	27th	·231	80·8	87·0		76·9		82·0		10·1	94·0	15th	71·1	28th
17	North Bihar	Bhagalpur	160	29·629		29·743	29·746	30th	29·524	15th	·222	81·1	87·1		77·0		82·1		10·1	94·7	16th	70·1	30th
		Darbhanga.	166	29·620	+·035	29·741	29·733	26th	29·521	15th	·212	80·4	87·2	−1·0	77·1	−1·7	82·2	−1·4	10·1	94·8	16th	69·0	28th, 29th & 30th.
		Muzaffarpur	178	29·619		29·752	29·723	30th	29·526	15th	·197	80·4	87·4		76·7		82·0		10·7	94·7	16th	70·2	28th
		Motihari	224	29·574		29·758	29·684	30th	29·483	9th	·201	80·2	87·7		75·4		81·6		12·3	94·0	16th	69·8	28th
		Chapra	181	29·591		29·726	29·718	30th	29·509	18th	·209	80·8	88·5		77·2		82·9		11·3	96·8	16th	72·1	28th
18	N.-W. Provinces.	Benares	267	29·471	+·013	29·695	29·643	30th	29·310	27th	·333	80·0	87·4	−3·5	77·2	−0·3	82·3	−1·9	10·2	94·3	6th	71·6	28th
		Allahabad	309	29·438	+·019	29·703	29·618	30th	29·250	27th	·368	80·9	88·3	−2·5	76·9	+0·1	82·6	−1·2	11·4	95·1	15th	70·3	28th, 29th & 30th.
23	N.-W. Provinces, (East Sub-montane,)	Gorakhpur	256	29·531	+·058	29·747	29·644	30th	29·406	27th	·238	80·1	88·2	−2·2	76·5	−1·4	82·4	−1·8	11·7	95·5	16th	70·7	28th & 29th.
19	South Oudh	Lucknow	368	29·395	+·036	29·724	29·550	30th	29·285	27th	·265	79·9	88·9	−2·8	76·1	−0·2	82·5	−1·5	12·8	94·3	17th	67·3	30th
20	North Oudh	Bahraich	403	29·379	+·057	29·743	29·514	30th	29·290	9th	·224	81·3	88·7	−1·9	75·9	−0·5	82·3	−1·2	12·8	95·1	17th	71·0	28th & 29th
21	N.-W. Provinces, (Central).	Cawnpore	416	29·339	+·039	29·711	29·508	30th	29·268	27th	·240	79·6	88·7	−3·6	76·5	−0·2	82·6	−1·9	12·2	93·3	17th & 18 h.	69·0	30th
		Mainpuri	516	29·242	+·038	29·719	29·405	30th	29·117	13th	·288	79·3	88·0	−4·4	75·9	0	82·0	−2·2	12·1	94·3	18th	68·0	30th

* Mean of 29 days. † Mean of 18 days. ‡ Mean of 25 days.

—continued.

n India, Burma, etc., in September 1900—continued.

Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind Resultant.	Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Mean humidity.	Mean vapour tension.	Mean cloud amount.	Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 30th September 1900.	Normal rainfall for period 1st June to 30th September.	Variation from normal of period, 1st June to 30th September.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
	Number of Winds from									Wind Velocity.				Hygrometry, 8 A.M.			Rainfall.												
10	1	3	10	3	3				S. 82° E.	4·6	5·3			89	·901	7·5	17	12·69	+ 4·31	18·63	8·03	+10·60	40·03	43·56	− 3·53	3·05	Bankura .	Central Bengal	11
12			10	5	2			1	S. 69° E.	2·9				91	·914	7·1	19	11·76	+ 7·24	16·49	7·33	+ 9·16	36·71	43·05	− 6·34	2·52	Raniganj .		
	2	5	9	3	4	2	1	4	N. 84° E.	4·1	4·1	3·1	+32	89	·942	7·5	17	12·19	+ 4·81	17·55	8·04	+ 9·51	42·17	40·04	+ 2·13	3·92	Burdwan .		
2	1	1	9	8	5	2		2	S. 55° E.	4·1	4·5			87	·853	8·1	19	13·32	+ 5·68	14·74	9·53	+ 5·21	48·19	46·09	+ 2·10	3·21	Naya Dumka		
6	1	1	12	1	8		1		S. 60° E.	4·3	4·6	3·7	+24	90	·950	8·0	15	12·61	+ 2·39	21·96	10·13	+11·83	55·25	41·99	+13·26	7·20	Berhampur.		
5		2	11	6	5	1			S. 61° E.	4·8	4·8			88	·945	7·4	13	12·12	+ 0·88	13·76	10·38	+ 3·38	46·24	42·89	+ 3·35	4·10	Rampur Boalia.		
	12	1	6	6	5				N. 70° E.	5·9	5·5			90	·947	7·1	15	11·35	+ 3·65	12·97	10·85	+ 2·12	45·39	43·49	+ 1·90	4·10	Malda .		
														89	·931	6·3	11	12·04	− 1·04	4·75	10·88	− 6·13	53·20	49·90	+ 3·30	1·05	Bogra .		
	1	7	16	3	3				N. 88° E.	5·5	6·3			89	·910	8·0	14	12·31	+ 1·69	14·43	11·39	+ 3·04	75·72	53·82	+21·90	2·74	Dinajpur .	North Bengal .	12
2		9	12	4	2	1			N. 87° E.	2·3	2·4			89	·944	6·0	11	13·04	− 2·04	8·49	13·72	− 5·23	61·19	61·05	+ 0·14	3·60	Rangpur .		
1	3	15	4	2	2			3	N. 49° E.	1·1	1·4			92	·909	3·4	12	15·04	− 3·04	15·60	22·37	− 6·77	85·69	103·77	−18·08	4·53	Jalpaiguri .		
12	1	2	10	4	1				S. 86° E.	1·6	1·6			88	·906	6·9	11			14·21	22·61	− 8·40	66·96	102·73	−35·77	4·68	Cooch Behar		
2	5	6	8	6				2	N. 68° E.	5·7	8·8	2·0	+34			6·7	18	11·16	+ 6·84	21·45	13·22	+ 8·24	71·45	53·01	+18·44	5·60	Purnea .	North Bihar .	17
11	2	1	1	2	8	4		1	S. 3° W.	2·8				85	·913	5·8	19	14·00	+ 5·00	19·74	12·95	+ 6·79	59·55	47·05	+12·50	3·45	Balasore .	Orissa.	14
	2	2	1	5	8	6	3	3	S. 17° W.	11·1	10·6	7·9	+34	86	·956	8·0	17	13·23	+ 3·77	18·26	11·56	+ 6·70	63·45	47·90	+15·55	3·45	False Point.		
1		1		1	3	10	4		S. 45° W.	2·3		8·4	−73	86	·915	7·0	18	13·15	+ 4·85	21·08	11·07	+10·01	54·96	47·88	+ 7·08	4·09	Cuttack.		
6	3				3	12	3	3	S. 67° W.	11·0	10·8			83	·954	5·8	12	13·11	− 1·11	14·29	10·36	+ 3·93	51·99	38·60	+13·39	3·95	Puri.		
																				11·05	7·49	+3·33					V.—Gangetic Plain and Chota Nagpur.		
1		4	10	3	9	1	1	1	S. 58° E.	10·8	9·6	7·0	+37	88	·759	9·1	17	12·35	+ 4·65	12·62	8·76	+ 3·86	42·35	43·66	− 1·31	4·14	Hazaribagh.	Chota Nagpur.	15
	1	7	5	3	5	5	2	2	S. 45° E.	8·4	9·9			90	·768	8·1	17	14·50	+ 2·50	16·54	9·62	+ 6·92	48·82	46·24	+ 2·58	3·23	Ranchi.		
1	1	10	5	2			1		N. 62° E.	5·4	6·5			88	·853	4·9	16	10·73	+ 5·27	9·20	7·79	+ 1·41	33·13	39·10	− 5·97	2·58	Daltonganj.		
		4	7	4	3				S. 77° E.	1·5				88	·869	5·7	16			15·97			36·83			4·75	Purulia.		
		2	5	1	1	3	2		S. 56° E.	0·6	0·5			89	·895	6·0	20	12·31	+ 7·69	18·12	8·05	+10·07	48·25	43·10	+ 5·15	3·30	Chaibassa.		
		14	1	5	2		3		N. 70° E.	8·8	8·0	2·3	+248	86	·890	6·4	12	9·31	+ 2·69	8·93	6·89	+ 2·04	29·42	39·05	− 9·63	2·12	Gaya .	South Bihar.	16
		3	13	3	4	2	4		S. 67° E.	11·5	13·3			86	·892	6·9	12	10·07	+ 1·93	9·22	6·81	+ 2·41	28·74	37·07	− 8·33	1·60	Dehri.		
		12	12	4				1	N. 75° E.	7·0	8·3	2·9	+186	87	·933	7·4	11	9·65	+ 1·35	8·50	7·40	+ 1·10	41·91	37·79	+ 4·12	4·38	Patna.		
		2	14	5	4		1	1	S. 74° E.	3·3	3·5			87	·912	5·5	7	9·81	− 2·81	7·92	7·19	+ 0·73	36·24	36·95	− 0·71	3·62	Arrah.		
			21	2		1	4	1	S. 87° E.	5·9	5·4			85	·897	6·8	14	9·19	+ 4·81	8·86	7·17	+ 1·69	28·89	35·38	− 6·49	1·92	Buxar.		
		10	6	6	1	1	1		N. 86° E.	5·3	5·0			87	·924	8·0	12	9·42	+ 2·58	9·88	7·37	+ 2·51	58·66	38·44	+20·22	4·06	Bhagalpur .	North Bihar.	17
		2	13	10					S. 75° E.	3·4		3·6	− 6	87	·912	6·3	7	9·16	− 2·16	12·12	8·94	+ 3·18	40·38	41·36	− 0·98	4·52	Darbhanga.		
		2	8	6					S. 78° E.	4·7	4·1			91	·937	4·0	11	8·96	+ 2·04	9·14	8·92	+ 0·22	36·31	39·31	− 3·00	2·42	Muzaffarpur		
		7	21	1				1	N. 79° E.	7·6				88	·912	3·6	14	9·04	+ 4·96	13·82	9·45	+ 4·37	41·47	44·21	− 2·74	6·58	Motihari.		
		3	19	5			2	1	S. 87° E.	4·5	5·6			86	·905	6·2	9	8·38	+ 0·62	9·50	6·94	+ 2·56	33·70	35·65	− 1·95	5·27	Chapra.		
			14	5	1	1	1	1	S. 73° E.	3·9	4·4	3·9	+13	89	·900	7·4	18	8·91	+ 9·09	10·90	6·59	+ 4·31	27·93	34·29	− 6·36	4·90	Benares .	N.-W. Provinces (East.)	18
1	6	12		2	1	3	3	1	N. 83° E.	9·9	11·3	5·3	+113	87	·909	7·7	14	7·73	+ 6·27	6·71	6·05	+ 0·66	28·40	35·17	− 6·77	1·58	Allahabad.		
4	14	7			1			2	N. 47° E.	2·6		2·1	+24	86	·894	6·6	9	8·55	+ 0·45	12·62	8·56	+ 4·06	29·30	43·84	−14·54	4·36	Gorakhpur	N.-W. Provinces (East Sub-montane).	23
4	6	11		4	1	1	3		N. 74° E.	3·5	3·8	2·8	+36	85	·872	7·6	12	7·55	+ 4·45	9·65	6·27	+ 3·38	28·90	34·73	− 5·83	2·20	Lucknow .	South Oudh.	19
3		19			3		1	2	S. 88° E.	3·5	3·3			85	·905	2·9	8			15·64	7·45	+ 8·19	35·41	35·08	+ 0·33	6·45	Bahraich .	North Oudh.	20
1	5	8		1	2	1		1	N. 80° E.	2·8				88	·877	5·9	11	6·80	+ 4·20	6·25	5·06	+ 1·29	30·14	28·02	+ 2·12	1·43	Cawnpore .	N.-W. Provinces (Central).	21
1	1	12		3	3		2		S. 76° E.	2·0	2·0			86	·869	6·5	11			10·36	6·09	+ 4·87	30·59	30·00	+ 0·59	2·60	Mainpuri.		

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Abstract of Observations taken at 8 A.M. at 219 Stat

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	VI.—Upper Sub-Himalayas.				+·050								88·1	−4·6	74·5	+0·9	81·3	−1·9	13·6				
24	N.-W. Provinces (West Sub-montane.)	Bareilly	569	29·201	+·054	29·737	29·340	30th	29·086	13th	·254	79·0	88·4	−1·9	75·5	−0·4	82·0	−1·2	12·9	92·9	7th	66·7	30th
		Dehra Dun	2,233	27·579	+·046	29·769	27·673	30th	27·499	13th	·174	73·4	81·6	−2·7	69·6	−0·7	75·6	−1·7	12·0	87·0	17th & 20th.	61·5	29th
		Roorkee	887	28·893	+·054	29·754	29·008	30th	28·792	13th	·216	77·5	86·3	−4·9	73·4	−0·2	79·9	−2·6	12·9	92·2	17th	64·3	29th
22	N.-W. P. West.	Meerut	738	29·027	+·047	29·735	29·165	30th	28·905	13th	·260	78·0	88·1	−3·5	74·5	−0·2	81·3	−1·8	13·6	93·6	5th	65·8	30th
23	South-East Punjab.	Delhi	718	29·048	+·043	29·734	29·207	30th	28·921	13th	·286	79·3	85·6	−7·0	76·3	−0·3	81·0	−3·7	9·3	91·2	11th	70·1	30th
28	Central Punjab.	Lahore	702	29·059	+·054	29·735	29·211	30th	28·943	8th	·268	79·8	91·9	−4·8	75·5	+2·5	83·7	−1·2	16·4	105·1	1st	64·9	30th
27	South Punjab	Sirsa	662	29·073	+·022	29·702	29·231	30th	28·956	13th	·265	80·0	91·6	−6·6	75·3	+0·3	83·5	−3·2	16·3	102·3	1st	68·1	28th & 29th.
		Patiala	818	28·960		29·749	29·106	30th	28·852	13th	·254	79·7	87·1		74·7		80·9		12·4	93·4	18th	65·4	30th
29	Punjab Sub-montane.	Ludhiana	812	28·947	?	29·733	29·091	30th	28·850	8th	·241	78·5	87·6	−7·2	75·4	+0·5	81·5	−3·4	12·2	94·1	18th	66·1	29th
		Sialkot	830	28·941	+·066	29·747	29·080	30th	28·835	8th	·245	79·4	91·4	−3·9	76·3	+3·0	83·9	−0·5	15·1	103·2	1st	65·1	28th
		Umballa	892	28·886	+·063	29·752	29·012	30th	28·797	13th	·215	77·2	86·3	−6·2	74·4	+0·8	80·4	−2·7	11·9	92·5	18th	65·0	29th
21	North Punjab	Rawalpindi	1,676	28·110	+·050	29·760	28·247	30th	27·969	1st	·278	78·9	91·2	−2·2	72·9	+4·2	82·1	+1·0	18·3	104·1	1st	58·0	30th
	VII.—Indus Valley and North-West Rajputana.				+·038								96·7	−0·3	78·0	+2·9	87·4	+1·3	18·8				
31	North Punjab	Peshawar	1,110	28·671	+·040	29·766	28·842	24th	28·526	11th	·316	79·7	91·5	−1·2	74·3	+4·3	84·4	+1·6	20·2	106·0	1st	58·0	30th
32	West Punjab	Khushab	612	29·148	+·063	29·733	29·297	30th	29·013	8th	·284	81·3	95·6	−3·6	76·8	+1·2?	86·2	−1·2?	13·8	106·3	1st	57·7	29th
		Montgomery	558	29·190	+·045	29·713	29·351	30th	29·070	8th	·281	84·3	97·8	−3·9	77·3	+1·4	87·6	−1·3	20·5	107·0	2nd	65·5	29th
		D. I. Khan	594	29·172	+·045	29·711	29·331	30th	29·028	8th & 11th.	·303	83·0	98·5	−1·3	78·3	+3·0	88·4	+0·9	20·2	106·7	9th	66·1	28th, 29th & 30th.
		Mooltan	420	29·312	+·033	29·699	29·492	30th	29·186	11th	·306	85·4	100·8	+1·1	81·0	+3·6	90·9	+2·4	19·8	107·4	19th	70·5	28th
47	Sind	Jacobabad	186	29·530	+·023	29·675	29·721	30th	29·430	13th	·291	86·5	105·2	+2·2	80·6	+4·7	92·9	+3·5	24·6	109·3	4th & 5th.	66·1	30th
		Hyderabad	96	29·647	+·032	29·695	29·839	30th	29·542	13th	·297	83·7	99·0	+1·8	78·4	+2·2	88·7	+2·0	20·6	103·1	14th	70·0	28th
		Kurrachee	30	29·765	+·021	29·746	29·947	30th	29·667	9th	·280	82·4	91·8	+1·7	79·7	+2·7	85·8	+2·2	12·1	101·4	28th	74·2	5th
51	West Rajputana	Bikaner	771	28·976	?	29·714	29·136	30th	28·857	13th	·279	83·2	94·8	−3·1	78·2	+1·5	86·5	−0·8	16·6	101·6	1st	70·5	27th
		Pachpadra	380	29·396		29·734	29·565	30th	29·272	13th	·293	82·0	94·4		77·0		85·7		17·4	99·2	27th	71·5	29th
		Jodhpur	782	28·982		29·747	29·159	30th	28·832	13th	·327	80·2	91·6		76·0		83·9		15·6	97·1	5th & 12th.	69·8	29th
	VIII.—East Rajputana, Central India and Gujarat.				+·019								87·7	−2·0	75·1	+1·2	81·4	−0·4	12·6				
50	East Rajputana	Jaipur	1,431	28·359	+·019	29·754	28·521	30th	28·213	13th	·308	79·0	88·7	−4·1	74·8	+2·3?	81·8	−0·9?	13·9	92·2	9th, 18th & 29th.	68·1	30th
		Kotah	819	28·938			29·115	30th	28·832	12th	·283	79·3	87·3		76·0		81·7		11·3	91·0	20th	72·6	29th
		Sambhar	1,254	28·527	+·032	29·748	28·698	30th	28·386	13th	·312	78·6	88·3	−3·3?	75·2	+1·3	81·8	−1·0?	13·1	92·4	9th	67·5	30th
		Ajmer	1,611	28·178	+·018	29·759	28·338	30th	28·054	13th	·284	77·3	86·4	−4·0	73·8	+0·9	80·1	−1·6	12·6	89·9	9th & 12th.	65·2	30th
		Udaipur	1,925	27·883		29·767	28·058	30th	27·766	13th	·292	76·6	83·7		72·1		77·9		11·6	87·0	28th & 30th.	64·3	29th
		Deesa	466	29·344	+·020	29·767	29·516	30th	29·237	13th	·279	80·0	90·0	−2·3	75·9	+2·2	83·0	−0·1	14·1	95·6	27th	69·0	30th
49	Kathiawar and Cutch.	Bhuj‡	395	29·426	+·034	29·775	29·590	30th	29·333	13th	·257	81·2	91·7	+0·1	76·1	+1·4	84·0	+0·8	15·6	100·3	25th	68·9	27th
		Jamnagar	61	29·765		29·772	29·933	30th	29·663	13th	·270	81·9	90·1		75·5		82·8		14·6	93·5	25th	68·7	30th
		Rajkot	429	29·403	+·025	29·788	29·566	30th	29·310	12th	·256	78·7	90·9	0	73·1	+0·5	82·0	+0·3	17·8	94·9	28th	66·4	30th
		Veraval		29·932	+·016	29·792	29·971	30th	29·753	12th	·218	79·6	83·8	+0·2	77·2	+1·0	80·5	+0·6	6·6	86·1	22nd	70·3	30th
		Bhavnagar Para	35	29·792	+·006	29·773	29·944	30th	29·708	13th	·236	80·2	91·4	−1·0	75·5	−0·3?	83·5	−0·7?	15·9	96·1	27th	69·8	30th
45	Central India	Nowgong	757	28·992	+·007	29·711	29·182	30th	28·934	13th	·248	78·3	85·6	−4·9	75·4	+0·6	80·5	−2·2	10·2	89·5	6th & 18th.	70·0	30th
		Indore	1,823	27·985	+·018	29·769	28·159	30th	27·895	12th	·264	74·3	82·0	−2·8	71·0	+0·9	76·5	−1·0	11·0	86·3	11th	64·1	29th & 30th.
		Neemuch	1,630	28·180	+·010	29·780	28·352	30th	28·084	12th	·268	75·1	83·3	−4·1	72·1	+1·5	77·7	−1·3	11·2	87·5	16th, 23rd & 28th.	65·0	29th
4	Gujarat	Surat	39	29·809	+·013	29·791	29·963	30th	29·723	13th	·240	81·7	89·3	+1·1	77·7	+2·3	83·5	+1·7	11·6	94·2	24th	75·0	29th
		Ahmedabad	164	29·680	+·032	29·792	29·851	30th	29·591	12th & 13th.	·260	80·5	90·8	−0·4	77·1	+1·1	84·0	+0·4	13·7	95·2	24th & 27th.	72·6	28th

‡ Mean of 28 days.

—continued.

India, Burma, etc., in September 1900—continued.

Calm.	Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 30th September 1900.	Normal rainfall for period, 1st June to 30th September.	Variation from normal of period, 1st June to 30th September.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				10·09	5·07	+5·05					VI.—Upper Sub-Himalayas.		
7			9	2			1	1	S. 86° E.	1·1	1·0	3·0	−67	88	·866	5·8	9	6·73	+2·27	10·98	8·00	+2·98	35·90	44·36	− 8·46	3·80	Bareilly	N.-W. Provinces, (West Sub-montane).	24
8					1		1		S. 45° W.	0·6		1·1	−45	86	·714	6·7	16	10·30	+5·70	15·57	10·38	+5·19	66·67	78·88	−12·21	2·35	Dehra Dun.		
4				3	1			2	S. 24° E.	1·1		2·0	−45	87	·812	5·9	15	5·55	+9·45	11·11	7·17	+3·94	40·07	37·92	+ 2·15	1·91	Roorkee.		
0		3	6	1					N. 84° E.	1·0		2·1	−52	88	·838	6·4	12	4·55	+7·45	16·86	5·74	+11·12	40·87	28·31	+12·56	4·65	Meerut	N.-W. Provinces, West.	22
7		2	11	6	2	1	1		S. 70° E.	3·3	3·1	3·8	−18	86	·865	5·8	14	4·09	+9·91	19·38	4·23	+15·15	29·59	26·15	+ 3·44	6·10	Delhi	South-East Punjab.	26
6	2	2	9	5	4		1	1	S. 76° E.	2·7		2·0	+35	85	·871	4·6	8	2·55	+5·45	7·13	2·49	+4·64	19·16	16·83	+ 2·33	2·67	Lahore	Central Punjab	28
	1	8	2	12		5	1	1	S. 67° E.	5·1	6·0	3·6	+67	89	·907	2·3	4	2·73	+1·27	2·31	1·79	+0·52	4·95	12·33	− 7·44	1·50	Sirsa	South Punjab.	27
5	4		10	3	5	2	1	2	S. 79° E.	4·2				85	·866	5·8	11			9·81			34·17			2·31	Patiala.		
2	1	3	1	7	1		5		S. 45° E.	2·3	2·0	1·1	+82	87	·858	5·4	10	3·36	+6·64	11·33	4·38	+6·95	44·70	24·06	+20·64	5·46	Ludhiana	Punjab (Sub-montane).	29
2	2	8	9	3	2		1	3	N. 69° E.	3·2		1·6	+100	83	·828	4·5	11	2·82	+8·18	5·49	3·11	+2·38	21·88	25·58	− 3·70	1·28	Sialkot.		
1			1	5				3	S. 60° E	1·4				92	·868	5·8	10			4·63	5·31	−0·68	27·68	27·75	− 0·07	0·95	Umballa.		
4			1	3	1	1			S. 33° E.	1·6	1·5	1·3	+15	78	·788	2·8	5	4·27	+0·73	6·45	3·13	+3·32	18·31	22·75	− 4·44	2·82	Rawalpindi	North Punjab.	31
																				1·65	0·89	+0·76					VII.—Indus Valley and North-West Rajputana.		
8	5	2			1		2	2	N. 16° W.	1·7	1·9	3·1	−39	77	·785	4·4	3	1·82	+1·18	0·71	0·64	+0·07	2·31	5·48	−3·17	0·30	Peshawar	North Punjab.	31
1		11	10	1	2	2	1	2	N. 71° E.	7·4	8·6			72	·782	3·1	5	1·60	+3·40	3·09	1·41	+1·68	6·16	6·98	−0·82	1·16	Khushab	West Punjab.	32
	2	3	5	8	4	6	1	1	S. 37° E.	9·0	7·7			67	·787	2·6	3	1·40	+1·60	1·71	0·99	+0·72	2·16	7·97	−5·81	0·85	Montgomery		
5	2	7		6					N. 73° E.	1·9	2·0	1·7	+18	72	·812	2·6	2	0·73	+1·27	0·48	0·23	+0·25	2·34	5·07	−2·73	0·30	D. I. Khan		
9		3	2	5	6	5			S. 20° E.	2·2	2·7	2·8	− 4	70	·848	2·2	0	0·55	−0·55	0	0·42	−0·42	1·72	5·53	−3·81	0	Mooltan.		
3			5	8	3			1	S. 51° E.	1·7	1·8	3·1	−42	65	·817	0·8	1	0·18	+0·82	0·15	0·06	+0·09	3·50	2·73	+0·77	0·15	Jacobabad	Sind.	47
3	2				2	22	1		S. 47° W.	8·8*	9·2*	12·5	−26	66	·758	1·7	0	0·80	−0·80	0·04	0·52	−0·48	3·73	6·03	−2·30	0·04	Hyderabad.		
1					1	7	17	4	S. 83° W.	11·3	14·1	14·9	− 5	79	·875	5·0	0	0·82	−0·82	0·02	0·54	−0·52	1·69	6·08	−4·39	0·02	Kurrachee.		
3	1	3	3	3	4	5	6	2	S. 36° W.	7·6		5·6	+36	79	·895	4·4	5			3·24	1·19	+2·05	8·40	9·64	−1·24	1·15	Bikaner	West Rajputana	51
1	1	1	3	1	5	9	6	3	S. 51° W.	7·7	8·9	6·1	+46	77	·837	4·6	8			2·61	1·72	+0·89	5·81	8·83	−3·02	0·60	Pachpadra.		
6		2	1	1	1	10	8	1	S. 62° W.	3·9	3·5			78	·799	5·9	5			6·10	2·04	+4·06	14·37	12·79	+1·58	2·90	Jodhpur.		
																				5·97	4.92	+1·03					VIII.—East Rajputana, Central India and Gujarat		
4	4	9	2	1	1	1	3	5	N. 9° E.	3·1		5·2	−40	83	·813	6·7	7	5·00	+2·00	5·45	4·40	+1·05	21·11	26·33	− 5·22	1·82	Jaipur	East Rajputana	50
4	7	2				1	8	8	N. 44° W.	4·5	5·3			84	·838	5·9	11			9·22	5·16	+4·06	38·55	27·50	+11·15	2·47	Kotah.		
7	4	3	5		2		4	5	N. 3° W.	4·6		7·2	−36	84	·811	7·0	9	3·50	+5·50	5·55	3·33	+2·22	18·26	20·44	− 2·18	2·01	Sambhar.		
7	1	6		1		4	7	4	N. 59° W.	4·6		5·0	− 8	87	·817	6·2	10	3·18	+6·82	7·37	2·53	+4·84	23·47	19·73	+ 3·74	3·60	Ajmer.		
4		2			1	2	6	5	N. 75° W.	1·0	1·0			82	·737	6·1	12			11·60			36·06			4·17	Udaipur.		
	1	4			3	5	11	6	N. 84° W.	7·3†		8·5	−14	84	·847	7·0	5	3·73	+1·27	4·67	4·83	−0·16	28·56	25·58	+ 2·98	2·23	Deesa.		
	1				1	3	22	1	S. 87° W.	11·2		11·3	0	85	·895	5·8	1			1·57	1·96	−0·39	17·11	13·54	+ 3·57	1·33	Bhuj	Kathiawar and Cutch.	46
					7	19	2	2	S. 42° W.	12·5	13·3			79	·864	3·4	2			0·67			21·91			0·45	Jamnagar.		
						4	24	2	S. 87° W.	10·0	9·9	8·5	+16	85	·836	4·0	7	5·73	+1·27	2·06	4·25	−2·19	39·47	27·42	+12·05	0·67	Rajkot.		
	1			1	1	2	21	4	N. 88° W.	7·8	9·2	8·6	+ 7	87	·876	5·5	6			0·97	1·85	−0·88	34·53	18·96	+15·57	0·20	Veraval.		
	2					4	18	6	N. 82° W.	5·1†	5·3†			82	·841	5·6	14			7·14	5·16	+1·98	31·01	21·22	+ 9·79	1·36	Bhavnagar Para.		
4	2	3	8	2	1	2	7	1	N. 67° E.	2·7	2·7	2·4	+13	91	·887	7·4	17	6·91	+10·09	8·47	6·32	+2·15	27·57	40·79	−13·22	1·25	Nowgong	Central India.	49
3	2	2				3	13	2	N. 80° W.	2·5		4·8	−48	90	·766	8·9	13	8·91	+4·09	8·49	8·48	+0·01	33·98	31·61	+ 2·37	2·41	Indore.		
		7	1			7	7	8	N. 64° W.	7·2	6·5	10·2	−26	92	·810	7·2	13	6·91	+6·09	13·06	5·35	+7·71	37·63	30·06	+ 7·57	3·51	Neemuch.		
5	1					13	4	6	S. 77° W.	2·9	4·8	9·2	−48	80	·876	7·1	4	7·55	−3·55	2·77	8·07	−5·30	34·09	44·[illegible]	−1[illegible]	1·06	Surat	Gujarat.	45
	3	2		1		8	1	15	N. 60° W.	4·2				83	·862	6·6	5			2·78	5·34	−2·56	1[illegible]·44	3[illegible]·28	−2[illegible]	1·21	Ahmedabad.		

* Mean of 17 days. † Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 219 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
22	N.-W. P., West	Agra	555	29·203	+·026	29·720	29·373	30th	29·065	13th	·308	80·4	89·6	−2·6?	77·4	+1·0	83·5	−0·8?	12·2	94·0	6th	70·9	30th	23·1
21	N.-W.P., Central	Jhansi	858	28·904	+·015	29·725	29·091	30th	28·797	13th	·294	77·9	85·8	−5·1	76·1	+1·0	81·0	−2·1	9·7	90·2	16th	72·1	22nd	18·1
	IX.—Deccan				**+·008**								**85·9**	**−0·6**	**71·7**	**+0·8**	**78·9**	**+0·1**	**14·2**					**23·4**
38	Bombay, Deccan	Belgaum	2,539	27·359	+·027	29·842	27·433	6th	27·287	12th	·146	71·1	79·4	+0·9	66·1	+0·9	72·8	+0·9	13·3	86·3	30th	64·8	7 days	21·5
		Sholapur	1,590	28·274	+·020	29·820	28·387	28th	28·186	23rd	·201	76·5	90·4	+2·4	72·1	+1·9	81·3	+2·2	18·3	95·2	2nd & 22nd.	70·5	7th & 28th.	24·7
		Poona	1,840	28·034	+·019	29·831	28·139	30th	27·952	24th	·187	74·4	83·0	−0·8?	69·0	+0·3	76·0	−0·3?	14·0	88·5	17th	65·4	28th	23·1
		Bijapur	1,946	27·938	+·029	29·835	28·038	28th	27·859	12th	·179	74·7	89·4	+4·0	70·0	+0·4	79·7	+2·2	19·4	93·7	22nd	68·3	2nd	25·4
40	Khandesh	Malegaon	1,430	28·396	+·008	29·782	28·552	30th	28·308	24th	·244	77·9	89·6	+2·5	71·3	+1·3	80·5	+1·9	18·3	95·4	13th	64·3	29th	31·1
		Ahmednagar	2,152	27·727	?	29·824	27·835	30th	27·635	24th	·200	75·3	87·8	+3·4	67·5	−0·4	77·7	+1·5	20·3	92·9	18th	62·5	16th & 28th.	30·4
41	Berar	Akola	930	28·869	+·011	29·755	29·039	30th	28·751	24th	·288	77·7	87·4	−0·9	73·1	+0·7	80·3	+0·1	14·3	91·9	14th & 15th.	70·2	30th	21·7
		Amraoti	1,215	28·573	+·014	29·748	28·742	30th	28·453	24th	·289	76·5	85·7	−2·0	72·6	+0·9	79·2	−0·6	13·1	91·2	15th	69·8	22nd & 30th.	21·4
42	Central Provinces, West.	Khandwa	1,044	28·748	+·012	29·757	28·931	30th	28·613	24th	·288	76·8	85·4	−2·0	73·5	+0·6	79·5	−0·7	11·9	89·2	17th	66·1	30th	23·1
		Hoshangabad	1,006	28·759	+·006	29·730	28·976	30th	28·631	25th	·345	76·8	85·8	−2·2	74·1	+0·9	80·0	−0·7	11·7	90·2	19th	67·2	30th	23·0
		Nagpur	1,025	28·718	−·016	29·703	28·911	30th	28·586	19th	·325	77·6	87·4	−1·4	74·8	+1·2	81·1	−0·1	12·6	93·1	15th	71·6	30th	21·5
43	Central Provinces, Central.	Chanda	634	29·149	−·017	29·731	29·320	30th	29·000	19th	·320	79·2	87·6	−1·2	75·8	+1·6	81·7	+0·2	11·8	94·2	1st & 15th.	73·8	26th & 30th.	20·4
		Seoni	2,033	27·725	−·010	29·704	27·924	30th	27·612	24th	·312	74·5	82·8	−2·5	71·4	+0·8	77·1	−0·9	11·4	87·3	4th, 10th & 13th.	67·5	30th	19·8
		Jubbulpore	1,327	28·398	?	29·688	28·599	30th	28·296	26th	·303	76·1	84·2	−2·8	73·4	+0·6	78·8	−1·1	10·8	89·4	13th & 14th.	69·1	21st	20·3
		Saugor	1,807	27·962	−·008	29·729	28·156	30th	27·901	25th	·255	74·6	82·1	−3·9	71·9	+0·9	77·0	−1·5	10·2	87·4	4th	67·1	30th	20·3
49	Central India	Sutna	1,040	28·693	+·001	29·698	28·896	30th	28·624	26th	·272	78·3	84·6	−2·6	75·5	+1·2	80·1	−0·7	9·1	89·4	13th	70·6	21st	18·8
44	Central Provinces, East.	Raipur	970	28·763	−·010	29·684	28·963	30th	28·589	19th	·374	78·0	87·1	−0·4	74·1	−0·4	80·6	−0·4	13·0	92·3	16th	70·6	20th	21·7
		Sambalpur	486	29·249	?	29·686	29·433	30th	29·052	19th	·381	79·7	87·2	−1·3	77·0	−0·2	82·1	−1·0	10·2	93·1	15th	72·2	20th	20·9
39	Hyderabad (North).	Indur										76·3	85·8		73·4		79·6		12·4	91·9	15th	69·2	19th & 20th.	22·7
		Bidar	2,165?	27·625		29·730	27·642	22nd	27·583	16th	·059	74·0	83·4		53·3		68·4		30·1	90·8	1st	51·2	3rd	39·6
53	Hyderabad (South).	Gulbarga	1,502	28·371		29·831	28·501	28th	28·289	24th	·212	76·0	88·2		72·2		80·2		16·0	93·6	1st	70·6	27th & 30th.	23·0
		Raichur	1,309	28·562	+·022	29·826	28·677	28th	28·479	23rd	·198	77·3	89·0	+1·8	72·8	+0·8	80·9	+1·3	16·2	95·1	1st	70·6	27th	24·5
		Hyderabad (Deccan).	1,690	28·137	+·021	29·780	28·273	28th	28·026	23rd	·247	75·6	84·3	−2·0	72·3	+1·9	78·3	−0·1	12·0	90·4	30th	70·2	19th, 20th & 21st.	20·2
		Secunderabad.	1,787	28·049	+·007	29·790	28·190	28th	27·941	23rd	·249	74·9	85·4	−0·9	71·7	+1·3	78·6	+0·2	13·7	91·1	1st	70·0	4 days	21·1
		Hanumkonda.	865	28·913		29·728	29·050	28th	28·793	23rd	·257	78·1	85·5		74·1		79·8		11·4	91·0	10th & 12th.	67·3	28th	23·7
	X.—West Coast				**+·026**								**83·8**	**+0·4**	**75·5**	**+1·0**	**79·7**	**+0·7**	**8·3**					**13·4**
37	Konkan	Bombay	37	29·853	+·023	29·830	29·959	30th	29·775	24th	·184	80·3	85·0	+0·7	77·7	+1·4	81·3	+1·1	7·3	87·5	7th	75·0	21st	12·5
		Ratnagiri	110	29·789	+·033	29·838	29·876	6th	29·719	13th	·157	79·2	84·4	+0·5	75·3	+1·1	79·9	+0·8	9·1	85·9	5 days	73·4	1st	12·5
		Mormugao	60	29·871	+·030	29·866	29·951	6th	29·797	13th	·154	78·9	83·9	+0·4	76·3	+1·1	80·1	+0·8	7·6	85·5	16th & 28th.	73·9	11th	11·6
		Goa	199	29·713	+·023	29·850	29·791	6th	29·642	13th	·149	79·3	83·1	+0·6	76·7	+1·3	79·9	+1·0	6·4	85·0	14th	74·0	29th	11·0
		Karwar	44	29·886	+·028	29·862	29·965	6th	29·813	12th	·152	77·6	83·5	+0·9	75·0	+1·5	79·3	+1·2	8·5	85·2	30th	73·5	5 days	11·7
33	Malabar	Cochin	11	29·961	+·025	29·899	30·041	6th	29·906	12th	·135	78·2	85·9	+1·6	75·0	+0·8	80·4	+1·2	10·9	91·0	29th	72·7	4th	18·3
		Calicut	27	29·933	+·021	29·889	30·025	6th	29·859	12th	·166	76·9	82·9	−1·3	74·3	+0·4	78·6	−0·5	8·6	87·8	30th	72·0	9th	15·8
		Mangalore	65	27·894	+·026	29·891	29·960	6th	29·828	12th	·132	77·3	83·0	−0·2	74·1	+0·3	78·6	+0·1	8·9	88·3	22nd	71·9	7th	16·4
		Trivandrum	198	29·750	?	29·881	29·892	20th	29·693	12th	·109	77·8	82·4	−0·5	75·2	+2·4?	78·8	+1·0?	7·2	84·5	30th	74·0	9th & 12th.	10·5
	XI.—South India				**+0·19**								**90·2**	**−0·1**	**74·6**	**+0·6**	**82·4**	**+0·2**	**15·6**					**24·1**
57	Madras (South).	Pamban	37	29·864		29·828	29·905	25th & 27th	29·825	3rd	·080	84·1	90·7		76·0		83·4		14·7	92·8	23rd	74·2	15th, 16th & 17th.	18·6
		Tinnevelly	168	29·746	+·033	29·843	29·815	28th	29·666	12th	·149	85·2	97·5	−0·1	79·2	+0·5	88·4	+0·2	18·3	101·3	5th	74·9	24th	26·4
		Madura	447	29·451	+·022	29·835	29·527	25th	29·351	12th	·176	81·7	94·3	−1·5	76·0	+0·9	85·2	−0·3	18·3	97·5	22nd & 24th.	72·5	7th	25·0
		Periyakulam		28·966			29·034	28th	28·868	12th	·166	78·8	93·0		72·1		82·6		20·9	100·5	27th	66·1	21st	34·4

—continued.

India, Burma, etc., in September 1900—continued.

Wind direction. Number of winds from: N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind Resultant.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 30th September, 1900.	Normal rainfall for period, 1st June to 30th September.	Variation from normal of period, 1st June to 30th September.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
1	9		10		5		5	S. 83° E.	3·8	4·5	4·1	+10	86	·888	5·9	12	5·45	+6·55	7·69	4·91	+2·78	19·20	26·62	−7·42	2·28	Agra	N.-W. P., West	22
5	6	8	1	2	1	6	1	N. 75° E.	3·4		3·2	+ 6	89	·857	4·6	16	7·00	+9·00	7·92	6·80	+1·12	35·37	36·79	− 1·42	1·62	Jhansi	N.-W. P., Central	24
																			9·14	7·61	+1·49					IX.—Deccan.		
2				1		14	13	N. 71° W.	17·3		16·7	+ 4	88	·671	7·8	3	10·18	−7·18	0·90	4·64	− 3·74	57·54	35·34	+22·20	0·22	Belgaum	Bombay Deccan.	38
1	1				7	6	15	N. 73° W.	11·9	8·6	9·9	−13	72	·651	7·2	9	9·72	−0·72	4·18	8·16	− 3·98	15·97	24·85	− 8·88	2·19	Sholapur.		
			1		11	14	4	S. 76° W.	13·3	15·0	11·4	+32	82	·694	7·1	5	8·18	−3·18	2·73	5·21	− 2·48	25·04	20·03	+ 5·01	0·94	Poona.		
1					6	15	8	N. 84° W.	7·9*	7·7*			77	·668	4·4	6	8·60	−2·60	1·39	3·39	− 2·00	10·30	9·50	+ 0·80	0·27	Bijapur.		
2	1				5	20	2	N. 89° W.	9·2	10·6	7·6	+39	74	·702	3·0	8	8·64	−0·64	3·70	6·92	− 3·22	12·90	20·46	− 7·56	1·70	Malegaon	Khandesh.	40
1 2	1	1			2	10	13	N. 61° W.	9·2	11·2			82	·713	4·8	7			4·16	7·39	− 3·23	18·97	18·09	+ 0·88	2·05	Ahmednagar.		
					1	19	10	N. 76° W.	9·4	10·2	5·8	+76	82	·774	6·5	7	10·18	−3·18	8·27	7·22	+ 1·05	40·64	30·94	+ 9·70	5·10	Akola	Berar.	41
2					5	18	5	N. 85° W.	10·6	9·4	4·4	+114	87	·794	6·9	7	8·27	−1·27	10·12	6·94	+ 3·18	30·14	31·20	− 1·06	3·39	Amraoti.		
1						19	10	N. 73° W.	9·0		6·2	+45	87	·792	7·2	12	7·55	+4·45	13·38	7·56	+ 5·82	37·95	29·57	+ 8·38	4·87	Khandwa	Central Provinces, West.	42
	3		2		18		6	S. 56° W.	5·7	5·8	2·5	+132	62	·573	7·4	16	10·18	+5·82	8·29	11·61	− 3·32	45·16	51·92	− 6·76	1·23	Hoshangabad.		
2 3					2	8	5	N. 68° W.	6·6		6·1	+ 8	87	·826	7·4	15	10·64	+4·36	11·23	10·13	+ 1·10	48·88	43·85	+ 5·03	2·19	Nagpur.		
5				1	4	17	3	S. 86° W.	4·1		4·1	0	84	·844	7·0	15			19·19	10·75	+ 8·44	60·17	51·35	+ 8·82	4·61	Chanda	Central Provinces, Central.	43
9	8		1	1	3	3	5	N. 9° W.	3·1		3·9	−21	87	·749	7·3	18	11·73	+6·27	14·47	10·45	+ 4·02	40·57	52·07	−11·50	4·08	Seoni.		
4	4	2	3	1	3	9	4	N. 58° W.	5·0		3·4	+47	93	·834	7·6	16	9·36	+6·64	12·26	8·77	+ 3·49	52·00	54·79	− 2·79	1·76	Jubbulpore.		
3	7	2		1	4	12	1	N. 61° W.	5·0	5·7	3·3	+73	89	·771	7·5	18	8·64	+9·36	7·46	8·19	− 0·73	42·20	44·22	− 2·02	1·48	Saugor.		
1 1	4	11	1	3	6			S. 68° E.	5·5	5·9	6·5	− 9	89	·859	6·0	11	8·36	+2·64	8·17	6·96	+ 1·21	34·56	40·74	− 6·18	2·05	Sutna	Central India	47
0	4		2	3	6	3	3	S. 54° W.	7·3	6·7	5·9	+14	89	·844	6·1	20	10·45	+9·55	19·22	8·46	+10·76	50·17	46·51	+ 3·66	5·41	Raipur	Central Provinces, East.	44
2	4	6	4	5	5	3	1	S. 37° E.	4·4	4·3	2·2	+95	85	·864	8·9	20			21·17	10·07	+11·10	69·71	60·45	+ 9·26	4·00	Sambalpur.		
2 1					7	4	16	N. 71° W.	10·6	10·2			86	·778	5·7	13			13·78	6·91	+ 6·87	44·58	32·34	+12·24	2·70	Indur	Hyderabad (North).	31
					2	21	7	N. 82° W.					87	·732	3·6	11			9·23	8·94	+ 0·29	31·58	34·38	− 2·80	2·00	Bidar.		
5	1				2	5	16	N. 47° W.	11·3	10·8			81	·732	7·8	12			7·02	6·44	+ 0·58	25·59	22·58	+ 3·01	1·53	Gulbarga	Hyderabad (South).	53
1					4	17	8	N. 81° W.	14·1	13·8			78	·734	6·3	12			6·60	5·54	+ 1·06	22·16	20·45	+ 1·71	1·85	Raichur.		
						15	15	N. 67° W.	7·2	7·0			82	·724	7·4	12			6·58	5·99	+ 0·59	26·43	25·91	+ 0·52	1·98	Hyderabad (Deccan).		
1					2	8	19	N. 60° W.	9·0		7·0	+29	82	·724	7·0	15			4·97	5·99	− 1·02	21·71	25·91	− 4·20	1·45	Secunderabad.		
4		6	10	1	1		1	S. 71° E.	8·3	7·1			84	·819	7·2	16			9·98			33·90			2·30	Hanumkonda.		
																			8·91	9·30	−0·39					X.—West Coast.		
	3		1	1	2	17	6	N. 80° W.	10·9		11·7	− 7	86	·899	6·7	15	14·18	+0·82	7·98	11·81	− 3·83	69·14	69·78	− 0·64	1·50	Bombay.	Konkan.	37
1			2			6	8	N. 63° W.	5·0	5·0	8·2	−39	88	·874	6·5	22	16·09	+5·91	13·08	13·18	− 0·10	96·96	104·60	− 7·64	2·65	Ratnagiri.		
4	1		1	3	2	4	8	N. 61° W.	8·0*				92	·908	6·9	14			6·01	6·55	− 0·54	92·84	81·26	+11·58	1·45	Mormugao.		
3	6	2			3	4	11	N. 31° W.					88	·881	8·5	14			6·81	8·57	− 1·76	88·89	92·68	−3·79	1·08	Goa.		
5	1					5	12	N. 42° W.	4·0				88	·827	4·4	19	16·09	+2·91	8·65	13·75	− 5·10	135·96	114·41	+21·55	1·29	Karwar.		
4	4					4	9	N. 30° W.	6·7*				86	·854	7·0	12	13·73	−1·73	6·33	9·38	− 3·05	63·50	72·61	− 9·11	1·21	Cochin	Malabar.	33
1		2	1	1		3	12	N. 48° W.	6·3	7·9			91	·834	8·0	16	10·13	+5·87	8·52	6·16	+ 2·36	97·27	84·55	+12·72	2·05	Calicut.		
1		1	2		1	1	3	N. 52° W.	1·7		2·4	−29	91	·851	8·2	23	16·60	+6·40	22·18	10·14	+12·04	139·33	102·39	+36·94	7·27	Mangalore.		
16						1	13	N. 22° W.	7·6				84	·807	7·7	2			0·61	4·13	− 3·52	22·01	29·07	− 7·06	0·14	Trivandrum.		
																			5·26	4·35	+1·00					XI.—South India.		
1	4				18	3	3	S. 65° W.	9·3	9·8			67	·785	2·9	0	1·80	−1·80	0·02	1·44	− 1·42	2·18	2·42	−0·24	0·02	Pamban	Madras (South)	57
7	1				1	8	13	N. 47° W.	8·5	8·2			61	·746	4·8	1	1·90	−0·90	0·61	1·01	− 0·40	0·90	2·36	− 1·46	0·57	Tinnevelly.		
10	2	1					11	N. 16° W.	2·0	2·0	3·4	−41	72	·791	5·2	6	6·09	−0·09	3·50	4·23	− 0·73	11·34	12·01	− 0·67	1·43	Madura.		
	2		2	1			4	N.	2·9	3·1			73	·718	5·1	6			2·12			6·98			0·57	Periyakulam		

* Mean of 29 days.

Table

Abstract of Observations taken at 8 A.M. at 219 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
34	Madras, South Central.	Salem	940	28·988	+·015	29·873	29·059	6th	28·894	12th	·165	78·3			73·1	+1·8						70·5	10h.	
		Coimbatore	1,348	28·569	+·025	29·871	28·647	6th	28·487	12th	·160	75·6	87·7	−1·8	71·2	+0·7	79·5	−0·6	16·5	92·9	30th	68·8	24th	24·1
35	Coorg	Mercara	3,781	26·234	+·022		26·290	6th	26·160	13th	·130	65·1	71·1	−1·3	63·0	+1·3	67·1	0	8·1	77·5	30th	61·2	13th & 14th.	16·3
36	Mysore	Chitaldroog	2,405	27·509	+·019	29·848	27·597	28th	27·427	13th	·170	72·5	84·1	+0·5	68·7	+1·2	76·4	+0·9	15·4	88·1	28th, 29th & 30th.	67·4	19th	20·7
		Bangalore	3,021	26·935	+·017	29·870	27·011	6th	26·849	12th	·162	69·7	81·5	−0·4	66·2	+1·2	73·9	+0·4	15·3	85·8	29th	63·3	19th & 25th.	22·5
		Hassan	3,091	26·878		29·881	26·957	6th	26·803	12th & 13th.	·154	71·6	81·0		64·9		73·0		16·1	86·9	29th	62·2	24th	24·7
		Mysore	2,518	27·439	+·030	29·886	27·516	6th	27·359	12th	·157	72·6	83·2	−1·1	66·8	+0·4	75·0	−0·4	16·4	88·6	30th	64·5	25th	24·1
56	Madras, East Coast, South.	Negapatam	31	29·869	+·022	29·829	29·955	28th	29·781	13th	·174	82·8*	93·0*	+0·6*	77·4*	+1·2*	85·3*	+0·9*	15·6	97·2*	22nd	73·4*	16th	23·8
		Cuddalore	12	29·867	+·025	29·868	29·957	27th	29·772	12th	·185	81·8	91·4	−0·3	76·3	+0·3	83·8	· 0	15·1	95·7	3rd	71·2	8th & 20th.	24·5
		Trichinopoly	255	29·640	+·015	29·828	29·725	27th	29·564	12th	·161	81·4	95·4	+0·1	76·3	+0·8	85·9	+0·5	19·1	99·6	28th	71·4	7th	28·2
		Madras	22	29·843	+·014	29·795	29·958	27th	29·737	12th	·221	82·5	93·9	+0·7	77·6	+0·5	85·8	+0·6	16·3	98·0	22nd	72·0	8th	26·0
		Vellore	707	29·181		29·830	29·280	28th	29·076	12th	·204	80·2	92·5		78·6†		85·5†		13·9	95·9	16th	73·2	29th	22·7
55	Madras, East Coast, Central.	Nellore	71	29·776	+·028	29·780	29·885	27th	29·630	12th	·255	83·1	96·1	+2·0	78·0	+0·4	87·1	+1·2	18·1	101·3	29th	73·6	5th	27·7
		Masulipatam	15	29·802	+·021	29·752	29·932	28th	29·694	12th	·238	82·3	91·0	−0·3	77·4	0	84·2	−0·2	13·6	97·1	1st & 10th.	72·6	15th	24·3
54	Madras, Central	Cuddapah	433	29·443	+·024	29·817	29·538	6th & 30th.	29·361	12th	·177	81·0	93·8	+1·3	76·7	+0·8	85·3	+1·1	17·1	98·2	4 days.	71·7	9th	26·5
		Kurnool	924	28·928	+·010	29·800	29·039	28th	28·842	23rd	·197	77·7	89·9	+0·6	74·0	+0·8	82·0	+0·7	15·9	95·7	1st	71·4	29th	24·3
		Bellary	1,475	28·403	+·018	29·828	28·491	28th	28·330	23rd	·161	77·9	90·2	−0·4	73·7	+0·9	82·0	+0·3	16·5	94·7	28th	71·2	7th	23·5
52	Madras, East Coast, North.	Cocanada	26	29·751	+·008	29·712	29·888	27th	29·661	23rd	·227	82·0	89·8	+1·2	78·4	+0·4	84·1	+0·8	11·4	97·1	9th	74·5	27th	22·6
		Waltair (Vizag.)	226	29·539	+·009	29·706	29·685	26th	29·376	19th	·309	82·2	87·8	−1·9	78·0	−0·1	82·9	−1·0	9·8	91·9	16th	73·4	24th	18·5
		Gopalpur	21	29·731	+·007	29·692	29·890	26th	29·538	19th	·352	81·8	87·1	−0·8	77·8	−0·5	82·5	−0·7	9·3	91·3	15th	75·1	1st, 2nd, & 25th.	16·2
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·703			25·880	30th	25·620	12th	·260	80·1	94·4		56·6		75·5		37·8	99·0	3rd	42·0	27th & 30th.	57·0
		Pishin											89·1		51·2		70·2		37·9	97·0	1st & 4th.	34·0	28th, 29th & 30th.	63·0
		Quetta	5,502	24·627	+·034		24·765	30th	24·549	1st	·216	68·8	89·0	+3·8	52·9	+2·5	71·0	+3·2	36·1	97·1	1st	33·8	29th	63·3
		Kalat										67·1	87·0		45·8		66·5		41·2	94·5	2nd	28·3	29th	66·2
		Chaman	4,311	25·698	?		25·851	30th	25·598	13th	·253	75·9	93·3	+1·4	64·2	+1·4	78·8	+1·4	29·1	101·2	1st & 3rd.	48·1	28th	53·1
30	Punjab	Leh	11,503	19·769	+·040		19·811	29th	19·662	27th	·149	55·3	74·2	+2·9	44·3	+2·8	59·3	+2·9	29·9	80·1	18th & 19th.	29·0	29th	51·1
		Srinagar	5,204	24·849	+·012		24·985	30th	24·747	11th	·238	64·2	81·3	+2·4	59·8	+6·4	70·6	+4·4	21·5	90·3	1st	44·2	29th & 30th.	46·1
		Gulmarg		21·910			21·968	24th	21·807	27th	·161	56·4	64·3		46·1		55·2		18·2	74·9	1st	31·2	28th & 29th.	43·7
		Skardu		22·823			23·001	30th	22·726	12th	·273	66·2	83·8		58·4		71·1		25·4	93·6	11th & 12th.	41·7	29th	51·9
		Dras		20·830			20·914	30th	20·725	27th	·189	57·7	76·1		43·7		59·9		32·4	84·5	2nd & 13th.	24·6	28th	59·9
		Gilgit		25·020			25·238	30th	24·908	12th	·330	78·6	93·7		69·3		81·5		24·4	103·8	10th	51·3	28th	52·5
		Chitral		24·553			24·700	26th & 30th.	24·425	13th	·275	70·9	92·0		62·8		77·4		29·2	100·2	9th	45·5	28th	54·7
		Killa Drosh										74·9	90·4		68·4		79·4		22·0	100·4	8th	52·1	26th	48·3
		Para Chinar	6,000									71·3	81·5		62·4		72·0		19·1	91·0	1st	49·9	29th	41·1
		Cherat		25·673	+·037		25·782	30th	25·587	11th	·195	69·7	82·1	−3·2	66·2	+0·6	74·2	−1·3	15·9	96·9	1st	54·6	30th	42·3
		Murree	6,333	23·872	+·053		23·942	30th	23·805	13th	·137	62·5	70·5	−3·3	58·9	+0·1	64·7	−1·6	11·6	78·7	1st	51·9	27th & 28th.	26·8
		Poo											76·8		54·8		65·8		22·0	85·7	10th	44·1	28th & 30th.	41·6
		Simla	7,224	23·151	+·054		23·223	23rd	23·095	8th	·128	59·5	64·6	−3·1	57·0	−0·1	60·8	−1·6	7·6	68·3	16th	49·3	28th	19·0
25	N.-W. Provinces	Chakrata	7,022	23·303	+·054		23·385	23rd	23·239	27th	·146	60·7	66·4	−2·6	57·0	−0·1	61·7	−1·4	9·4	72·7	16th	50·7	28th	22·0
		Mussooree	6,705	23·562	+·042		23·648	23rd	23·480	14th	·168	61·1	66·3	−1·7	57·9	+0·4	62·2	−0·7	8·4	71·2	17th	51·0	28th & 29th.	20·2
		Ranikhet	6,069	24·112	+·055		24·177	30th	24·060	9th	·117	63·8	71·0	−1·3	59·9	−0·1	65·5	−0·7	11·1	75·0	10th, 13th & 20th.	55·0	29th	20·0
		Muktesar		22·872			22·933	23rd	22·823	13th	·110	59·6	67·3		55·1		61·2		12·2	73·1	20th	49·8	29th	23·3

* Mean of 20 days.

† Mean of 24 days.

—continued.

India, Burma, etc., in September 1900—continued.

Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 30th September 1900.	Normal rainfall for period, 1st June to 30th September.	Variation from normal of period, 1st June to 30th September.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District
				1	16	8	1	S. 60° W.	2·5	2·3	3·7	−38	84	·824	6·3	16	6·91	+9·09	12·97	5·63	+ 7·34	23·31	20·93	+ 2·38	2·49	Salem	Madras, South Central.	34
				8	20	2		S. 36° W.	2·9		6·6	−56	86	·771	6·0	4	2·18	+1·82	1·75	1·13	+ 0·62	7·31	4·98	+ 2·33	0·50	Coimbatore.		
2						11	13	N. 61° W.	6·4	5·9	7·9	−25	96	·605	9·1	26	17·10	+8·90	14·76	10·98	+ 3·78	132·77	105·44	+27·33	1·27	Mercara	Coorg.	35
					6	17	7	N. 88° W.	10·8	9·4			82	·659	9·3	6			1·87	3·56	− 1·69	9·11	12·42	− 3·31	0·31	Chitaldroog.	Mysore.	36
					8	17	5	S. 86° W.	9·1	7·9	6·7	+18	87	·641	9·1	11	8·36	+2·64	8·34	4·72	+ 3·62	18·23	18·56	− 0·33	2·61	Bangalore.		
1					1	17	11	N. 73° W.	4·0	3·5			82	·634	8·6	9			3·66	2·72	+ 0·94	24·64	14·71	+ 9·93	1·21	Hassan.		
					16	13	1	S. 67° W.	9·1	9·8			82	·647	8·3	14			7·52	3·87	+ 3·65	13·02	11·46	+ 1·56	1·82	Mysore.		
					8	20	1	S. 46° W.	8·2*	7·2*	5·2	+ 38	74*	·833*	4·2	8	6·36	+1·64	3·42	3·04	+ 0·38	13·62	10·89	+ 2·73	0·81	Negapatam	Madras, East Coast, South.	56
			1	6	13	9	1	S. 50° W.	2·0	2·5			81	·879	4·7	12	6·40	+5·60	12·29	5·34	+ 6·95	19·15	14·66	+ 4·49	2·66	Cuddalore.		
					6	19	2	S. 83° W.	5·9		7·1	−17	74	·793	4·9	5	4·91	+0·09	4·71	3·21	+ 1·50	11·16	11·00	+ 0·16	1·84	Trichinopoly.		
1				2	10	14	3	S. 75° W.	6·5‡		6·5	0	76	·841	7·2	6	6·45	−0·45	6·03	4·69	+ 1·34	10·82	15·23	− 4·35	2·43	Madras.		
					23			S. 45° W.	2·0				72	·726	6·0	9			6·66			20·98			2·05	Vellore.		
			1	3	1	12	12	N. 79° W.	7·4				73	·821	7·9	8	5·30	+2·70	4·78	3·44	+ 1·34	9·36	10·84	− 1·48	2·75	Nellore	Madras, East Coast, Central.	55
				2	2	12	13	N. 76° W.	8·0		6·4	+25	85	·932	7·4	13	8·80	+4·20	7·72	5·70	+ 2·02	22·04	23·95	− 1·91	1·48	Masulipatam.		
					6	16	8	N. 87° W.					75	·782	8·3	11	6·70	+4·40	8·52	5·48	+ 3·04	14·28	19·87	− 5·59	3·24	Cuddapah.	Madras, Central.	54
3					1	17	7	N. 72° W.					78	·737	7·9	11	7·83	+3·17	5·44	6·51	− 1·10	22·19	21·25	+ 0·94	2·28	Kurnool.		
					1	17	11	N. 74° W.	10·9	11·6	9·3	+25	62	·594	7·9	8	6·27	+1·73	4·49	4·09	+ 0·40	9·78	10·50	− 0·72	1·22	Bellary.		
3	1			3	9	7	4	S. 80° W.	7·0	6·4			83	·906	7·3	11	9·10	+1·90	4·78	5·73	− 0·95	12·71	23·48	−10·77	1·58	Cocanada	Madras, East Coast, North.	52
	1	4			12	8	1	S. 61° W.	12·5				80	·875	6·5	9			2·64	8·27	− 5·63	14·65	22·74	− 8·09	0·72	Waltair (Vizag.).		
6			1	8	10	1	3	S. 51° W.	15·6	15·3	7·2	+113	89	·957	3·8	13	9·33	+3·67	7·11	7·43	− 0·32	28·24	29·63	− 1·39	1·45	Gopalpur.		
																										XII.—Hill Stations.		
	1		11		3	1	10	S. 45° W.	3·8				46	·491	0·7	2			1·48	0·54	+ 0·94	4·15	6·44	− 1·99	0·85	Shahrig	Baluchistan	48
																0			0	0·01	− 0·01	0	0·49	− 0·49	0	Pishin.		
								Calm.	1·0	1·1	3·5	−69	52	·392	0	0	0·55	−0·55	0	0·16	− 0·16	1·07	2·19	− 1·12	0	Quetta.		
11		6		6		7		N. 11° W.					46	·326		0			0	0·05	− 0·05	0·44	1·30	− 0·86	0	Kalat.		
		9	6	5	7	2	1	S. 23° E.	6·6	7·0			78	·716	0	0			0	0	0	0	0·92	− 0·42	0	Chaman.		
	12	7	1	5	2	2	1	N. 81° E.	2·5		1·7	+47	48	·221	2·7	0			0·04	0·26	− 0·22	1·79	1·55	+ 0·24	0·02	Leh	Punjab.	30
1		4	11	5		1	3	S. 42° E.	3·1	3·3			89	·557	4·7	6			3·11	2·86	+ 0·25	11·48	22·03	−10·55	1·46	Srinagar.		
1	6	2	1	1	2		1	N. 59° E.	2·8				89	·415	4·6	5			2·42			13·80			0·85	Gulmarg.		
4	3	3		1	5	5	2	N 59° W.	6·3	7·5			62	·400	2·6	2			0·64	0·03	+ 0·61	2·70	2·15	+ 0·55	0·49	Skardu.		
	1	1	1	1	3	3	1	S. 56° W.	6·9	7·1			56	·271	2·8	1			0·60	0·63	− 0·03	4·24			0·50	Dras.		
					1	2		S. 72° W.	1·9	1·9			40	·389	2·8	1			0·14	0·19	− 0·05	0·63	1·65	− 1·02	0·14	Gilgit.		
3				2				N.	7·6	7·4			64	·486	0	0			0·07			1·95			0·05	Chitral.		
		9				6		E.					53	·471	2·9	4			1·98			5·11			0·70	Killa Drosh.		
2	5	8	8	4	1	1	1	S. 75° E.	3·1				61	·471	3·9	4			1·86			9·27			1·20	Para Chinar.		
6			1	17		2	2	S. 15° W.	3·0	7·4			83	·605	5·7	6			2·41	2·61	− 0·20	11·35	11·14	+ 0·21	0·92	Cherat.		
1			4	1	1		1	S. 27° E.	3·8	4·7	5·4	−13	82	·476	4·0	13	6·55	+6·45	14·21	6·16	+ 8·05	41·60	34·56	+ 7·04	3·30	Murree.		
2	1				2	1	1	N. 45° W.							4·4	2			0·37	0·45	− 0·08	1·60	2·31	− 0·71	0·14	Poo.		
2	6	2	5	5	2			S. 66° E.	3·0		1·7	+76	86	·442	6·9	14	8·36	+5·64	4·91	6·56	− 1·65	41·84	48·88	− 7·04	0·31	Simla.		
4	1		2	3	3			S	7·5		4·7	+60	89	·473	2·4	16			12·56	6·92	+ 5·64	56·05	51·84	+ 4·21	3·15	Chakrata	N.-W. Provinces	25
3	2	7	6	2		1	3	N. 88° E.					88	·480	6·7	17	10·09	+6·91	15·79	10·34	+ 5·45	74·88	79·43	− 4·55	3·55	Mussooree.		
	3	2			5	2	5	N. 68° W.	2·2	2·5	1·9	+32	86	·511	6·1	12	7·73	+4·27	6·45	8·02	− 1·57	30·86	41·15	−10·29	1·58	Ranikhet.		
1		3	16	1			8	S. 56° E.	7·2	6·6			87	·445	6·8	13			4·52			29·53			1·14	Muktesar.		

‡ Mean of 9 days.

Tabl

Abstract of Observations taken at 8 A.M. at 219 Statin

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 actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity 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.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
13	Bengal	Yatung	10,180?										59·7		45·2		52·5		14·5	66·1	21st	35·9	24th	30·2
		Darjeeling	7,409	23·057	+·057		23·165	24th	22·967	9th	·198	59·2	65·4	+0·6	54·6	−0·5	60·0	+0·1	10·8	79·7	4th	506	23rd	29·1
		Gantok	5,660	24·485			24·565	26th	24·406	15th	·159	63·4	73·0		44·6		58·8		28·4	79·2	16th	35·0	5th	44·2
	Central India	Mount Abu	3,945	25·983	+·001		26·135	30th	25·898	13th	·237	67·4	72·0	−3·4	65·3	+0·5	68·7	−1·5	6·7	76·1	21st & 28th.	62·4	1st	13·7
		Pachmarhi	3,528	26·337	−·016		26·522	30th	26·219	25th	·303	68·6	74·2	−2·8	66·4	+0·2	70·3	−1·3	7·8	78·2	5th	57·2	30th	21·0
	South India	Wellington	6,200	24·249	+·021		24·312	28th	24·179	12th & 13th.	·133	63·5	71·6	+0·6	57·0	+1·3	64·3	+1·0	14·6	74·7	22nd	46·2	25th	28·5
		Kodai Kanal	7,688	22·836			22·897	28th	22·750	12th	·147	57·0	63·4		52·5		58·0		10·9	67·7	26th	50·1	24th	17·0
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·891	+·031	29·829	29·956	28th	29·815	12th	·141	81·2	91·3	−2·3?	77·2	+1·0	84·3	?	14·1	95·0	23rd	74·5	28th	20·5
		Colombo	40	29·935	+·019	29·901	29·990	19th	29·866	9th	·124	80·6	86·9	+1·4	76·5	−0·3	81·7	+0·6	10·4	89·5	21st. 26th & 29th	73·5	1st	16·0
	Persia	Meshed	3,104									65·7			54·6							41·9	29th	
		Teheran		25·643* / 25·324‖			26·150 / 25·500	25th, 26th & 30th / 26th	25·750 / 25·180	14th, 15th & 16th / 16th, 5th	·400 / ·320	81·6	91·6		56·3		74·0		35·3	101·1	9th	45·0	26th	56·1
		Ispahan		24·312*			24·500	26th & 28th	24·150		·350	72·0	93·8		58·0		75·9		35·8	100·3	4th	49·6	25th & 27th.	50·7
		Bushire	14	29·726	+·001	29·699	29·940	30th	29·598	13th	·342	85·9	93·0	−1·2	79·1	+0·3	86·1	−0·5	13·9	96·5	4th	71·1	27th	25·4
		Jask		29·773	+·042		29·990	30th	29·633	9th	·357	86·6	93·0	−0·5	82·2	+1·2	87·6	+0·4	10·8	98·3	9th & 28th.	77·2	28th & 30th.	21·1
		Muscat	20	29·768		29·736	29·942	30th	29·651	13th	·291	83·7	85·0		81·9		83·5		3·1	88·1	10th	78·1	6th	10·0
	Arabia	Baghdad	220	29·672	−·001	29·865	29·808	25th	29·517	2nd	·291	80·5	105·1	+4·3	71·3	+0·2	88·2		33·8	112·9	13th	57·5	18th	55·4
		Busrah		29·766			29·948	29th	29·504	9th	·364		99·8		77·3		88·6		22·5	105·7	9th	64·4	18th	41·3
		Aden	94	29·736	−·012	29·761	29·871	30th	29·624	14th	·247	85·8	93·3	−0·3	82·7	+0·6	88·0	+0·2	10·6	97·3	5th	78·3	15th	19·0
		Perim	200	29·637		29·769	29·766	30th	29·543	14th	·223	88·8	95·4		84·6		90·0		10·8	100·5	9th	80·2	16th	20·3
	Afghanistan	Kabul										63·4‡	90·8‡		54·7‡		72·8‡		36·1‡	98·1	2nd	36·4	28th	61·7
	Central Asia	Kashgar		25·628†			25·949	30th	25·427	22nd	·522	67·7	85·1		58·8		72·0		26·3	94·3	22nd.	40·6	29th	53·7
	Arabian Sea Islands.	Amini Devi	13	29·933		29·874	30·019	21st	29·820	8th	·199										29th			
		Minicoy	7	29·969		29·901	30·020	20th	29·927	12th	·093	79·4	84·2							88·3				
	Africa	Zanzibar	73	30·082	+·015	30·082	30·119	9th	30·022	29th	·097	76·2	82·6		74·2		78·4		8·4	85·0	18th	72·4	25th	12·0

* Aneriod uncorrected.

† Aneroid corrected.

‡ Mean of 29 days.

NOTE.—When a query is inserted against any reading or in the variation returns for any station, the

I—*concluded.*

in India, Burma, etc., in September 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st June to 30th September 1900.	Normal rainfall for period, 1st June to 30th September.	Variation from normal of period, 1st June to 30th September.	Heaviest rainfall during month.	Station.	Meteorological Provinces or District.	Number of District.
																	10			4·26	6·42	−2·16	38·08			0·83	Yatung	Bengal.	13
6		6	9	4	1	2	2		S 86° E	3·4	2·8	3·0	− 7	90	·457	5·8§	16	18·04	−2·04	15·09	17·31	−2·22	96·16	99·06	−2·90	7·39	Darjeeling.		
30									Calm	1·8	2·1			94	·552	5·4	20			13·95	20·93	−6·98	82·78	90·01	−7·23	2·50	Gantok.		
	2	4		1		11	10	2	S 82° W	7·8	8·1	7·3	+11	90	·594	7·2	18	7·40	+10·60	20·37	10·71	+9·66	48·25	63·65	−15·40	7·86	Mount Abu	Central India.	
	4	4	1				5	12	N 32° W	11·4	11·7	5·6	+109	93	·659	8·8	27	12·55	+14·45	35·29	15·97	+19·32	89·25	72·20	−17·05	4·27	Pachmarhi.		
15	3			2	1	3	1	5	N 69° W	2·9		3·5	−17	75	·443	6·4	12	9·22	+2·78	5·07	4·49	+0·58	15·77	16·16	−0·39	1·12	Wellington	South India.	
1				2	1	1	2	23	N 54° W	11·8				84	·392	5·2	20			10·05			21·59			2·66	Kodai Kanal		
																											XIII.—Extra India.		
						30			S 45° W	14·5				83	·890	1·7	3			2·41	5·81	−3·40	8·93	15·59	−6·66	1·63	Trincomalee	Ceylon.	
				2	3	16	8	1	S 51° W	9·5		8·7	+ 9	85	·895	6·5	11			6·92	5·29	+1·63	25·45	22·27	+3·18	3·42	Colombo.		
														67	·435	0	0			0	0·10	−0·10	0·49	0·37	+0·12	0	Meshed	Persia.	
5	1	9		3	3	6	2	1	S 63° E	0·8	1·0			25	·273	00·8	0			0	0·02	−0·02	0·02	0·63	−0·61	0	Teheran.		
										0·5	0·6			57	·448	0·5	0			0	0	0	0	0·10	−0·10	0	Isphahan.		
7	3	4	3	7	1			5	N 65° E	5·8	6·9	7·7	−10	66	·829	1·1	0			0	0	0	0	0	0	0	Bushire.		
3		1	19	7					S 80° E	13·2	15·3			72	·922	2·0	0			0	0	0	0	0·15	−0·15	0	Jask.		
2	2	3	2	8				3	N 83° E	3·8	3·9			81	·940	1·5	0			0	0	0	0	0·08	−0·08	0	Muscat		
2	12	2	1					3	N 1° E	2·2	2·9			47	·498	0·8	0			0	0	0	0·02	0·14	−0·12	0	Baghdad.	Arabia.	
	24				3				N								0			0						0	Busrah.		
3	1	7	4	3	3	5	2	2	S 72° E	12·2	12·0	8·5	+41	77	·949	4·3	0			0	0·21	−0·21	0	0·43	−0·43	0	Aden.		
.	1	1	10	2		5	7	3	S 45° W	13·3	12·8			77	1·055	2·3	0			0	0	0	1·90	0·40	+1·50	0	Perim.		
1	1	1	2				1	4	N 11° W					54	·333	0·2				0	0	0	0·31	0·93	−0·62	0	Kabul	Afghanistan.	
:	4		5				1	2	N 31° E	1·9	1·7			53	·365	2·3	0			0	0·13	−0·13	2·21	1·59	+0·62	0	Kashgar	Central Asia.	
	1					2	15	12	N 72° W							6·3	15			8·54			36·83			2·11	Amini Devi.	Arabian Sea Islands.	
	2					1	11	16	N 61° W	7·2	7·7			86	·858	5·9	18			13·38			42·92			2·32	Minicoy		
		1		6	16	6	1		S 1° W	6·0¶	5·7¶			84	·756	7·0	6			3·53	1·56	+1·97	11·18	6·75	+4·43	1·68	Zanzibar	Africa.	

† For that station are not utilized in calculating the provincial variations. § Mean of 21 days. ‖ Mountain barometer uncorrected. ¶ Mean of 28 days.

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 daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
Burma Coast and Bay Islands.	Port Blair		29·861	29·768	·093	29·817	+·037	29·808	85·1	77·3‡	7·8	89·6	75·3	14·	82·8	82·4	80·2‡	+0·7	75·5	79·1	78·2	77·6
	Rangoon		·850	·737	·113	·795	+·014	·772	86·4	76·2	10·2	91·4	72·8	18·6	82·3	82·7	79·7	+1·0	74·9	78·8	78·1	77·3
	Diamond Island		·858	·754	·104	·808	+·025	·784	85·0	78·4	6·6	88·8	75·2	13·6	82·7	82·6	80·7	+1·9	75·5	78·8	78·1	77·5
	Cocos Island†	111	·814	·724	·090	·771	?	·815	85·2	77·6	7·6	89·4	72·9	16·5	82·8	82·6	80·4	+1·1	75·0	78·8	78·2	77·3
	Akyab		·842	·734	·108	·792	+·031	·755	86·8	74·7	12·1	92·7	70·3	22·4	82·7	83·9	79·9	−1·5	?	79·3	79·9	?
Bengal and Orissa.	Chittagong		·755	·643	·112	·703	+·026	·738	87·8	76·2	11·6	92·8	73·1	19·7	84·5	85·0	81·1	+0·5	75·2	79·0	79·5	77·9
	Calcutta (Alipore)		·776	·666	·110	·723	+·038	·690	87·1	77·6	9·5	94·4	73·0	21·4	83·3	84·6	82·2	−0·3	76·6	79·3	79·3	78·4
	Saugor Island		·754	·650	·104	·704	+·024	·673	87·4	78·9	8·5	92·3	75·0	17·3	83·8	84·2†	82·0†	−0·6	77·2	80·3	80·2†	79·2
	False Point		·744	·643	·101	·696	0	·658	86·6	78·2	8·4	93·5	74·1	19·4	84·5	84·7	81·6	−0·2	77·0	80·0	79·6	78·9
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·768	27·671	·097	27·724	+·014	·671	81·6	72·2	9·4	89·4	68·3	21·1	77·3	77·8	75·7	−1·3	70·9	72·9	72·8	72·2
	Darbhanga		29·635	29·523	·112	29·584	+·043	·703	87·1	77·2	9·9	94·8	69·0	25·8	84·1	84·8	81·1	−1·7	75·2	79·1	79·3	77·9
	Allahabad		·449	·337	·112	·393	+·017	·658	88·3	76·9	11·4	94·9	70·3	24·6	84·0	85·6	81·4	−1·8	74·6	79·0	79·2	77·6
Upper Sub-Himalayas.	Dehra Dun		27·600	27·514	·086	27·549	+·047	·734	81·8	69·5	12·3	87·0	61·4	25·6	76·7	77·4	74·3	−2·6	67·9	72·2	72·8	71·0
	Roorkee		28·910	28·808	·102	28·852	+·058	·703	86·5	73·4	13·1	92·1	64·6	27·5	81·8	83·3	78·8	−3·0	71·5	76·0	76·2	74·6
	Meerut		29·045	·946	·099	·987	+·047	·688	87·9	74·8	13·1	93·6	65·8	27·8	81·6	83·3	80·1	−2·7	73·7	77·0	77·1	75·9
	Lahore		·080	·978	·102	29·022	+·056	·689	89·7	76·4	13·3	98·4	66·8	31·6	82·8	88·8	82·6	−1·3	73·8	77·0	79·3	76·7
	Lahore (new shed)								91·3	75·5	15·8	101·5	65·1	36·4	83·5	89·5	82·7		73·7	77·3	79·1	76·7
	Ludhiana		28·966	·870	·096	28·912	+·042	·690	87·5	75·4	12·1	94·1	66·3	27·8	81·8	85·4	80·6	−2·7	74·4	76·4	77·4	76·1
Indus Valley and N.-W. Rajputana.	Peshawar		·682	·559	·123	·615	+·033	·691	93·9	74·3	19·6	104·0	58·0	46·0	85·2	91·7	83·4	+1·4	70·7	76·0	76·9	74·5
	Jacobabad		29·546	29·425	·121	29·475	+·015	·617	105·3	80·5	24·8	109·5	65·9	43·6	94·2	103·2	92·1	+3·4	74·8	79·9	82·3	79·0
	Kurrachee		·775	·686	·089	·738	+·019	·712	91·9	79·7	12·2	101·5	74·2	27·3	87·3	87·5	84·5	+2·9	75·4¶	78·9¶	79·6¶	77·9
E. Rajputana, C. India and Gujarat.	Jaipur		28·373	28·275	·098	28·324	+·031	·698	88·8	74·8	14·0	92·4	68·0	24·4	83·2	85·5	80·4	−1·5	72·8	76·6	76·6	75·5
	Udaipur		27·895	27·806	·089	27·851	.	·722	83·9	72·1	11·8	87·0	64·3	22·7	79·9	80·0	77·0		69·9	73·4	73·6	72·3
	Deesa		29·352	29·244	·108	29·297	+·016	·713	90·1	75·9	14·2	95·5	69·0	26·5	84·2	88·1	82·0	+0·1	73·8	77·2	76·9	76·0
	Jamnagar		·774	·681	·093	·727		·734	90·2	75·6	14·6	93·6	68·6	25·0	86·1	86·7	82·0		72·7	77·4	77·4	75·8
Deccan.	Belgaum		27·365	27·275	·090	27·322	+·022	·781	79·6	66·1	13·5	86·3	64·7	21·6	74·9	74·9	71·2	+0·9	65·5	70·0	70·0	68·5
	Sholapur		28·272	28·134	·138	28·214	+·009	·732	90·3	72·1	18·2	95·4	70·4	25·0	82·0	86·7	79·6	+2·0	69·2	71·6	72·5	71·1
	Poona		·037	27·954	·083	·000	+·026	·777	83·3	69·0	14·3	89·5	65·3	24·2	78·7	80·1	74·5	+0·1	68·4	71·3	71·6	70·4
	Akola		·881	28·763	·118	·823	+·012	·702	87·4	73·1	14·3	91·9	70·0	21·9	81·7	85·7	79·8	0	72·1§	74·9	75·8	74·3
	Buldana	2,132	27·703	27·600	·103	27·652	+·009	·715	82·5	69·6	12·9	88·4	65·6	22·8	76·4	80·3	75·5	0	67·8	71·1	72·0	70·3
	Khandwa		28·760	28·646	·114	28·704	+·006	·703	85·5†	73·6	11·9	89·2	66·1	23·1	79·6	84·3	78·7†	−0·3	71·9	75·1	76·3	74·4
	Nagpur		·732	·615	·117	·675	−·003	·649	87·3	74·7	12·6	93·1	71·4	21·7	81·2	83·3	80·0	−0·3	73·2	76·1	76·6	75·3
	Do. (Sanitary Commr.'s Office)		·747	·629	·118	·689		·654	87·8	74·5	13·3	92·9	71·4	21·5	82·4	84·1	80·3		72·9	76·9	77·3	75·7
	Hyderabad (Deccan)		·145	·032	·113	·094	+·013	·720	84·2	72·3	11·9	90·2	70·0	20·2	78·9	81·6	77·6	0	70·5	73·1	74·4	72·7
West Coast.	Bombay		29·860	29·774	·086	29·814	+·028	·791	85·1	77·5	7·6	87·4	75·2	12·2	82·0	82·4	80·7	+1·0	74·7	77·8	77·9	[illegible]
	Karwar		·900	·816	·084	·855	+·035	·831	83·5	75·0	8·5	85·0	73·5	11·5	81·0	81·3	78·7	+1·0	73·3	76·2	76·3	[illegible]

† Mean of 29 days. ‡ Mean of 28 days. § Mean of 22 days.

65 Stations in India, Burma, etc., for September 1900.

Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of Winds from. Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province
																								%	%						
·952	·914	·909	+·016	92‡	84	82	86	− 1	7·8	8·1	8·0	+0·7	1					1	24	30	4	S 73° W	S 52° W	87	74	252	228			Port Blair	Burma Coast and Bay Islands.
·941	·903	·899	+·006	94	85	82	87	− 2	7·3	7·4	7·4	−0·8		3	8	5	6	16	13	5	3	S 4° W	S 23° W	32	49	70	89			Rangoon	
·937	·909	·897	+·026	87	84	82	84	− 3	7·7	7·7	7·7	+0·2	3	3	3	6	3	7	14	10	11	S 71° W	S 45° W	30	55	191*	182			Diamond Island	
·936	·911	·895	+·004	88	83	82	84	− 2	7·9	8·4	8·2	+0·8		8	1			15	19	2	13	S 66° W	S 44° W	45	74	168	447	13·42	3·56	Cocos Island	
·960	·974	P	P	P	86	83	P	P	6·5	6·3	6·4	−0·8			1	15	15	17	8	3	1	S 28° E	S 8° E	60	42	64	74			Akyab	
·919	·936	·907	−·009	95	78	78	84	− 2	7·3	7·0	7·2	+0·3		1	8	5	12	7	14	4	9	S 5° W	S 22° E	20	37	114*	102			Chittagong	Bengal and Orissa.
·952	·934	·930	−·013	96	84	79	86	0	8·0	8·3	8·2	+0·9		2	3	14	15	14	7	1	4	S 38° E	S 23° E	48	42	121	98			Calcutta (Alipore)	
·986	·980	·960	−·016	92	85	84	87	+ 1	7·5	7·5	7·5	+0·4		4	2	6	10	23	10	1	4	S 7° E	S 2° W	48	49	324	257			Saugor Island	
·964	·945	·942	+·013	94	81	80	85	+ 1	8·2	7·9	8·1	+1·1		1	5	3	13	22	8	4	4	S 6° E	S 20° W	50	37	261*	205			False Point	
·754	·745	·748	−·006	94	81	79	85	+ 1	9·8	9·5	9·7	+1·7	2	3	7	24	7	6	3	4	4	S 85° E	S 52° E	42	10	232*	178			Hazaribagh	Gangetic Plain and Chota Nagpur.
·933	·932	·906	−·029	91	80	78	83	+ 1	6·4	5·7	6·1	+0·8	11		1	25	22		1			S 69° E	S 81° E	72	49	77	96			Darbhanga	
·930	·916	·893	+·008	89	80	75	82	+ 3	7·7	6·6	7·2	+1·9	4	4	12	23	3	1	2	5	6	N 62° E	N 8° W	43	13	270*	128			Allahabad	
·739	·758	·721	+·023	92	81	80	84	+ 6	6·9	7·9	7·4	+2·6	17				8	24	8	3		S 5° W	N 75° W	59	20	15	25			Dehra Dun	Upper Sub-Himalayas.
·821	·813	·794	+·026	90	76	72	79	+ 7	5·5	6·3	5·9	+2·1	35	7		1	9	3		1	4	N 80° E	S 14° W	7	7	27	48			Roorkee	
·873	·859	·853	+·091	95	80	75	83	+13	6·2	5·7	6·0	+2·3	41		4	3	8			3	1	S 73° E	N 49° W	13	19	22*	46			Meerut	
·859	·876	·848	+·134	88	77	65	77	+20	4·9	3·1	4·0	+2·5	9	6	1	7	16	3	1	12	5	S 30° E	N 55° E	10	7	67	50			Lahore	
·862	·861	·845		91	75	63	77																							Lahore (new shed).	
·847	·845	·845	+·090	95	78	70	81	+15	5·6	5·6	5·6	+2·6	12	6	6	3	12	8		13		S 23° E	N 44° W	12	14	48*	31			Ludhiana	
·797	·753	·757	+·165	83	65	51	66	+12	3·0	2·5	2·8	+1·1	25	12	10	2	1	1	1	2	6	N 7° E	N 39° E	35	51	43*	73			Peshawar	Indus Valley and N.-W. Rajputana.
·835	·829	·820	+·130	75	52	39	56	+ 4	0·6	1·0	0·8	+0·2	34			6	9	10			1	S 70° E	S 32° E	21	45	43*	72			Jacobabad	
·884¶	·909¶	·873	+·032	81¶	70¶	70¶	74	− 3	3·8	2·9	3·4	−0·4						2	36	20	2	S 61° W	S 67° W	89	87	336*	356			Kurrachee	
·836	·806	·809	+·126	90	74	66	77	+13	6·6	7·3	7·0	+3·0	4	5	17	7		4	3	12	8	N 3° W	N 39° W	28	43	75	108			Jaipur	E. Rajputana, C. India and Gujarat.
·750	·752	·736		90	73	74	79		6·7	7·0	6·9		14	2	5	3	2	1	6	16	11	N 72° W		35		28				Udaipur	
·840	·779	·810	+·087	90	72	60	74	+ 8	5·8	5·5	5·7	+0·9		5	7	1		3	7	23	12	N 71° W	S 69° W	56	53	169‡	200			Deesa	
·825	·815	·803		86	66	64	72		3·5	3·1	3·3		1					1	26	27	5	S 72° W		86		318*				Jamnagar	
·672	·676	·657	+·016	97	78	79	84	− 1	7·7	7·6	7·7	+0·2		1	1			1	3	32	21	N 74° W	S 78° W	85	75	116‡	385			Belgaum	Deccan.
·644	·623	·648	−·014	86	59	50	65	− 5	7·9	8·7	8·3	+0·3	1	1	1	1			7	13	36	N 62° W	N 69° W	79	67	202*	215			Sholapur	
·650	·671	·680	+·014	97	69	65	77	+ 1	7·5	7·7	7·6	−0·1					1		15	39	5	S 81° W	W	88	77	356*	259			Poona	
·778	·761	·768	+·029	94§	72	63	76	+ 2	7·1	6·7	6·9	+0·3		8					1	23	28	N 58° W	N 59° W	85	68	233*	155			Akola	
·696	·683	·680	0	91	77	67	78	0	9·1	7·7	8·4	+1·8		3						29	28	N 65° W	N 47° W	90	68	259*	200	6·89	1·46	Buldana	
·811	·805	·796	+·055	92	81	69	81	+ 6	7·2	6·9	7·1	+1·6		2	6					23	29	N 56° W	N 66° W	80	67	215	154			Khandwa	
·841	·832	·824	+·057	93	79	74	82	+ 7	8·0	8·4	8·2	+0·9	16	8	1				5	16	14	N 62° W	N 52° W	53	37	160	147			Nagpur	
·861	·857	·836		92	77	74	81		7·2	7·5	7·4		1		14		6		16	1	22	N 54° W		28		42*				Do. (Sanitary Commr.'s Office)	
·746	·763	·745	+·010	91	75	71	79	+ 1	7·3	7·4	7·4	+1·1	2	1		1			1	27	28	N 67° W	N 71° W	84	61	165*	150			Hyderabad (Deccan).	
·904	·900	·876	+·011	87	82	81	83	− 2	6·7	6·5	6·6	−0·8		2	1	2	1	1	3	39	11	N 82° W	N 84° W	77	52	263	267			Bombay	West Coast.
·840	·841	·827	+·010	92	79	79	83	− 3	4·7	6·2	5·5	−0·2	1						1	29	29	N 68° W	S 80° W	90	78	96	58			Karwar	

‡ Mean of 26 days. ¶ Mean of 27 days. * Corrected.

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Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Stati

Meteorological Province.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure. Mean of 10 hours.	Pressure. Mean of 16 hours.	Pressure. Mean daily range.	Pressure. Mean daily pressure.	Pressure. Variation from normal.	Pressure. Mean reduced to S. L. and for gravity, 45° Lat.	Temperature of Air. Mean maximum.	Temperature of Air. Mean minimum.	Temperature of Air. Mean daily range.	Temperature of Air. Highest maximum.	Temperature of Air. Lowest minimum.	Temperature of Air. Absolute range.	Temperature of Air. Mean 10 hours.	Temperature of Air. Mean 16 hours.	Temperature of Air. Mean daily.	Temperature of Air. Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Temperature, Wet-bulb. Mean 10 hours.	Temperature, Wet-bulb. Mean 16 hours.	
South India.	Periyakulam		28·961	28·843	·118	28·902			93·0	72·1	20·9	100·5	66·1	34·4	85·3	84·8	80·5		70·2	73·7	74·0	7
	Salem		·983	·847	·136	·928	+·011	29·798	?	73·0	?	?	70·7	?	82·8	88·0	?	?	71·7	75·2	77·1	7
	Chitaldroog		27·514	27·398	·116	27·465	+·025	·779	84·4	68·7	15·7	90·4	67·3	23·1	76·8	81·6	75·8	+1·3	66·7	69·8	71·1	6
	Bangalore		26·938	26·824	·114	26·892	+·017	·793	81·4	66·2	15·2	85·8	63·2	22·6	74·3	79·2	73·3	+1·0	65·5	68·8	70·4	6
	Hassan		·884	·789	·095	·848	+·024	·821	81·2	64·9	16·3	86·9	62·2	24·7	76·0	75·2	71·6	+0·9	64·2	69·1	69·0	6
	Mysore		27·439	27·325	·114	27·382	+·027	·808	83·2	66·8	16·4	88·6	64·4	24·2	77·1	79·2	74·0	−0·6	66·7§	69·7	70·7	6
	Madras		29·841	29·722	·126	29·787	+·016	·738	93·6	77·4	16·2	98·1	72·3	25·8	87·0	87·2	83·7	−0·1		77·5	78·7	7
	Bellary		28·411	28·276	·135	28·353	+·013	·755	90·1	73·8	16·3	94·6	71·2	23·4	82·5	87·7	80·7	+0·6	67·8	70·2	71·9	7
	Waltair		29·548	29·442	·106	29·495		·660	87·9	78·0	9·9	91·8	73·3	18·5	84·0	84·7	82·2		73·1	77·7¶	78·2¶	7
Hill Station, Baluchistan.	Quetta		24·635†	24·546	·089	24·583†	+·027		88·4	53·0	35·4	95·7	33·9	61·8	78·5	85·9	70·1	+3·5	?	58·9	58·7	
Hill Stations, Northern India.	Leh		19·763	19·646	·117	19·713	+·027		73·6	44·2	29·4	80·1	29·0	51·1	63·6	70·0	58·5	+4·7	38·9	48·6	50·6	4
	Srinagar		24·858	24·749	·109	24·796	+·009		80·8	59·8	21·0	89·5	44·2	45·3	70·8	78·6	69·7	+4·0	58·3	67·9	72·5	6
	Kailang	10,087	20·970	20·872	·098	20·929	?		73·6	47·4	26·2	79·5	32·5	47·0	63·4	64·8	57·4	+3·7	45·4	53·8	51·6	5
	Simla (Ridge)		23·169	23·107	·062	23·130	+·050		64·5	56·9	7·6	68·3	49·3	19·0	61·3	61·8	59·9	−1·6	54·8	58·7	59·7	5
	Chakrata		·321	·256	·065	·281	+·035		66·4	57·0	9·4	72·7	50·7	22·0	63·0	61·9	60·4	−1·3	56·1	60·3	60·1	58
	Ranikhet		24·129	24·050	·079	24·075	+·045		71·1	59·9	11·2	75·0	55·0	20·0	67·0	67·4	64·4	−1·1	58·5	62·8	63·5	61
	Muktesar		22·892	22·820	·072	22·857			67·2	55·1	12·1	73·1	49·8	23·3	62·1	63·0	60·1		53·5	58·9	59·8	57
	Katmandu	4,388	25·525	25·431	·094	25·481	?		82·5	65·8	16·7	87·8	60·9	26·9	75·9	78·0	73·0	−0·6	64·5	69·4	70·4	68
	Darjeeling		23·066	22·990	·076	23·031	+·063		65·7	54·5	11·2	79·8	50·5	29·3	60·8	61·7	59·1	+0·4	53·0	58·7	59·7	57
Hill Stations, Central India.	Mount Abu		26·002	25·931	·071	25·965	+·007		72·1	65·2	6·9	76·1	62·6	13·5	69·3	70·6	68·3	−0·8	63·1	66·2	67·1	65
	Pachmarhi		·352	26·267	·085	26·311	−·021		74·3	66·4	7·9	78·2	57·0	21·2	70·2	72·3	69·4	−1·1	66·2	68·3	69·5	68
	Chikalda	3,642	·246	·154	·092	·201	−·015		72·3	65·6	6·7	76·8	60·9	15·9	68·6	71·3	68·2	−0·7	65·2	67·8	69·4	67
Hill Stations, South India.	Wellington		24·256	24·184	24·072	·220	+·024		71·5	57·0	14·5	74·9	46·3	28·6	68·2	66·9	63·1	+0·9	54·5	61·6	61·9	59
	Kodai Kanal		22·848	22·777	·071	22·812			63·4	52·5	10·9	67·7	50·1	17·6	60·4	58·1	56·7		50·5	56·6	56·6	54
Extra India.	Aden		29·749	29·623	·126	29·679	+·001	·703	93·1	82·7	10·4	97·1	78·3	18·8	88·8	91·2	87·6	+0·5	75·7	80·0	78·7	78
	Perim		·641	·530	·111	·579	+·025	·709	95·4	84·6	10·8	100·7	80·2	20·5	91·6	91·9	89·1	+0·5	79·2	83·5	82·5	81
	Minicoy		·990	·912	·078	·953		·885	84·4			88·4			81·5	82·1				76·9	77·0	
	Zanzibar		30·101	·988	·113	30·045	+·026	30·044	82·7	74·2	8·5	85·0	72·4	12·6	77·8	81·2	78·1	+0·6	69·5†	73·3¶	72·6¶	71
	Port Victoria (Seychelles).	15	·048	·962	·086	·005	+·025	29·946	81·8	75·3	6·5	83·5	71·6	11·9	80·9	81·4	78·5	−0·5	71·8	74·7	74·7	73
	Mauritius (Pamplemousses).	181																				

† Mean of 29 days.

§ Mean of 27 days.

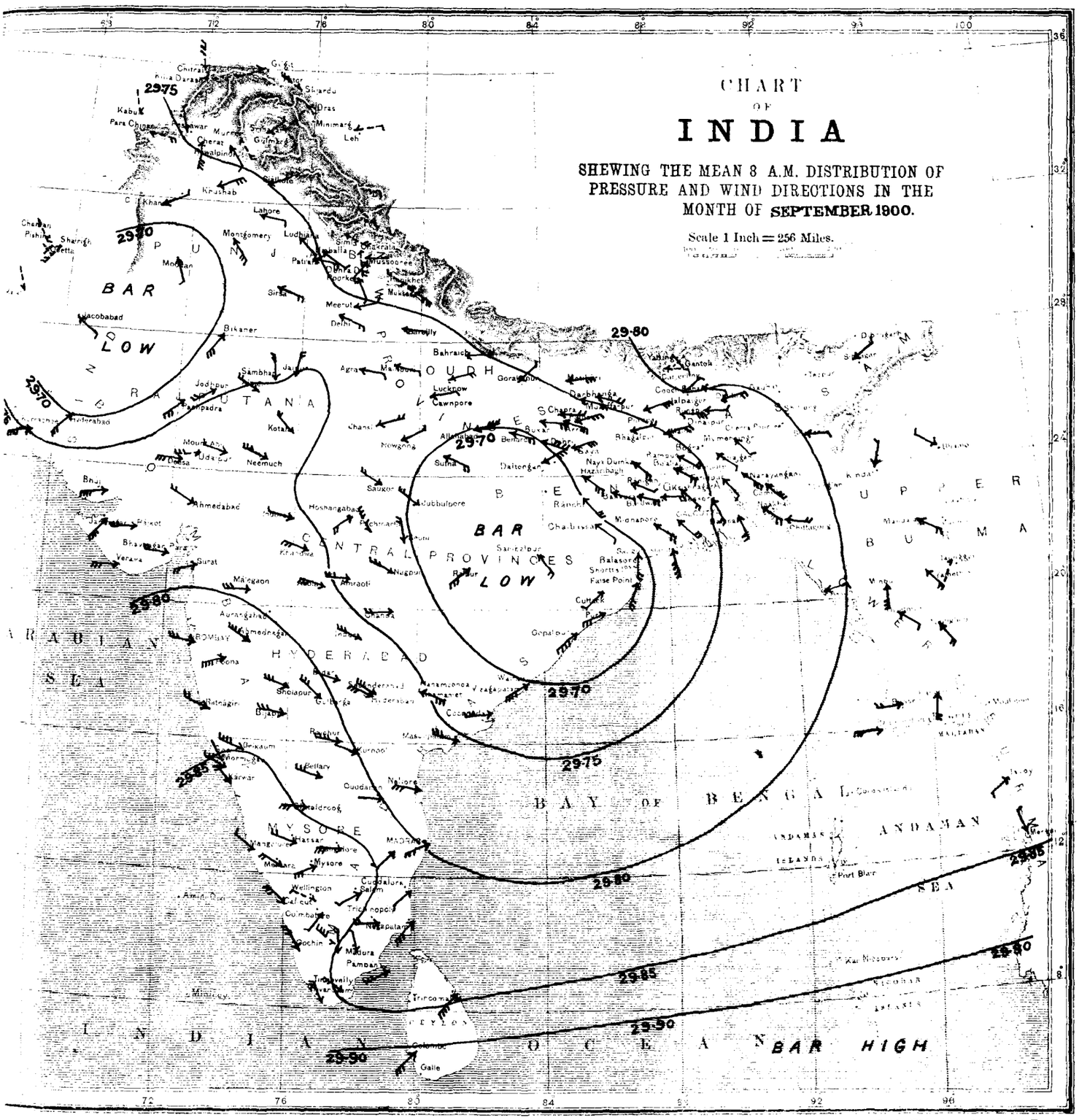
—concluded.

India, Burma, etc., for September 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Number of Winds from											Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
																									%	%						
712	·676	·696	·693		90	56	60	69		5·0	8·2	6·6		9	6	8	5	2	6	10	6	8	N 68° W		12		76*				Periykulam .	South India.
762	·782	·793	·779	+·033	94	69	60	74	+ 2	6·0	7·0	6·5	+0·9	20	1				2	16	17	4	S 73° W	S 63° W	55	69	56*	82			Salem . .	
534	·645	·633	·638	+·046	90	70	59	73	+ 4	8·6	7·7	8·2	+0·5							14	30	16	N 88° W	N 87° W	85	78	229*	228			Chitaldroog .	
526	·644	·646	·639	+·036	97	76	65	79	+ 3	8·4	7·7	8·1	+1·8	3	2					16	23	16	N 85° W	S 85° W	77	84	189*	167			Bangalore .	
596	·632	·637	·622	+·044	96	71	73	80	+ 4	8·3	8·8	8·6	+0·7							9	34	17	N 84° W	N 79° W	89	79	83*	91			Hassan . .	
528§	·641	·646	·646	+·051	98	68	66	77	+ 6	8·9	9·0	9·0	+1·4		3			1	1	24	24	7	S 77° W	N 87° W	77	68	239*	266			Mysore . .	
	·816	·868	·861	+·038		64	68	75	+ 2	6·5	7·1	6·8	+0·7		2	1	1	9	4	10	22	10	S 75° W	S 36° W	49	52	152	149			Madras . .	
510	·589	·588	·596	−·058	73	53	45	57	− 7	8·5	8·6	8·6	+1·1	1						5	30	24	N 75° W	N 78° W	87	75	275*	223			Bellary . .	
753	·866¶	·884¶	·834		79	74¶	74¶	76		7·1	7·3	7·2					7	7	4	34	6	2	S 32° W		62		138				Waltair . .	
?	·807	·221	?	?	?	30	19	?	?	0·1	0·7	0·4	−0·1	45			1		.	1	6	7	N 63° W	N 60° W	18	42	24*	62			Quetta . .	Hill Station, Baluchistan.
95	·221	·209	·208	+·036	66	37	28	44	+ 3	2·8	4·3	3·6	−0·5		1	3	1	1	10	22	19	3	S 57° W.	S 58° W	65	39	59	42			Leh. . .	Hill Stations, Northern India.
83	·669	·715	·632	+·139	92	86	74	84	+ 6	3·8	3·1	3·5	−0·1	20	5	2	4	10	8		5	6	S 35° E	N 24° W	8	12	81*	76			Srinagar .	
93	·838	·274	·302	+·057	87	57	45	63	+ 4	4·9	6·7	5·8	+1·0		1	1		1	10	19	12	16	S 73° W	S 57° W	62	61	51	38	0·77	0·26	Kailang . .	
12	·470	·493	·458	+·017	88	86	89	88	+10	7·7	9·0	8·4	+2·6	6	7	10	3	5	19	9		1	S 33° E	N 13° E	20	30	71	99			Simla (Ridge)	
44	·502	·507	·484	+·012	94	87	91	91	+ 7	8·4	9·0	8·7	+2·4	3	4	1	1	16	31	3		1	S 14° E	S 73° W	67	37	190	128			Chakrata .	
80	·530	·548	·519	+·011	92	80	82	85	+ 4	7·9	8·0	8·0	+2·0	19	2	2	2	2	1	12	12	8	S 85° W	S 55° W	35	37	58*	52			Ranikhet .	
98	·467	·484	·450		91	83	83	86		7·5	8·0	7·8		8	2	1	6	27	5	4	2	5	S 40° E		45		156*				Muktesar .	
94	·653	·665	·637	+·006	93	72	69	78	− 1	6·1	7·4	6·8	+0·5		1	1	27	1	1	6	18	5	S 76° E	N 80° W	5	14	29	17	6·47	1·94	Katmandu .	Hill Stations, Northern India.
90	·476	·495	·454	−·024	91	89	90	90	− 4	7·5	7·8	7·7	−0·6	10		12	12	8	1	6	5	6	N 82° E	S 58° E	22	6	74*	85			Darjeeling .	
59	·609	·628	·599	+·052	89	86	85	87	+10	8·1	7·4	7·8	+2·4	4	8	3	4		3	25	10	3	S 79° W	S 73° W	42	34	192*	183			Mount Abu .	Hill Stations, Central India.
39	·673	·690	·668	+·044	98	91	87	92	+10	9·1	8·6	8·9	+1·7	5	5	10	1			2	16	21	N 44° W	N 59° W	59	45	275*	145			Pachmarhi .	
20	·672	·599	·664	+·035	98	96	91	95	+ 6	8·7	7·6	8·2	+0·8	17	34							9	N 9° W	N 23° W	68	66	354*	244	24·15	7·70	Chikalda .	
05	·483	·505	·464	+·036	86	70	76	77	+ 1	7·9	9·3	8·6	+1·5	14	7	2		11	5	10	1	10	S 53° W	S 56° W	12	33	69	70			Wellington .	Hill Stations, South India.
50	·422	·443	·402		88	82	92	87		6·5	9·2	7·9		5	2		1	5	3		1	43	N 46° W		62		285				Kodai Kanal .	
99	·908	·817	·841	−·008	71	67	55	64	− 2	3·2	2·4	2·8	+0·5		2	5	7	16	16	12	2		S 21° E	S 23° E	53	50	278*	220			Aden . .	Extra India.
32	1·049	·997	·993	+·146	78	70	67	72	+10	1·0	2·5	1·8	−1·0		2	5	15	7	2	4	12	13	N 6° W	N 42° E	8	28	310*	276			Perim . .	
	·863	·862				80	79			5·9	6·0	6·0			3					4	18	35	N 61° W		87		183*				Minicoy . .	
58†	·763¶	·692¶	·704	−·023	78†	80¶	66¶	75	− 3	6·5	5·1	5·8	+1·0	1	7	2		12	23	13	2		S 2° W	S 8° E	53	63	† 135*	138			Zanzibar. .	
10	·784	·776	·767	+·044	84	74	73	77	+ 2	6·0	5·3	5·7	+0·1				12	44	3	1			S 51° E	S 41° E	92	90	288	292	2·80	0·73	Port Victoria (Seychelles). Mauritius (Pamplemousses).	

¶ Mean of 28 days.

* Corrected.



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 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 " " "	[illegible]	
" " 10 to 20 " " "	[illegible]	
over 20 " " "	[illegible]	

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 coarsely lines [illegible] 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.

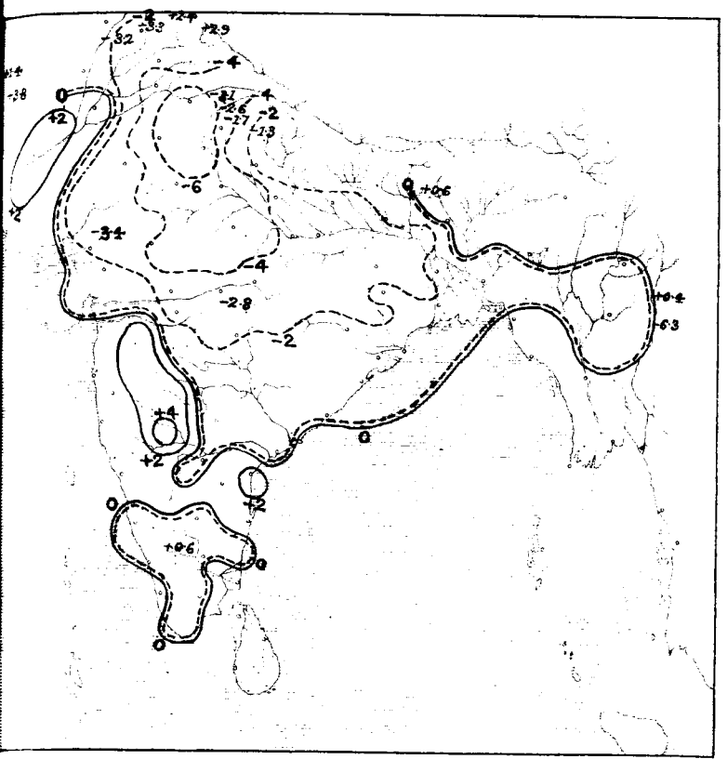
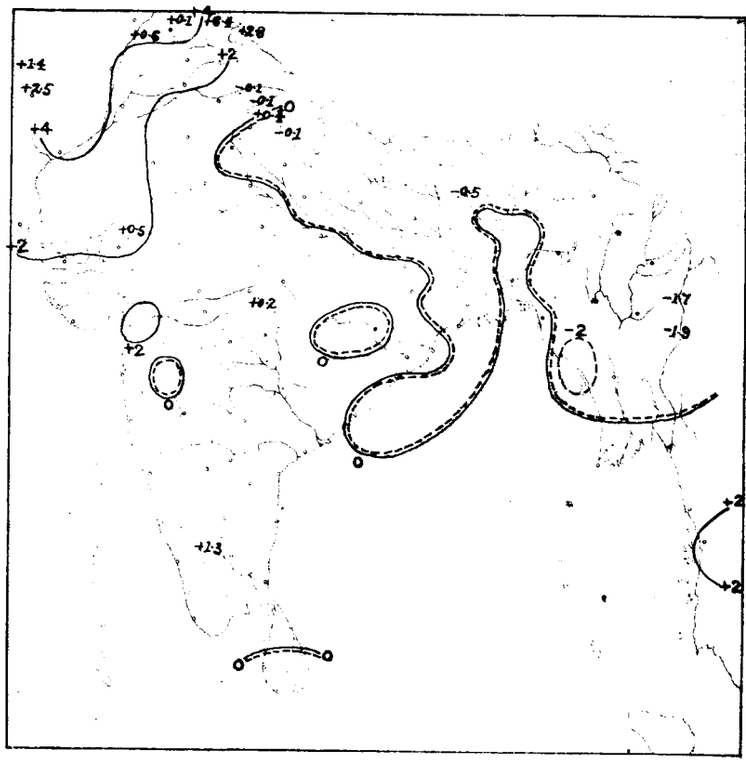


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

ntinuous lines indicate that the mean maximum of month was in ess by amounts indicated by the attached numbers. Broken or dotted s that it was in defect by the amounts indicated by the attached bers. Double lines are the lines of no variation, the broken line facing 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 the 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.

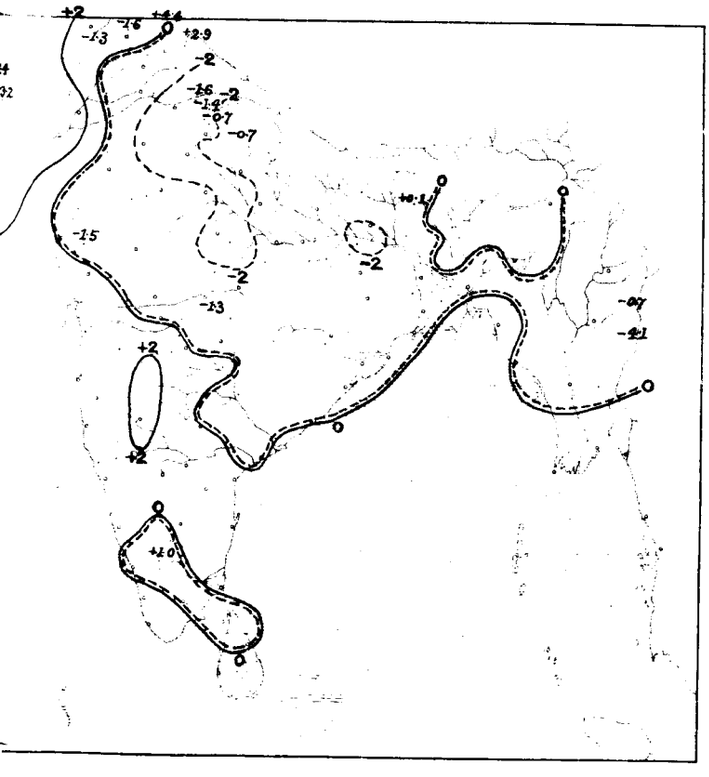
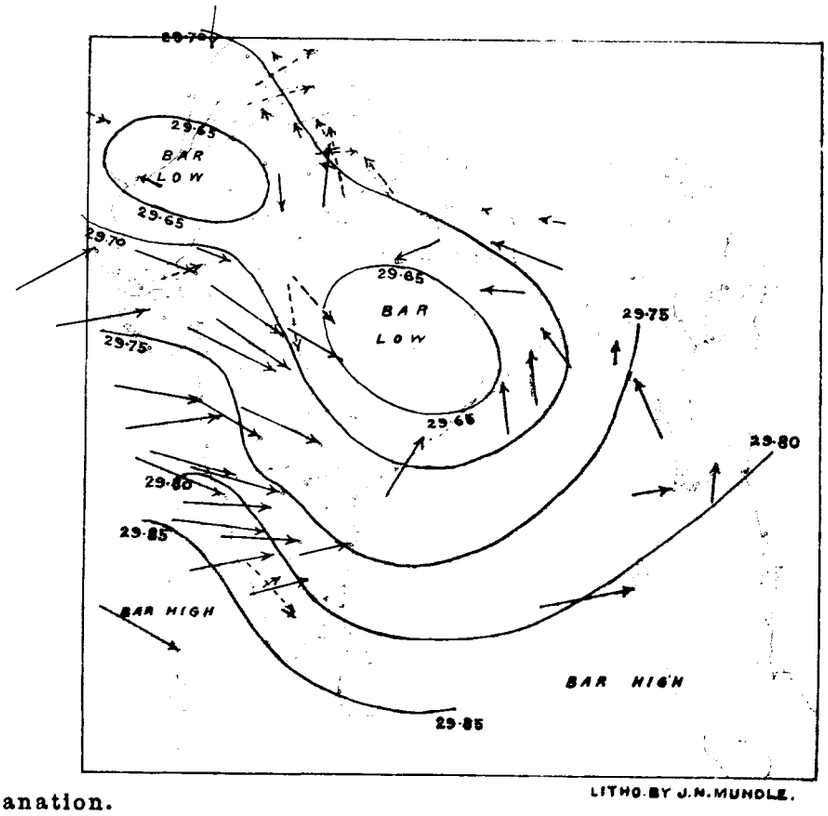


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF SEPTEMBER 1900.



LITHO. BY J. N. MUNDLE.

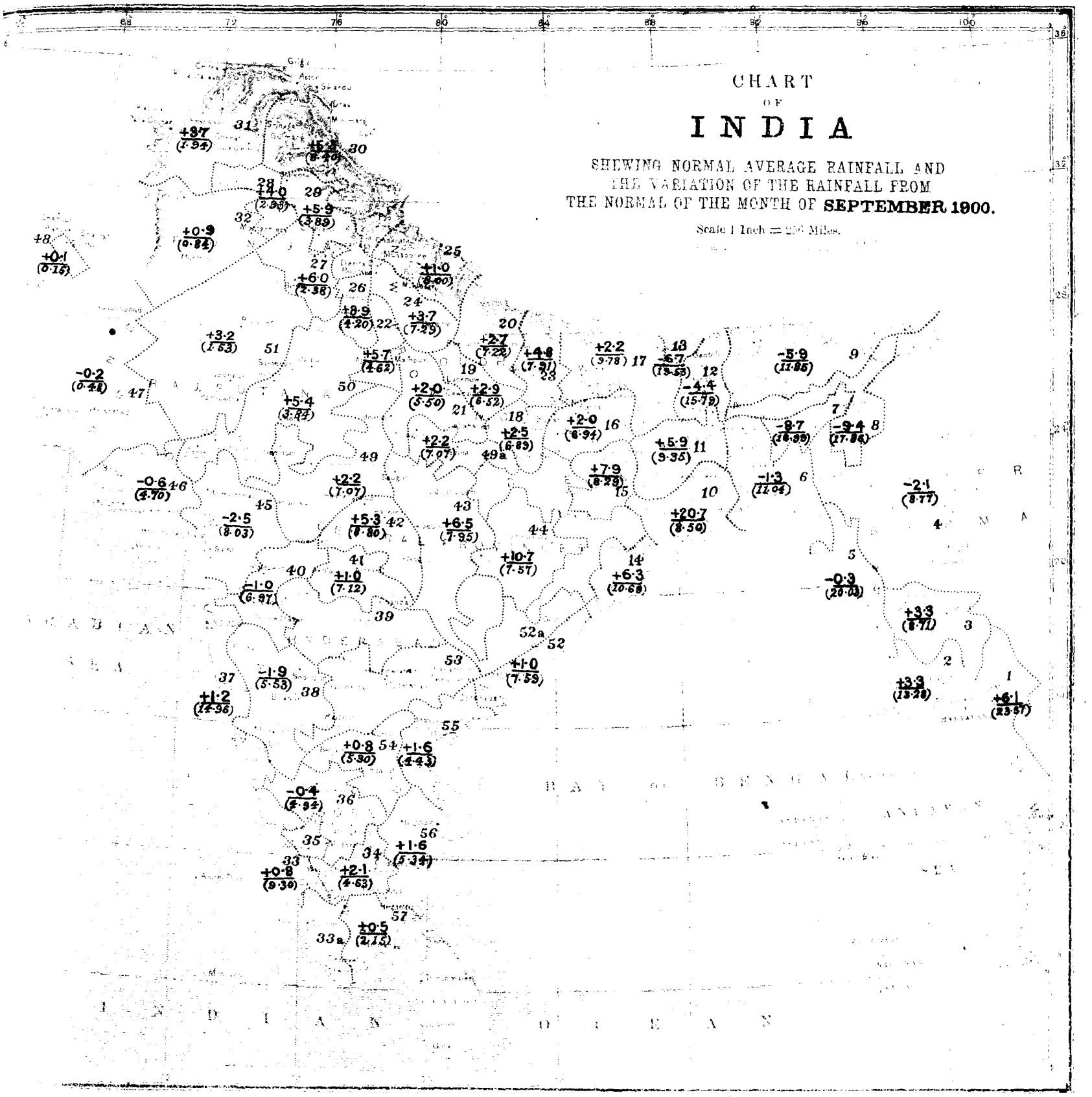
Explanation.

ontinuous lines indicate that the mean daily temperature of month as in excess by amounts indicated by the attached numbers. Broken dotted lines that it was in defect by the amounts indicated by the tached numbers. Double lines are the lines of no variation, the broken e facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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

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 used in the preparation of this Chart are the rainfall returns of all the observatories in India (182 in number), except those at the Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of ch from those 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 variations of the rainfall of the month to tenths of an inch from the normal over the whole of India and [illegible] with the exception of Upper Burma for which rainfall data have not been [illegible] number of years to furnish [illegible] and useful means. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, [illegible] staple crops similar in character; and the means both actual and normal [illegible] and the numbers [illegible] the centre of each division usually with a + or − sign attached [illegible] the difference between the [illegible] and normal mean [illegible] of the district of the month. A plus sign indicates that the rainfall [illegible] was in defect by [illegible] amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller [illegible] enclosed within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained [illegible] in the following list to the number given near the right hand bo[illegible] district in small [illegible] figures.

[illegible]	17. North Bihar	33. [illegible]	48. [illegible]
[illegible] Burma Deltaic	18. North Western Provinces, East	33a. [illegible]	49. [illegible]
[illegible] do.	19. South Oudh	34. [illegible]	50. [illegible]
[illegible] do.	20. North do.	35. [illegible]	51. [illegible] Central India
[illegible]	21. North Western Provinces, Central	36. [illegible]	52. [illegible]
East Bengal	22. Do. do. West	37. [illegible]	53. Madras, East Coast, North
Assam, Surma	23. Do. do. East Submontane	38. Bombay Deccan	52a. Do. do. do. (a)
Do. Hills	24. Do. do. West do.	39. Hyderabad, North	53. Hyderabad, South
Do. Brahmaputra	25. Do. do. Hills	40. Khandesh	54. Madras, Central
Deltaic Bengal	26. South East Punjab	41. Berar	55. Madras, East Coast, Central
Central do.	27. South do.	42. Central Provinces, West	56. Do. East Coast, South
North do.	28. Central do.	43. Do. Central	57. Madras, South
Bengal Hills	29. Punjab, Submontane	44. Do. East	
Orissa	30. Do. Hills	45. Gujarat	
Chota Nagpur	31. North Punjab	46. Kathiawar	
South Bihar	32. West do.	47. Sind	

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, OCTOBER, 1900.

INTRODUCTION.

THIS review of the weather in India during the month of October 1900 is based on observations taken daily at 8 A.M. at 217 stations, and on additional observations taken at 10 A.M. and 4 P.M. at 66 stations. The rainfall summary is based on the rainfall data of the meteorological observatories and the weekly rainfall telegrams received during the month from District Officers throughout India, 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.

Summary of the chief features of the weather in India during the month of October, 1900.

October is pre-eminently a month of transition. The south-west monsoon winds usually begin to retreat from North-Western India before the end of September and withdraw from Northern India, the north of the Bay and the north and centre of the Arabian Sea before the end of the month of October. South-west humid winds continue to blow with more or less steadiness in the south of the Arabian Sea and the south and centre of the Bay. These south-west winds in the Bay are deflected through south-south-east and east and blow as north-east winds on the Coromandel coast. As long as south-west winds continue to prevail in the south of the Bay (which is usually until the middle or end of December), the north-east winds blowing across the Coromandel coast,give more or less frequent rain to Southern India which is heaviest in the coast districts. In Northern India light variable winds or calms generally prevail. The mean air movement is, however, from the west down the Gangetic Plain. In the Peninsula winds range between east and north-east. The mean air motion over the whole of the Indian area, except the southern portions of the Bay of Bengal and the Arabian Sea, although generally feeble, is opposite in direction to that which obtains in September. These changes in the mean wind directions accompany corresponding changes of pressure. Pressure rises rapidly in North-Western India, Assam and Upper Burma and moderately in Central India and the north of the Peninsula. Before the end of the month pressure is usually highest in Upper India, and is lowest in the centre or south of the Bay. The range of pressure is, however, small and baric gradients are very slight. The most important feature of the pressure distribution during the month is hence its approximate uniformity. Pressure is slightly higher in the interior than in the coast districts, and is lowest in the Bay and the south of the Peninsula. Temperature begins to fall rather rapidly in Sind, West Rajputana and the South-West Punjab, which are dry hot areas during the rains. The mean temperature conditions of the month, like the mean pressure conditions, are more uniform in October than in any other month of the year. The mean temperature of the month varies from

73° (in the North Punjab) to 85° (in Central Rajputana), and the daily range of temperature from 35° in Upper Sind and West Rajputana to 10° in the coast districts of Bengal and Madras. The amount of aqueous vapour in the air diminishes rather rapidly in North-Western and Central India during the month. The decrease in humidity is usually greater in the North-Western Provinces, East Rajputana and Central India than in the Punjab, in consequence of the greater fall of temperature in the latter area. Rain is chiefly received in Bengal, Burma, Madras and the Deccan. In Bengal and Burma it occurs usually during the first half and in the Peninsula during the second half of the month. One of the most important meteorological features of the month is the tendency to the formation of extensive and intense cyclones in the Bay. These appear to require a considerable period for their development, and the conditions of uniform temperature and pressure of the month are especially favourable to their growth, provided the humid south-west current in the south of the Bay be strong enough to ensure abundant supplies of aqueous vapour, the condensation of which undoubtedly supplies the motive power of these storms.

October 1900 was characterised by finer weather than usual over the greater part of the country. Two storms, which is about the normal average number, appeared over the Bay during the month. The first passed across the north of the Bay and travelling along a curved course passed through Orissa, Ganjam, the east of the Central Provinces and West Bengal. This storm gave moderate rain along its course, but did not seriously affect the weather outside the storm area. The second storm crossed the centre of the Bay, struck the Madras coast a little to the north of Madras and apparently broke up among the broken ground of the interior of the Peninsula. This storm occasioned heavyish rain over the south of the Peninsula. The rainfall of the month was hence normal or in slight excess over Southern India, while elsewhere the rainfall was generally lighter than usual. Over North-Western and Central India practically no rain fell throughout the month.

At the commencement of the month the mean temperature was below the normal all over Northern and Central India and generally above over the Peninsula and North-East India. The low temperatures over Northern India gradually extended southward and between the 1st and the 6 thhe mean temperature was below the normal over the greater part of the country, the only exceptions being parts of North-East India and the coasts of the Peninsula. The principal deficiency occurred over the Punjab, Rajputana and the North-Western and Central Provinces, and Central India. The following gives temperature variation data for the above divisions from the 1st to the 6th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	1st October.	2nd October.	3rd October.	4th October.	5th October.	6th October.
	°	°	°	°	°	°
Punjab . . .	−4·4	−3·1	−2·4	−0·3	−2·4	−1·9
Rajputana . . .	−3·4	−3·8	−3·4	−2·0	−1·8	−0·2
North-Western Provinces and Oudh.	−4·4	−4·5	−3·4	−2·4	−1·6	−1·1
Central Provinces .	−2·4	−3·6	−4·4	−3·5	−2·2	−2·3
Central India . .	−2·6	−6·0	−3·9	−3·1	−2·9	−2·7

In the meantime the first cyclonic storm of the month had developed over the Bay. The storm appeared over the east of the Bay on the 1st, reached the centre of the Bay on the 2nd, the north-west of the Bay on the 3rd and 4th, developed off the Orissa coast on the 5th, crossed that coast on the 6th, and reached the east of the Central Provinces on the 7th, and 8th, the east of the North-Western Provinces on the 9th, West Bengal on the 10th, and broke up over Bengal on the 11th. The storm had not been preceded by much rain though showers had fallen on the Circars coasts on the 4th, but immediately the storm approached the coast heavy rain commenced in Orissa, and accompanied the storm centre in its passage to Bengal though outside the central area, the weather was only slightly affected. This localised rainfall reduced temperature in the immediate neighbourhood of the storm and the following gives the two stations exhibiting the greatest departure from the normal on each day from the 6th to the 12th along the path of the storm :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date	Minimum temperature of date.	Mean temperature of date.
		°	°	°
6th October .	Gopalpur . .	− 4·5	−1·1	−2·8
" " .	Cuttack . .	− 4·4	−0·1	−2·3
7th " .	Do. . .	−10·0	−0·6	−5·3
" " .	Sambalpur . .	− 9·0	+0·8	−4·1
8th " .	Raipur . .	−12·2	−2·8	−7·5
" " .	Sambalpur . .	− 7·9	+3·0	−2·5
9th " .	Gaya . .	− 7·1	−4·8	−6·0
" " .	Benares . .	− 8·0	+0·3	−3·9
10th " .	Gaya . . .	−10·0	−5·3	−7·7

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
10th October .	Gorakhpur . .	—13·5	—0·3	—6·9
11th " .	Gaya . . .	— 8·8	—3·8	—6·3
" " .	Patna . .	— 9·4	+0·6	—4·4
12th " .	Gaya . . .	— 7·5	—4·6	—6·1
" " .	Patna . .	— 4·1	—0·2	—2·2

As mentioned above the rainfall, though not extensive, was locally heavy in the neighbourhood of the storm. The following gives the principal amounts over the Circars, Orissa, the Central Provinces, the North-Western Provinces and Bengal, between the 6th and the 12th:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
GANJAM . . .	Daringabad . .	6th Oct. 1900	9·60
ANGUL . . .	Talchar . . .	" " .	5·81
ORISSA TRIBUTARY MAHALS.	Kunjabongarh . .	" " .	5·58
GANJAM . . .	Udayagiri . . .	7th " .	10·90
PURI . . .	Khurda . . .	" " .	9·60
CUTTACK . .	Banki . . .	" " .	8·44
GANJAM . . .	Rambha . . .	" " .	8·10
PURI . . .	Kanas . . .	" " .	7·53
GANJAM . . .	Russellkonda . .	" " .	7·22
Do. .	Aska . . .	" " .	6·90
Do. .	Berhampur . . .	" " .	6·88
Do. .	Chatrapur . .	" " .	6·79
Do. .	Ramagiri . . .	" " .	6·60
RAIPUR . . .	Raipur . . .	8th " .	5·85
MIRZAPUR . .	Dudhi . . .	" " .	5·32
BENARES . .	Chandauli . . .	9th " .	9·11
MIRZAPUR . .	Chakia . . .	" " .	7·82
Do. . . .	Robertsganj . .	" " .	7·34
GHAZIPUR . .	Zamania . .	" " .	6·60
MIRZAPUR . .	Chunar . . .	" " .	6·15
GHAZIPUR . .	Ghazipur . . .	" " .	6·12
SHAHABAD . .	Bassowan . . .	10th " .	6·35
BHAGALPUR . .	Bhagalpur . . .	" " .	5·09
BASTI . . .	Domariaganj . .	11th " .	2·75
GORAKHPUR . .	Gorakhpur . . .	12th " .	3·75
Do. . .	Bansgaon . . .	" " .	2·50

While these changes were in progress over North-East India, the weather was fine with westerly and north-westerly winds over the Peninsula and the relatively low temperatures, which had prevailed between the 1st and the 6th disappeared before the advance of a high temperature wave which apparently came in from the eastward. The following gives temperature variation data for the Peninsular divisions from the 7th to the 12th:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	7th October.	8th October.	9th October.	10th October.	11th October.	12th October.
	°	°	°	°	°	°
West Coast . .	+0·9	+0·2	+0·7	+0·7	+1·2	+1·3
Bombay Deccan . .	+0·5	—0·1	+2·8	+1·4	—1·0	—0·7
Mysore . . .	+0·8	—0·9	+1·2	+2·2	+3·2	+2·0
Madras Coast . .	+0·6	+1·1	+2·8	+3·4	+2·9	+1·9
Madras Deccan . .	—0·7	—0·5	+2·2	+2·4	+1·2	+2·2
South India . .	—0·1	—0·4	+1·5	+3·5	+3·8	+2·7

No important change occurred during this time in North-West India where the mean temperature remained steadily low until the 11th. The following gives comparative data from the 7th to the 11th for the Punjab, Rajputana and Sind:—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	7th October.	8th October.	9th October.	10th October.	11th October.
	°	°	°	°	°
Punjab	—2·3	—2·8	—3·6	—4·0	—3·4
Rajputana	—0·1	—1·5	—2·7	—1·7	—4·0
Sind	—0·9	—3·3	—4·6	—4·9	—0·1

From the 12th to the 19th the weather was generally quiet, with a large area of high pressure lying over the central parts of the country. Showers occurred over the south of the Peninsula, but except on the 19th they were neither heavy nor extensive. They hence occasioned no reduction of temperature over the Peninsula where the heat remained steadily in excess of the normal.

The following gives comparative temperature data for the Peninsular divisions from the 13th to the 19th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	13th October.	14th October.	15th October.	16th October.	17th October.	18th October.	19th October.
	°	°	°	°	°	°	°
West Coast	+1·2	+0·8	+1·3	+1·9	+1·7	+2·3	+2·5
Bombay Deccan	+1·3	+1·9	+1·0	+0·6	—1·2	—0·2	+1·7
Mysore	+2·9	+2·9	+2·5	+1·7	+1·6	+2·1	+1·7
Madras Coast	+1·7	+2·3	+1·8	+2·3	+2·4	+1·5	—0·1
Madras Deccan	+4·1	+4·7	+4·2	+3·7	+2·1	+3·5	+2·3
South India	+1·5	+1·0	+1·0	+1·1	+0·8	—0·2	—1·3

On the 20th the second cyclonic storm of the month commenced to appear. The storm was preceded by a brisk fall of the barometer and a shift of wind to west and north-west over Lower Burma on the 19th. On the 20th the depression was shown over the Gulf of Martaban, on the 21st the centre lay to the south of Diamond Island, on the 22nd near the Andamans, on the 23rd over the centre of the Bay and on the 24th close to the Madras coast about 80 miles to the north-east of Madras. Heavy rain commenced along the Madras coast on the morning of the 24th and brought about a brisk fall of temperature. The following gives temperature variation data for the Madras Coast division from the 23rd to the 26th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	23rd October.	24th October.	25th October.	26th October.
	°	°	°	°
Madras Coast	+1·1	—2·2	—4·0	—0·8

The storm broke up quickly after passing the coast and the rainfall fell off abruptly. The following gives the heaviest falls recorded between the 23rd and the 26th :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date
			Inches.
South Arcot	Merkanam	24th Oct. 1900.	9·26
Chingleput	Cheyur	" " "	8·00
Do.	Madurantakam	" " "	7·53
South Arcot	Tindivanom	" " "	7·31
Chingleput	Chingleput	" " "	6·25
North Arcot	Arkonam	24th Oct. 1900	5·59
South Arcot	Vanur	" " "	5·20
Chingleput	Conjeevaram	" " "	5·15
Vizagapatam	Waltair	25th " "	4·65
Godavari	Coringa	" " "	3·59
Ganjam	Surada	" " "	3·54
Godavari	Rajahmundry	" " "	3·30
Nellore	Pakala	26th " "	2·32
Godavari	Mummidivaram	" " "	1·61
Ganjam	Narsannapeta	" " "	1·33
Kistna	Sattenapalle	" " "	1·31

In the meantime the weather had become slightly disturbed in the extreme north-west of India on the 20th. A little rain fell on the plains and slight rain and snow on the hills. This was followed by a brisk fall of temperature and feeble cold wave. This is shown in the following statement which gives the temperature variations of Baluchistan, the Punjab, Sind and Rajputana from the 20th to the 25th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	20th October.	21st October.	22nd October.	23rd October.	24th October.	25th October.
	°	°	°	°	°	°
Baluchistan	+2·2	+0·4	0	+0·6	—0·9	—5·0
Punjab	+4·1	+1·3	—3·2	—1·8	—0·9	—1·2
Sind	+2·9	+3·6	+3·1	+0·9	+0·9	+1·3
Rajputana	+2·6	+2·0	—0·6	—0·7	+0·5	—0·9

Steadily high temperatures prevailed at this time over Central India, the Central Provinces and the Deccan. The following gives temperature data from the 20th to the 26th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	20th October.	21st October.	22nd October.	23rd October.	24th October.	25th October.	26th October.
	°	°	°	°	°	°	°
Central India	+0·5	+0·3	+0·6	+0·7	—0·7	—1·9	—3·1
Central Provinces	—0·5	+0·5	+1·2	+0·2	—1·1	—0·5	+0·3
Bombay Deccan	—0·2	+0·3	+1·2	+3·0	+2·2	—2·0	+3·2
Madras Deccan	+1·1	+0·2	+0·8	+1·5	+0·1	+0·9	—0·5

From the 27th to the end of the month the weather remained quiet and settled with high pressures over the Punjab and the central parts of the country and relatively low pressures in the south. A large area of relatively low temperature lay over Gujarat, Rajputana, Central India, the Central Provinces and the North-Western-Provinces on the 27th and this area gradually passed eastward till, by the end of the month, it was central over Orissa and Bengal. The following gives temperature variation data for Rajputana, Central India, the Central Provinces, the North-Western-Provinces, Orissa and Bengal, from the 27th to the 31st, and shows the easterly advance of the area of low temperature :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	27th October.	28th October.	29th October.	30th October.	31st October.
	°	°	°	°	°
Rajputana	−1·8	+0·2	+1·4	+2·9	+2·9
Central India	−3·2	−2·5	−1·3	0	+1·8
Central Provinces	−0·7	−1·2	−1·0	−0·7	+0·7
North-Western Provinces and Oudh.	−2·0	−1·7	+0·4	+0·5	+1·2
Orissa	−0·5	−1·1	−0·7	−1·8	−2·6
Bihar	−1·1	−1·2	−1·3	−1·1	−0·8
Chota Nagpur	−1·0	−1·4	−1·1	−1·6	−0·5
Bengal	+0·4	−0·3	−0·4	−1·1	−1·6

Elsewhere the heat was generally greater than usual, the greatest excess having been reported from the Bombay Deccan and Gujarat. The following gives data for these two provinces :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF				
	27th October.	28th October.	29th October.	30th October.	31st October.
	°	°	°	°	°
Bombay Deccan	+4·8	+4·5	+4·6	+1·5	+2·7
Gujarat	+1·	+2·8	+1·0	+2·2	+3·5

Pressure:—The mean pressure of the Indian land area was 0·040″ above the normal.

Compared with this general condition pressure was in local defect over the south of the Peninsula, the Bay area, Burma and Tenasserim. The deficiency was generally slight or small, but was moderate and more than 0·02″ in two areas, one including Malabar and South Ceylon, the other Lower Burma and Tenasserim. Pressure was also in very slight local defect at one or two stations in the west of the North-Western Provinces. Pressure was, relatively to the general condition, in excess over the remainder of India. The excess was absolutely greatest at Khandwa (+0·031″), Hoshangabad and Amraoti (+0·030″) and Bhuj and Indore (each +0·028″).

The vertical pressure anomalies were moderate and positive, in the Eastern Himalayan region and slight and negative in the Baluchistan and central hill districts. Elsewhere they were small and unimportant. The following table gives the mean pressure variations and anomalies of the month for the eleven meteorological provinces :—

Meteorological Province.	Variation from normal of mean 8 A.M. pressure of October 1900.	Pressure anomaly, October 1900.
	″	″
Burma Coast and Bay Islands	+·007	−·033
Burma Inland	+·027	−·013
Assam	+·035	−·005
Bengal and Orissa	+·038	−·002
Gangetic Plain and Chota Nagpur	+·047	+·007
Upper Sub-Himalayas	+·047	+·007
Indus Valley and North-West Rajputana	+·055	+·015
East Rajputana, Central India and Gujarat	+·052	+·012
Deccan	+·054	+·014
West Coast	+·029	−·011
South India	+·029	−·011

Temperature.—In consequence of the late continuance of the rains in Upper India and their lightness and early withdrawal from parts of the Peninsula, the variations of the mean temperature conditions of the month from the normal were unusually large.

The mean day or maximum temperature of the month was above the normal at nearly all stations in the Peninsula and North Bombay, as well as over Bengal, Assam, the Arakan coast, Lower Burma, and Tenasserim. In North-East India and Burma the variations were generally small, but exceeded 2° at Silchar (+2°·7) and Dhubri (+2°·4). Over the Peninsula, on the contrary, the variations were large and exceeded 4° at Bijapur (+4°·6) and Surat (+4°·2). Over the remainder of India the mean maximum temperature was below the average. The deficiency in many places was considerable and was more than 3° at Ludhiana (—4° 0), Delhi (—3°·6) and Montgomery (—3°·2).

The mean night or minimum temperature of the month was higher than usual over Baluchistan and the Punjab, on the one hand, and over the south of the Peninsula, the Bay area and Burma on the other. The excess was

generally small, but exceeded 2° at Diamond Island (+2°·9) and Mergui (+3°·4); and equalled 2° at Khushab. The mean night temperature was below the normal over the remainder of India. The deficiency was most marked over the central parts of the country, where it equalled 5°·0 at Khandwa, 4°·7 at Akola, 4°·4 at Hoshangabad and 4°·0 at Indore.

The mean temperature of the month was generally above the normal over the Peninsula and the greater part of Bengal, Assam, and Burma. The excess was small except over the Peninsula, where Bijapur reported a variation of +2°·5, Cuddapah of +2°·4, Cochin of +2°·1 and Belgaum of +2°·0. Over the remainder of India the mean temperature was generally below the normal. The deficiency was largest in two areas, one covering the east of the Punjab (Ludhiana —2°·5) and the west of the North-Western Provinces (Roorkee—2°·2), the other the north of the Central Provinces (Hoshangabad —2°·9) and the south of the Gangetic Plain (Benares—2°·2).

At the hill stations the mean temperature was generally lower than usual, but in the case of Quetta, Darjeeling and Wellington there was some excess.

The following table gives temperature variation data for the month for the eleven meteorological provinces of India :—

Meteorological Province.	Variation of actual from normal of		
	Mean maximum temperature, October 1900.	Mean minimum temperature, October 1900.	Mean daily temperature, October 1900.
	°	°	°
Burma Coast and Bay Islands	+0·8	+1·9	+1·4
Burma Inland	—0·5	+0·6	+0·1
Assam	+1·9	—0·8	+0·5
Bengal and Orissa	+0·5	—0·4	+0·1
Gangetic Plain and Chota Nagpur	—1·5	—1·3	—1·4
Upper Sub-Himalayas	—2·1	—0·6	—1·3
Indus Valley and North-West Rajputana	—0·7	0	—0·4
East Rajputana, Central India and Gujarat.	—0·1	—2·0	—1·1
Deccan	+0·9	—1·8	—0·4
West Coast	+1·9	+0·8	+1·4
South India	+0·8	+0·6	+0·7

Winds.—The winds were weaker than usual over the Bay. In Burma, Bengal and Orissa the winds were slightly to considerably above the normal strength and in the Bengal divisions were more northerly than usual. In North-West India the winds were light, more particularly in Sind, but all over this region they were steadier than the normal. The directions were variable. Over the Arabian Sea the winds were normal in strength, while over the Peninsula the velocity was generally in excess, except in Berar, the Deccan and the West Coast. The wind's direction was somewhat more easterly than usual and in the majority of the divisions the steadiness was greater than the average.

Humidity.—The rains continued later than usual, in September, over Upper India, and the humidity exceeded the normal in the Punjab and the west of the North-Western Provinces in October. The excess was most marked at Lahore (+9) and Ludhiana (+2). On the other hand the south-west monsoon rains failed to a considerable extent over the Deccan and the adjacent regions, and the air was very dry on the mean of the month over that area. The deficiency in the relative humidity was greatest at Sholapur (—21), Buldana (—16), Belgaum (—12), and Akola (—11), but it was more than 5 over a large area including the Central Provinces, Central India, the West Coast and Lower Sind. The air was also exceptionally dry in Bengal, more particularly at the stations of Calcutta (—7) and Chittagong (—4). Elsewhere the relative humidity was generally lower than usual, but ordinarily by small amounts. The following gives the variations of the mean absolute and relative humidities of the month from the normal in nine meteorological divisions :—

Meteorological Province.	Mean absolute humidity.		Mean relative humidity.	
	Average actual, October 1900.	Variation of actual from normal, October 1900.	Average actual, October 1900.	Variation of actual from normal, October 1900.
	"	"	%	
Burma Coast and Bay Islands	·905	+·019	82	—2
Bengal and Orissa	·822	—·015	78	—3
Gangetic Plain and Chota Nagpur.	·624	—·015	67	—2
Upper Sub-Himalayas	·459	—·010	57	+2
Indus Valley and North-West Rajputana.	·459	—·017	48	—3
East Rajputana, Central India and Gujarat.	·387	—·036	40	—3
Deccan	·459	—·114	51	—11
West Coast	·790	—·038	75	—7
South India	·650	0	70	—2

Cloud.—The variations in the cloud amount were similar in general character to those of humidity in most of the divisions of India. Cloud was in excess in Lower Burma and the Bay Islands. It was also in excess in Bengal (Calcutta +0·3), Orissa (False Point +0·8), the east of the North-Western Provinces (Allahabad +0·2), the Punjab (Peshawar +1·0) and Upper Sind (Jacobabad +0·6)

in Northern India; and in the Madras Deccan (Bellary +1·1), Mysore (Mysore + ·6), and South India (Salem +0·2), in the Peninsula, but was less than usual elsewhere. The deficiency was greatest and large in the Bombay Deccan and along the West Coast. The sky was absolutely freest of cloud in Southern Rajputana, Sind and Gujarat, where the cloud proportion on the mean of the month was less than 0·5. The following gives comparative data of the cloud amount for nine meteorological divisions :—

Meteorological Province.	Mean cloud amount.	
	Average actual, October 1900.	Variation of actual from normal October 1900.
Burma Coast and Bay Islands	5·9	+0·3
Bengal and Orissa	4·8	+0·3
Gangetic Plain and Chota Nagpur	2·8	—0·2
Upper Sub-Himalayas	0·8	—0·1
Indus Valley and North-West Rajputana	1·3	+0·3
East Rajputana, Central India, and Gujarat	0·6	—1·2
Deccan	2·9	—1·3
West Coast	2·5	—1·8
South India	6·7	+0·4

Rainfall.—The most important feature of the month was the scantiness of the rainfall. Practically no rain fell over North-Western and Central India. It was about normal over Central and Upper Burma, the North Punjab and the south and south-west of the Peninsula and was more or less in considerable defect over the remainder of India with the exception of Orissa, the east of the Central Provinces, the east and east sub-montane districts of the North-Western Provinces and South Bihar where it was in excess. The excess in the case of these divisions was due to the heavy rainfall which fell along the path of the cyclonic storm which passed from the head of the Bay into South Bihar during the first-half of the month. Rain from the retreating south-west monsoon commenced over the Peninsula about the 17th and continued until the close of the month but the fall was not as heavy as usual and the rainfall of the east coast divisions was from 17°/₀ to 35°/₀ less than the average. The following table gives comparative rainfall data of the eleven meteorological provinces of the Empire :—

Meteorological Province.	Rainfall.			
	Mean actual for October 1900.	Mean normal, for October.	Variation of actual from normal, October 1900.	Percentage variation from normal
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands.	6·74	9·57	—2·82	—29
Burma Inland	4·98	4·50	+0·48	+11
Assam	3·13	5·00	—1·87	—37
Bengal and Orissa.	2·61	5·18	—2·57	—50
Gangetic Plain and Chota Nagpur.	2·02	2·56	—0·49*	—19
Upper Sub-Himalayas	0·12	0.46	—0·33*	—72
Indus Valley and North-West Rajputana.	0·06	0·06	0	0
East Rajputana, Central India and Gujarat.	0·01	0·66	—0·65*	—98
Deccan	0·88	3·04	—2·20*	—72
West Coast	3·16	7·80	—4·63	—59
South India	6·71	7·64	—0·86*	—11

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

Atmospheric Pressure.

The mean pressure of the Indian land area was 0·040″ above the normal and hence was in unusual excess.

Relatively to this general condition pressure was in local defect over the south of the Peninsula, the Bay area, Burma and Tenasserim. The deficiency was slight generally, but exceeded 0·02″ in two areas, the first including Malabar and South Ceylon, and the second Lower Burma and Tenasserim. The following gives comparative data for these two areas :—

Province or Division.	Station.	Variation from normal of mean 8 A.M. pressure of October, 1900.	Pressure anomaly, October 1900.
		″	″
South Ceylon and Malabar Coast.	Colombo	+·002	—·038
	Calicut	+·006	—·034
	Cochin	+·013	—·027
	Mangalore	+·015	—·025

PROVINCE OR DIVISION.	STATION.	Variation from normal of mean 8 A.M. pressure of October 1900.	Pressure anomaly, October 1900.
		"	"
TENASSERIM AND LOWER BURMA.	Tavoy	—·017	—·057
	Moulmein	—·004	—·044
	Rangoon	0	—·040
	Toungoo	+·003	—·037
	Mergui	+·013	—·027
	Bassein	+·014	—·026
	Akyab	+·016	—·024
	Diamond Island	+·017	—·023

Pressure was also in very slight local defect at one or two stations in the west of the North-Western Provinces, as is shown below :—

PROVINCE.	STATION.	Variation from normal of mean 8 A.M. pressure of October 1900.	Pressure anomaly, October 1900.
		"	"
NORTH-WESTERN PROVINCES WEST.	Dehra Dun	+·028	—·012
	Meerut	+·037	—·003

Over the remainder of India pressure was in local excess. The excess was slight to moderate generally. It was moderate in three areas, the first covering the Central Punjab ; the second Lower Sind and part of Kathiawar ; and the third the west of the Central Provinces, the west of Central India, Berar and part of Khandesh. The following gives comparative data for the stations within these three areas :—

AREA.	PROVINCE OR DIVISION.	STATION.	Variation from normal of mean 8 A.M. pressure of October 1900.	Pressure anomaly October 1900.
			"	"
FIRST AREA	Central Punjab	Khushab	+·067	+·027
		Sialkot	+·050	+·020
SECOND AREA	Kathiawar	Bhuj	+·068	+·028
	Lower Sind	Hyderabad (Sind)	+·066	+·026
		Kurrachee	+·064	+·024
THIRD AREA	Central Provinces West.	Khandwa	+·071	+·031
		Hoshangabad	+·070	+·030
	Central India West.	Indore	+·068	+·028
	Berar	Amraoti	+·070	+·030
		Akola	+·065	+·025
	Khandesh	Ahmednagar	+·062	+·022

The chart of barometric variations shows that, with the exception of Rangoon, Moulmein and Tavoy, the mean pressure of the month exceeded the normal everywhere. The excess was slight to moderate in amount over the central parts of India and the northern half of the Peninsula, and this distribution combined with the low pressures over Tenasserim was unfavourable for the occurrence of rain in the northern and central districts of the Peninsula. The chief abnormal features of the pressure conditions of October were the reverse of those prevailing in the preceding month. In September pressure was lowest, relatively to the normal, over the central parts of India and was highest along the foot of the Himalayas, while in October, pressure was highest over the central districts and was relatively low along the line of the hills.

Pressure, on the mean of the month, was in slight to moderate excess at the hill stations, but generally by smaller amounts than at the neighbouring plain stations, and hence the vertical anomalies were on the whole negative though generally small in amount. The largest negative anomaly was reported from the central parts of the country as represented by the station of Pachmarhi. The following gives data for ten pairs of stations :—

HILL STATION.	Variation of actual from normal pressure, October 1900.	PLAIN STATION.	Variation of actual from normal pressure, October 1900.	Vertical pressure anomaly, (Hill-Plain).
	"		"	"
Quetta	+·043	Jacobabad	+·066	—·023
Murree	+·048	Peshawar	+·052	—·004
Simla	+·042	Ludhiana	+·029	+·013
Leh	+·034	Lahore	+·052	—·018
Chakrata	+·047	Roorkee	+·045	+·002
Ranikhet	+·054	Bareilly	+·049	+·005
Darjeeling	+·067	Dhubri	+·025	+·042
Pachmarhi	+·045	Hoshangabad	+·070	—·025
Mount Abu	+·035	Deesa	+·059	—·024
Wellington	+·020	Coimbatore	+·026	—·006

The chief features of the pressure distribution of October 1900 were :—

(1) Large general excess of pressure in the Indian area, averaging ·040" in amount.

(2) The mean pressure of the month was uniform though as usual, somewhat lower over the Bay area than elsewhere.

(3) Relatively to the general condition pressure was in slight to moderate defect over the south of the Peninsula, the Bay area and Burma.

(4) Pressure was in slight to moderate excess over the remainder of India.

(5) The vertical pressure anomalies were generally small and somewhat irregular, but were in the majority of cases negative.

Barometric depressions and cyclonic storms of the month.

Pressure at the commencement of the month was above the normal over the whole of India and Upper Burma, but was below the normal over Lower Burma, Tenasserim and the Andaman Sea. The excess was greatest over Sind and part of Gujarat, while the deficiency was greatest in Tenasserim. Light to moderate showers were falling over the south of the Peninsula and in Lower Burma and the weather was feebly unsettled over the east of the Bay.

October 1st.—The following gives marine data for 8 A.M. of the 1st:—

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *City of Perth*	8 06	82 28	29·795	NW	4	Overcast 8 P.M. heavy rain squalls.
S.S. *Unity*	8 25	84 57	...	SW	3	
S.S. *Borneo*	10 43	83 45	·814	WNW	4	Occasional heavy rain squalls.
S.S. *Shahjehan*	12 43	93 05	·743	SW	3	Fine.
S.S. *Kenley*	14 34	85 13	...	NE	2	4 A.M. passing showers.
S.S. *Ellora*	15 33	97 12	·689	NE	4	
S.S. *Venus*	16 01	85 51	...	NNE	4	Cloudy 4 P.M. passing showers.
S.S. *Hambleton*	16 11	86 04	...	Var.	2	
S.S. *Ethiopia*	16 19	93 15	·775	E	3	Cloudy.
S.S. *Matiana*	Rangoon.		·765	...	...	Midnight passing showers.
S.S. *Chanda*	17 53	91 22	·810	NW	4	Moderate sea and fine.
S.S. *Maharani*	19 40	92 11	·889	Calm.	0	Calm sea, clear.
S.S. *Clan Maclachlan.*	20 44	87 44	·776	NNE	4	Cloudy.
S.S. *Aries*	Eastern channel L. V.*		·774	NNE	5	Clear.
S.S. *Karagola*	Saugor Island.		·828	E	2	Fine.
S.S. *Madura*	Hooghly River.		·773	NW	2	Cloudy.
S.S. *Kasara*	Chittagong.		·757	...	...	4 A.M. fine.

* Noon position.

The above data show that ordinary north-east monsoon winds prevailed over the north-west and west of the Bay, but that in the south-west of the Bay, the wind was between north-west and south-west, and that to the north of the Andamans there were indications of a cyclonic circulation. The force of the wind was light though slightly above the normal. The weather was cloudy over the Bay. The following gives 8 A.M. data for the land and insular observatories in 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.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches	
Port Blair	29·780	—·059	—·059	W	15	9	3·34	Raining.
Cocos Island *	·801	—·052	...	NE	4	6	0·24	
Mergui	·791	—·006	—·060	Calm	2	4	0·60	
Moulmein	·782	—·016	—·067	...	1	6	...	
Tavoy	·776	—·035	—·099?	Calm	0	10	0·67	Showery.
Rangoon	·779	—·007	—·054	NE	3	2	2·04	Showery.
Diamond Island.	·782	—·022	—·043	ENE	3	7	0·02	Distant lightning.
Bassein	·788	—·003	—·040	Calm	3	5	0·19	
Akyab	·780	—·043	—·037	NE	2	4	...	
Chittagong	·799	—·037	—·020	NNE	3	4	...	
Barisal	·817	—·030	+·034	NNW	2	2	...	
Calcutta	·841	—·010	+·048	N	3	10	...	
Saugor Island.	·825	—·015	+·034	N	9	7	...	
Balasore	·848	—·014	+·062	NNW	2	3	...	
False Point	·832	—·006	+·047	NNW	8	8	...	
Cuttack	·837	—·015	+·048	Calm	1	4	0·03	
Puri	·827	—·019	...	NNW	?	4	...	Sea smooth.
Gopalpur	·834	—·009	+·070	NNW	6	0	0·50	
Waltair	·822	—·011	+·043	NE	8	3	...	Sea smooth.

* 10 A.M. observations.

The preceding data show that the sky was cloudy to overcast over Burma and the north of the Bay, and that showers were reported over Burma.

October 2nd.—On this day pressure was steady in Burma, but was decreasing over India. Pressure was below the normal over Burma, North-East India, and the south of the Peninsula and higher than usual elsewhere. The following gives the 8 A.M. marine observations 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. *Fultala*	8 56	96 52	29·742	SW	4	Overcast, noon heavy rain squalls.
S.S. *Unity*	10 48	87 14	...	SW	3	
S.S. *City of Perth.*	11 23	84 10	·735	NW	4	Heavy constant rain.
S.S. *Hambleton*	12 58	84 42	...	NW	2	Cloudy.
S.S. *Borneo*	14 54	85 33	·735	NE	4	Heavy rain. squalls.
S.S. *Matiana*	15 45	93 58	·762	NE	4	Showery.
S.S. *Maharaja*	15 53	97 07	·685	...	...	Clear.
S.S. *Maharani*	16 27	93 46	·861	SE	4	Cloudy, 4 A.M. squally.
S.S. *Ethiopia*	Rangoon		·775	...	...	4 A.M. cloudy.
S.S. *Kenley*	18 00	86 31	...	NE	2	Overcast 4 A.M. heavy rain squalls.
S.S. *Madura*	18 43	90 36	·677	NE	2	Cloudy 4 P.M., frequent squalls and occasional showers.
S.S. *Venus*	18 57	87 12	...	NE	3	Overcast, noon rainy.
S.S. *Itenda*	20 26	87 56*	·776	NNE	2	
S.S. *Karagola*	21 28	90 42	·776	NE	2	Cloudy.
S.S. *Kasara*	21 32	91 07	·670	Calm	0	Fine, 8 P.M. passing rain squalls.
S.S. *Chanda*	21 40	88 26	·780	N	2	Fine.
S.S. *Rajpootana*	Calcutta		·728	—	...	Noon cloudy.

* Noon position.

The preceding data show that the low pressure area which lay to the north of the Andamans on the 1st, had moved north-westward towards the centre of the Bay. The wind force over the Bay had diminished, and averaged 2·6 for the whole Bay, but the cyclonic circulation had extended and the winds, all over the surface of the Bay, were under the influence of the low pressure area. The weather was cloudy and showery over the north and east of the Bay and the *City of Perth* in Lat. 11° 23′ N. and Long. 84° 10′ E. reported heavy constant rain.

The following gives the shore observations for 8 A.M. on this day :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inches.	
Tavoy	29·781	+·005	−·090	Calm	2	8	0·9	Showery.
Moulmein	·788	+·006	−·064	...	2	4	...	
Rangoon	·792	+·013	−·053	ESE	4	6	0·17	Thunder-storm.
Diamond Island.	·786	+·004	−·039	E	19	8	0·08	Sea slight.
Bassein	·790	+·002	−·039	E	5	8	0·08	
Akyab	·783	+·003	−·036	ENE	2	6	0·22	Distant lightning
Chittagong	·778	−·021	−·040	NW	3	4	0·36	Ditto.
Barisal	·789	−·028	+·003	SW	1	7	0·95	
Calcutta	·805	−·036	+·009	N	3	10	0·09	
Saugor Island	·788	−·037	−·005	NNW	9	8	0·61	Sea smooth.
Balasore	·823	−·025	+·035	NNE	3	4	...	
False Point	·803	−·029	+·014	N	8	9	1·10	Thunder-storm.
Cuttack	·822	−·015	+·030	Calm	2	8	...	
Puri	·824	−·003	...	NW	7	10	0·03	
Gopalpur	·826	−·008	+·056	NNW	9	8	0·65	Nor' wester with rain.
Waltair	·810	−·012	+·028	E	8	10	...	Distant lightning.
Cocanada	·793	−·032	+·009	NNW	5	7	...	
Masulipatam	·809	−·042	+·013	NW	3	8	...	

Rain had become lighter, but the winds had strengthened considerably at Diamond Island and Saugor Island and the barometer was falling around the north-west angle of the Bay, though elsewhere the changes were unimportant. The position of the centre was apparently in Lat. 16° N. and Long. 89° 40′ E.

October 3rd.—The changes around the Bay were generally moderate to slight, the storm had apparently continued to move slowly north-westward or west-north-westward, and the changes were such as ordinarily accompany the approach of a slight or moderate cyclonic

storm towards the north-west coast of the Bay. The following gives 8 A.M. 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. *Upada* .	9 23	96 31	29·713	SW	4	8 P.M. frequent squalls.
S.S. *Hambleton*	10 11	83 11	...	WNW	4	
S.S. *Shahjehan*	Port	Blair.	·703	...	...	Midnight heavy rain squalls.
S.S. *Fultala* .	12 22	95 09	·670	WSW	6	Hard rain squalls.
S.S. *Unity* .	12 37	90 00	...	WSW	3	
S.S. *City of Perth.*	15 01	85 36	·695	NNE	5	Heavy rain.
S.S. *Maharani*.	15 32	95 30	·841	Var.	4	Overcast 4 A.M. squally with rain.
S.S. *Madura* .	15 39	94 08	·708	ESE	6	4 P.M. frequent squalls and light rain.
S.S. *Maharaja* .	16 16	93 25	·651	E	3	Smooth sea, clear.
S.S. *Itenda* .	17 15	86 34	·682	ESE	2	
S.S. *Matiana* .	19 03	90 02	·728	SE	2	Fine.
S.S. *Borneo* .	19 09	87 20	·727	NE	3	Passing rain squalls.
S.S. *Kohinur* .	19 28	85 59*	·741	N	1	
S.S. *Rajpootana*.	19 36	89 52	·711	E	5	Frequent rain squalls.
S.S. *Venus* .	Saugor	Island.	...	NE	3	Cloudy 4 P.M. heavy rain squalls.
S.S. *Kenley* .	21 58	87 42	...	NE	4	Cloudy 4 P.M. heavy rain.
S.S. *Kasara*. .	James and Mary.*		·642	N	2	Fine.

* Noon position.

The observations showed a large area of low pressure stretching across the centre of the Bay and the winds exhibited an irregular cyclonic circulation, westerly and west-south-westerly winds prevailing over the south of the Bay, and easterly and east-north-easterly winds over the north. The force had risen and averaged 3·3 which was 0·2 above the normal and 0·7 above the average of the preceding day. Hard rain squalls prevailed over the centre and east of the Bay and the strongest winds reported were west-south-westerly force 6 on board the *Fultala* in Lat. 12° 22′ N. and Long. 95° 9′ E. and east-south-easterly force 6 on board the *Madura* in Lat. 15° 39′ N. and Long. 94° 8′E. The following gives the shore observations for this date:—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inches.	
Port Blair .	29·751	—·037	—·091	WSW	8	9	1·67	
Cocos Island*	·777	—·022	...	SE	2	10	0·24	
Mergui .	·861	+·068	+·011	Calm	2	7	2·05	
Tavoy .	·811	+·030	—·057?	Calm	1	10	0·62	Showery.
Moulmein .	·770	—·018	—·082	...	2	2	...	
Rangoon .	·754	—·038	—·092	ENE	4	4	0·32	Showery.
Diamond Island.	·736	—·050	—·090	E	22	8	0·13	
Bassein .	·756	—·034	—·075	E	6	7	0·10	
Akyab .	·774	—·009	—·045	N	2	6	0·18	
Chittagong.	·796	+·018	—·023	NE	3	9	...	
Barisal .	·800	+·011	+·015	NW	2	7	...	
Calcutta .	·805	0	+·010	NW	3	9	0·10	
Saugor Island.	·788	0	—·005	NW	10	7	...	Dust haze.
Balasore .	·801	—·022	+·013	Calm	1	6	0·11	
False Point.	·775	—·028	—·015	NNE	8	8	...	
Cuttack .	·777	—·045	—·016	ENE	2	5	...	
Puri .	·774	—·050	...	NNE	?	9	...	Sea smooth.
Gopalpur .	·771	—·055	—·006	NNW	7	8	0·26	
Waltair .	·719	—·091	—·063	NE	11	8	...	Sea smooth.
Cocanada .	·728	—·065	—·061	NW	5	9	0·08	Sea smooth.
Masulipatam	·754	—·055	—·045	NNW	3	10	...	

* 10 A.M. observations.

The above table shows that pressure had increased briskly to slightly in Tenasserim and the Bay Islands, while it had decreased briskly on the Circars and Ganjam coasts. Over North-East India pressure had been steady. The wind was blowing a gale from east at Diamond Island and strongish winds were blowing at different points on the Bay coasts. There had been no general rain, but a few showers had been received over Burma, Bengal, and the south of the Peninsula.

The position of the centre of the disturbance, so far as can be ascertained, was in Lat. 17° 10′ N. and Long. 88°45′ E.

October 4th.—There had been no change of any importance during the previous 24 hours. The disturbance had apparently moved slowly north-westwards over the Bay and beyond a very slight barometric fall over the

Bay area there had been no alteration of importance The following table gives the marine data for 8 A.M. of 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. *Hermod*	8 07	84 19	...	SSW	2	
S.S. *Merkara*	8 13	81 35*	29·787	W	4	
S.S. *Foreric*	11 12	83 57	·710	W	3	Slight quarterly sea and cloudy.
S.S. *Upada*	12 28	95 02	·721	SSW	4	Rain squalls.
S.S. *Shahjehan*	13 38	94 21	·713	SW	5	Overcast, mid-night squally.
S.S. *Itenda*	13 39	85 00	·647	W	4	
S.S. *Unity*	14 17	93 34	...	SW	2	
S.S. *Fultala*	15 35	92 43	·640	SSW	4	Smooth sea and overcast.
S.S. *Rajpootana*	17 06	91 39	·545	ESE	5	4 A.M. heavy rain squalls.
S.S. *City of Perth.*	18 56	87 05	·755	E	5	Rough sea and squally.
S.S. *Vulcan*	19 05	87 44*	·765	E	2	
S.S. *Maharaja*	19 06	90 16	·623	NE by E	4	Rain squalls.
S.S. *Patna*	19 49	86 23*	·847	N	2	
S.S. *Karagola*	21 56	91 39	·745	...	...	Noon fine.

* Noon position.

The large area of low pressure noticed on the previous day continued to occupy a large part of the Bay. The whole area had, however, moved very slowly northward, but its intensity was unchanged. The winds had increased slightly in strength and averaged 3·5 for the whole Bay. The directions were not materially changed, except that the limit of the south-westerly winds had extended slightly northwards following the low pressure area. The weather was squally, rainy and cloudy all over the north and east of the Bay. The following gives the shore observations for this day :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Mergui	29·843	—·018	—·007	Calm	1	5	1·71	
Tavoy	·829	+·018	—·033	Calm	2	10	0·61	Showery.
Moulmein	·815	+·045	—·041	...	2	8	0·01	
Rangoon	·800	+·046	—·049	ESE	8	10	1·47	Showery.
Bassein	·765	+·009	—·070	Calm	3	8	0·10	
Diamond Island.	29·743	+·007	—·087	ESE	21	9	0·57	Drizzling.
Akyab	·755	—·019	—·067	N	2	6	...	
Chittagong	·768	—·028	—·051	NE	2	4	0·11	
Barisal	·785	—·015	—·001	NE	2	2	0·81	
Saugor Island	·775	—·013	—·020	NE	7	3	0·79	Showery.
Balasore	·796	—·005	+·006	NNE	4	5	0·11	
False Point	·758	—·017	—·034	NE	7	6	0·63	Do.
Cuttack	·762	—·015	—·032	ENE	3	5	...	
Puri	·756	—·018	...	NNE	?	4	0·30	
Gopalpur	·740	—·031	—·044	N	11	5	2·18	
Waltair	·726	+·007	—·062	NE	12	10	2·02	Sea smooth.
Cocanada	·724	—·004	—·073	NNW	7	10	0·08	
Masulipatam	·751	—·003	—·056	N	4	10	...	Distant lightning.

Pressure was practically unchanged, the only important alteration having been a slight fall at Gopalpur. The winds had changed to north-east at the head of the Bay and to east-south-east at Diamond Island. At the latter station the force was still strong to a gale. Scattered rain continued around the east and north coasts of the Bay. The storm's position was apparently in Lat. 18° 10′ N. and Long. 87° 45′ E.

October 5th.—There had again been very little change over the Bay area. Pressure had decreased slightly over Orissa and deltaic Bengal, but elsewhere the changes were unimportant. The following gives the marine observations 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. *Umona*	9 23	83 14	29·701	NW	2	Smooth sea and fine.
S.S. *Hermod*	9 59	87 14	...	SW	2	
S.S. *Itenda*	10 12	83 31	·749	SW	5	Moderate sea.
S.S. *Craftsman*	10 43	83 35	...	SW	4	Cloudy 8 P.M. showery.
S.S. *Armenia*	10 50	84 16	·878	SW	2	Fine.
S.S. *Foreric*	14 35	85 26	·630	WNW	4	Squally; 4 A.M. rainy.
S.S. *Upada*	15 11	92 56	·671	SSW	4	Overcast, 4 P.M. passing showers
S.S. *Rajpootana*	15 41	95 25	·621	SSE	5	Cloudy; 4 A.M. rain squalls.
S.S. *Purulia*	Moulmein		·819	...	...	Noon fine.

NAME OF VESSEL.	8 A.M. POSITION. Lat. N.	Long. E	Barometer as corrected by Calcutta Office.	WIND. Direction.	Force.	WEATHER.
	° ′	° ′	″			
S.S. *Vulcan* .	16 44	86 41	29·895	N	2	
S.S. *Ethiopia* .	Rangoon		·815	...	...	Midnight rain and wind squalls.
S.S. *Maharani*.	Ditto		·936	...	...	8 P.M. fine and clear.
S.S. *Shahjehan*	Ditto		·753	...	...	Fine.
S.S. *Fultala* .	18 52	89 48	·636	E	4	Rainy.
S.S. *Karagola* .	Akyab		·740	...	...	4 A.M. cloudy.
S.S. *Maharaja* .	Hooghly River		·689	...	...	4 A.M. overcast.
S.S. *City of Perth*.	Garder Reach*		·750	NNE	6	Cloudy.
S.S. *Malda* .	Calcutta		·716	...	...	Noon cloudy.

* Noon position.

The marine observations gave no indication of the presence of the storm, and light variable winds were reported over the centre of the Bay. The storm had hence probably concentrated during the preceding 24 hours over the north-west of the Bay whence no observations for this date were received. The following gives the shore observations :—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	WEATHER.
	″	″	″				Inch.	
Tavoy .	29·819	—·010	—·034	Calm	1	8	0·79	Showery.
Moulmein .	·814	—·001	—·043	...	2	4	0·14	
Rangoon .	·801	+·001	—·050	ESE	4	6	0·50	Ditto.
Bessein .	·788	+·023	—·051	E	6	4	0·23	
Diamond Island.	·770	+·027	—·059	S	23	6	0·55	Sea falling
Akyab .	·720	—·035	—·108	NE	3	7	...	Distant lightning.
Chittagong.	·751	—·017	—·073	ENE	3	3	0·02	Ditto.
Barisal .	·749	—·036	—·041	Calm	4	8		
Calcutta .	·755	—·044	—·046	N	4	6		
Saugor Island.	·728	—·047	—·072	NNE	10	9		
Balasore .	·766	—·030	—·028	NNW	4	7		
False Point	·721	—·037	—·076	N	9	10		
Cuttack .	·731	—·031	—·068	NNE	3	8		
Puri . .	·717	—·039	...	N	?	9	0·07	
Gopalpur .	·721	—·019	—·071	NNW	10	1	0·03	
Waltair .	·721	—·005	—·070	N	11	10	0·35	Sea slight.
Cocanada .	·710	—·014	—·089	NNW	8	9	0·64	Sea rough.
Masulipatam	·755	+·004	—·057	NNW	3	10	0·08	

The only important feature shown in the above table was the slight barometric fall in Orissa and deltaic Bengal. The rain had ceased over the north-west of the Bay, an additional argument in favour of the sudden concentration of the storm. The centre was approximately in Lat. 19° 05′ N. and Long. 86° 45′ E.

October 6th.—Important changes had occurred over the head of the Bay. The concentrated storm was approaching the Orissa coast where the barometer had fallen nearly 0·20″. Heavy rain had at the same time commenced in Orissa. The following gives the 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. *Hermod* .	12 00	90 12	...	SSW	2	
S. S. *Umona* .	13 21	84 48	29·670	NNW	5	4 A.M. squally with heavy rain.
S. S. *Vulcan* .	14 12	85 00	·715	SW	5	Moderate sea and cloudy.
S. S. *Kohinur* .	14 22	81 23*	·692	NW	2 to 3	
S. S. *Armenia* .	14 35	85 35	·778	SW	4	Showery.
S. S. *Craftsman*	15 00	85 34	...	SW	5	North-east swell and overcast.
S. S. *Purulia* .	15 40	94 38	·779	SW	2	Fine.
S. S. *Maharani*	15 44	94 28	·928	WSW	2	Swell and fine and clear.
S. S. *Foreric* .	16 18	86 45	·610	SW	6	Heavy sea; squally, 4 A.M. rainy.
S. S. *Ethiopia* .	16 41	92 59	·785	SSW	4	Moderate south-west swell and fine.
S. S. *Upada* .	17 59	90 55	·652	S	4	Moderate following sea and cloudy.
S. S. *Karagola* .	19 46	92 50	·761	SE	4	Fine.

* Noon position.

It will be noticed that the whole of the above data refer to the south and east of the Bay so that no information regarding the storm is to be gathered from them. The following are the shore observations for this day :—

STATION.	PRESSURE. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	WIND. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud	Rainfall.	WEATHER.
	″	″	″				Inch	
Moulmein .	29·833	+·019	—·026	SW	1	10	0·46	Drizzling.
Rangoon .	·839	+·038	—·013	Calm	4	8	...	
Diamond Island.	·830	+·060	—·004	SSW	13	7	...	Sea slight.

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Bassein .	29·844	+·056	0	SE	7	8	0·23	
Akyab .	·806	+·086	—·026	S	4	5	...	
Chittagong .	·799	+·048	—·029	NE	2	3	0·09	
Barisal .	·772	+·023	—·025	ESE	2	7	...	
Calcutta .	·755	0	—·052	NE	5	10	0·07	
Saugor Island.	·696	—·032	—·110	NE	12	10	0·84	
Balasore .	·698	—·068	—·103	NNE	7	9	0·94	
False Point.	·531?	—·190?	—·271?	ENE	16	10	1·61	Strong wind.
Cuttack .	·531?	—·200?	—·276?	NE	5	10	2·88	Raining.
Puri . .	·491	—·226	...	N	?	10	2·59	Raining.
Gopalpur .	·544	—·177	—·258	NNW	9	10	0·69	
Waltair .	·647	—·074	—·150	W	10	10	...	Sea slight.
Cocanada .	·668	—·042	—·133	W	4	10	...	Ditto.
Masulipatam	·743	—·012	—·072	WNW	6	10	...	

Pressure had decreased nearly 0·20″ at the Orissa stations, but the fall was sharply restricted to the immediate neighbourhood of the storm, the barometer having risen in other parts of the country. Strong cyclonic winds were reported in the storm area, and pressure was 0·27″ below the normal in Orissa.

The storm centre lay apparently close to Puri in Lat. 19° 50′N. and Long. 86°E. and the centre apparently crossed over Puri between noon and 2 P.M.

October 7th.—The storm apparently crossed the coast near Puri soon after noon on the 6th and advanced slowly north-westward. At 8 A.M. on the 7th the centre was apparently in Lat. 20° 40′ N. and Long. 84°40′ E. where pressure was above 0·27″ below the normal. The following gives the 8 A.M. observations 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Waltair .	29·609	—·038	—·191	W	8	10	...	Sea smooth.
Gopalpur .	·565	+·021	—·249	SW	38	5	6·32	Showery.
Puri . .	·632	+·141	...	SSE	?	7	1·02	

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Cuttack .	29·653	+·122	—·159	SSE	11	9	4·71	Showery.
False Point .	·694	+·163	—·115	SSE	29	9	0·52	Gale of wind.
Balasore .	·737	+·039	—·070	ESE	12	6	1·70	
Saugor Island	·746	+·050	—·066	SE	17	7	1·73	Showery.
Chaibassa .	·713	—·051	—·107	ESE	4	7	0·75	Showery.
Ranchi . .	·755	—·071	—·063	ENE	15	10	0·29	Showery.
Sambalpur .	·563	—·181	—·270	NE	18	10	0·26	
Raipur . .	·654	—·124	—·183	N	12	10	0·01	Drizzling.
Nagpur .	·740	—·092	—·100	NNW	7	8	...	
Seoni . .	·767	—·077	—·073	NNE	9	8	...	

Pressure had increased rapidly in Orissa and had fallen slightly to rapidly over the central parts of the country, but, as was noticed on the preceding day, the effects of the storm were confined to the storm area and outside that area the changes were slight. The winds were cyclonic around the centre and were strong on the Bay coast. The rainfall was heavy in Ganjam and Orissa as will be seen from the following data :—

District.	Station	Rainfall during 24 hours preceding 8 A.M. of 7th October 1900.
		Inches.
Ganjam	Udayagiri	10·90
Puri	Khurda	9·60
Cuttack	Banki	8·44
Ganjam	Rambha	8·10
Puri	Kanas	7·53
Ganjam	Russellkonda	7·22
	Aska	6·90
	Berhampur	6·88
	Chatrapur	6·79
	Ramagiri	6·60
	Purushottapur	6·36
	Gopalpur	6·32
	Balliguda	6·31
	Surada	5·60
	Ichchhpuran	5·10

October 8th.—The storm had advanced west by north

and the centre lay near Raipur in Lat. 21° 35′ N. and Long. 81° 55′ E.

The following gives 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Waltair	29·681	+·072	—·119	W	18	2	...	
Gopalpur	·679	+·114	—·145	S	28	4	...	Strong wind.
Puri	·712	+·080	...	SSW	?	4	0·04	
Cuttack	·711	+·058	—·105	S	4	8	0·17	Showery.
False Point.	·735	+·041	—·078	SSE	17	6	...	
Chaibassa	·700	—·013	—·130	SE	3	3	...	
Ranchi	·717	—·038	—·103	ESE	15	10	0·45	Showery.
Sambalpur	·623	+·060	—·212	SSE	14	10	0·31	Do.
Raipur	·587	—·067	—·258	W	1	10	5·85	Heavy rain.
Nagpur	·704	—·036	—·143	Calm	10	10	...	
Seoni	·699	—·068	—·151	NNE	9	10	...	
Jubbulpore.	·692	—·077	—·163	N	9	9	...	
Sutna	·736	—·074	—·109	NNW	5	8	0·82	Showery.
Daltonganj.	·681	—·071	...	NE	7	8	0·15	

Pressure had continued to increase over Orissa and Ganjam, but had decreased over other parts of the country. The change was largest over the east of the Central Provinces, and the storm centre lay near Raipur. The winds were cyclonic around the storm, but were not strong except at the Bay ports. Raipur and its neighbourhood had received heavy rain, but elsewhere the storm had occasioned very little precipitation. The following gives rainfall data :—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 8th October 1900.
		Inches.
Raipur	Raipur	5·85
Bilaspur	Mungeli	4·35
Raipur	Simga	4·25
Bilaspur	Pendra	3·57
	Bilaspur	3·49
	Janjgir	3·38
	Pandaria	3·23
	Korba	2·84
Raipur	Drug	2·34

October 9th.—The storm had recurved and had advanced in a north-north-east direction into Chota Nagpur, South Bihar and the adjacent districts of the North-Western Provinces. 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Chaibassa	29·702	+·002	—·141?	Calm	1	9	...	Drizzling.
Ranchi	·717	0	—·115	SSE	12	10	1·26	Showery.
Hazaribagh	·725	—·005	—·115	ESE	10	10	0·73	Raining.
Gaya	·716	—·020	—·119	NE	5	10	0·29	Showery.
Patna	·723	—·009	—·110	ENE	2	10	0·06	Do.
Arrah	·708	—·022	...	SSE	5	10	0·03	Drizzling.
Dehri	·693	—·032	—·139	ENE	9	10	1·10	Do.
Buxar	·727	—·023	—·103	ESE	7	10	0·73	Showery.
Daltonganj	·634	—·047	...	E	6	7	1·05	
Benares	·693	—·026	—·134	NE	4	10	5·47	Continuous rain.
Allahabad	·732	+·003	—·097	NNE	7	10	0·14	
Sutna	·748	+·012	—·099	NE	4	7	0·84	
Jubbulpore.	·753	+·061	—·111	NW	5	2	0·67	Showery.
Raipur	·742	+·155	—·102	SW	10	0	0·28	
Sambalpur	·719	+·096	—·125	WSW	7	10	0·42	Do.

The barometer had risen briskly to rapidly over the Central Provinces and adjacent districts, while it had fallen slightly over Bihar and that region. The storm's centre lay apparently near Daltonganj in Lat. 24° N. and Long. 84° E. where pressure was probably about 0·20″ below the normal. The storm was hence filling up. Moderately strong cyclonic winds prevailed around the storm, and heavy rain was reported from the storm's neighbourhood.

This is shown below :—

Province or Division.	District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 9th October 1900.
			Inches.
North-Western Provinces, East.	Benares	Chandauli	9·11
	Mirzapur	Chakia	7·82
	Mirzapur	Robertsganj	7·34
	Ghazipur	Zamania	6·60
	Mirzapur	Chunar	6·15
	Ghazipur	Ghazipur	6·12
	Benares	Benares	5·56
	Ghazipur	Sayyidpur Bhitari	5·06

Province or Division.	District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 9th October 1900.
			Inches.
Bihar	Shahabad	Bhabhua	5·61
	Do.	Monaharpur	4·20
	Monghyr	Jamalpur	3·76
	Sonthal Parganas	Rajmahal	3·24
	Do. do.	Barharwa	3·10
	Shahabad	Khiri	3·05
Chota Nagpur	Ranchi	Palkot	2·08
	Angul	Pal Lahara	2·08

October 10th.—The cyclonic storm had travelled nearly due eastward and the centre lay apparently between Hazaribagh and Gaya in Lat. 24° N. and Long. 85° 10′ E. The following gives data for the storm area :—

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"				Inches	
Chapra	29·727	+·012	...	ESE	3	10	0·44	Drizzling.
Patna	·744	+·021	—·098	ESE	14	10	0·37	Showery.
Muzaffarpur	·774	+·017	...	Calm	2	10	1·15	
Arrah	·706	—·002	...	E	5	10	0·77	Drizzling.
Buxar	·735	+·008	...	E	7	10	0·84	
Dehri	·708	+·015	—·130	W	12	10	2·00	Do.
Gaya	·721	+·005	—·120	NE	7	10	1·12	Continuous rain.
Daltonganj	·737	+·103	...	SW	6	8	0·28	
Naya Dumka	·751	—·011	—·078	SSE	2	5	0·62	
Hazaribagh	...	...	...	WSW	...	10	1·48	Showery.
Raniganj	·756	+·006	...	SW	2	4	0·14	
Bankura	·725	—·001	...	Calm	6	1	...	
Ranchi	·749	+·032	—·085	SSW	10	7	0·16	Showery.
Chaibassa	·746	+·044	—·094	WSW	0	3	0·42	Do.

The greatest deficiency of pressure was 0·13″ near Gaya and Dehri so that the storm had continued to fill up and had become a shallow unimportant disturbance. The winds remained cyclonic around the storm and a certain amount of rain continued to fall over West Bengal. The following gives the principal amounts.

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 10th October 1900.
		Inches.
Shahabad	Bassowan	6·35
Bhagalpur	Bhagalpur	5·09
Do.	Banka	3·34
Monghyr	Monghyr	3·30
Do.	Khargpur	3·18
Sonthal Parganas	Godda	3·09
Do. do.	Mohagama	3·09
Shahabad	Khiri	3·07
Monghyr	Shaikhpura	2·85
Bhagalpur	Colgong	2·68
Gaya	Aurangabad	2·58
Champaran	Bettiah	2·58
Sonthal Parganas	Deoghur	2·36
Monghyr	Begusarai	2·20
Purnea	Kishanganj	2·20
Shahabad	Bhabhua	2·18
Do.	Monaharpur	2·16
Purnea	Kaliaganj	2·10
Sonthal Parganas	Sarwan	2·08
Monghyr	Chakai Bamda	2·02

October 11th.—On this day a shallow low pressure area within which the barometer read about the normal lay over Lower Bengal and was apparently the continuation of the depression which had been traced from the head of the Bay. Rain continued to fall lightly over Bengal, but the winds were light and during the day the storm finally disappeared. The centre on the morning of the 11th was apparently in Lat. 23° N. and Long. 88° E.

The following gives data of the position and movement of the storm :—

DATE.	POSITION OF CENTRE AT 8 A.M.		Distance travelled during previous 24 hours.	Average hourly rate of motion in miles.
	Lat. N.	Long. E.		
	° ′	° ′	Miles.	Miles.
2nd October . . .	16 0	89 40		
3rd " . . .	17 10	88 45	100	4
4th " . . .	18 10	87 45	100	4
5th " . . .	19 05	86 45	100	4
6th " . . .	19 50	86 0	80	3
7th " . . .	20 40	84 40	110	4½
8th " . . .	21 35	81 55	200	8
9th " . . .	24 0	84 0	222	9
10th " . . .	24 0	85 10	80	3
11th " . . .	23 0	88 0	202	8

Small storm of the 2nd to the 5th October :—On the 2nd pressure was giving way slowly over North-West India and a shallow low pressure area was shown over the Punjab and Upper Sind. The following gives data :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"					
Jacobabad .	29·833	—·045	+·059	Calm	1	0	...	
Mooltan .	·838	—·023	+·047	SW	1	0	...	
Dera Ismail Khan.	·841	—·034	+·046	Calm	1	0	...	
Khushab .	·846	—·037	+·083	Calm	2	0	...	
Lahore .	·859	—·032	+·066	Calm	1	0	...	
Montgomery	·842	—·024	+·058	S	6	0	...	
Rawalpindi.	·883	—·047	+·044	Calm	1	0	...	
Sialkot .	·857	—·034	+·058	WNW	2	0	...	

The preceding data show that pressure was above the normal within the storm area and that the disturbance was slight and unimportant.

October 3rd.—There had been no important change. The following gives data for the depression area for this day :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"					
Jacobabad .	29·776	—·057	+·001	Calm	0	0	...	
Mooltan	·756	—·082	—·034	SSE	1	0	...	
Dera Ismail Khan.	·778	—·063	—·018	NE	1	0	...	
Khushab .	·797	—·049	+·026?	ENE	4	0	...	
Sialkot .	·800	—·057	+·004	WNW	2	0	...	
Lahore	·799	—·060	+·003	S	0	0	...	
Ludhiana .	·796	—·064	—·013	Calm	2	0	...	
Montgomery	·788	—·054	+·005	SSE	6	0	...	
Sirsa . .	·777	—·082	—·019	SE	0	0	...	
Patiala	·812	—·065	...	Calm	2	0	...	

Pressure had decreased briskly over the Punjab and Sind and had become normal or slightly in defect of the normal in the area of disturbance, but the winds were light and the depression was practically unchanged.

October 4th.—A further brisk fall of the barometer had occurred over the Central Punjab. The following gives 8 A.M. data for the storm area :—

STATION.	PRESSURE.			WIND.		Cloud.	Rainfall.	WEATHER.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	"	"	"					
Mooltan .	29·711	—·045	—·091	SW	1	0	...	
D. I. Khan.	·723	—·055	—·077	NNE	2	0	...	
Khushab .	·723	—·074	—·052	NE	11	0	...	
Sailkot .	·765	—·035	—·036	ENE	5	5	...	
Lahore .	·738	—·061	—·058	SSW	3	2	...	
Montgomery	·691	—·097	—·097	S	12	0	...	
Sirsa . .	·735	—·042	—·069	SE	4	0	...	
Ludhiana .	·798	+·002	—·015	Calm	1	0		
Patiala .	·825	+·013	...	Calm	1	0	...	

The preceding data show a brisk fall of the barometer over the Central Punjab, but particularly at Montgomery. Pressure was nearly 0·10″ below the normal at Montgomery and Mooltan and a small centre had been developed close to the former station. Strongish winds were reported around the centre and the weather became unsettled on the

northern side of the centre where easterly winds were blowing.

October 5th.—On this day pressure was recovering and the disturbance had almost disappeared. The following gives data 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Mooltan .	29·851	+·140	+·046	SW	1	0	...	
D. I. Khan.	·881	+·158	+·066	Calm	6	0	...	Dust haze
Rawalpindi	·912	+·105	+·045	Calm	2	0	0·34	Thunder-storm.
Khushab .	·845	+·122	+·062	NNW	17	0	...	Gale of wind.
Sialkot .	·836	+·071	+·028	NE	6	0	...	
Lahore .	·812	+·074	+·001	E	5	0	...	Dust haze
Montgomery	·820	+·129	+·013	NNW	7	0	...	
Ludhiana .	·810	+·012	—·004	S	1	2	...	
Sirsa . .	·832	+·097	+·024	SSE	5	0	...	
Srinagar .	...	+·167	+·122	WSW	8	10	0·98	Showery.
Dras . .	...	+·014	...	Calm	2	10	0·35	Snow-storm.
Skardu .	...	+·042	...	WSW	4	7	0·11	
Gulmarg .	...	+·076	...	NE	4	10	1·68	Snowing.
Murree .	...	+·046	+·026	SE	11	0	0·08	Thunder-storm.

It will be seen from the above that pressure had increased more than 0·10″ over a large part of the Punjab and was once more above the normal. The depression had almost filled up, but was still present lying between Montgomery, Lahore, Sirsa and Ludhiana. Rain and snow had occurred over the Kashmir Himalayas and a thunderstorm had given rain to Rawalpindi. Between the 15th and the 19th pressure was low over the south of the Bay and showers were of daily occurrence over the south of the Peninsula. On the 19th a change commenced. The barometer fell slightly to briskly over Burma and the east of the Bay, the area of lowest pressure was transferred eastward and by the 21st rain had ceased over the Peninsula.

Cyclonic storm of the 20th to 27th:—On the 19th the barometer fell briskly over the Eastern Peninsula and on the 20th an area of low pressure was established over that area with pressure about 0·05″ below the normal.

October 20th.—The low pressure area over Tenasserim and Lower Burma had drawn the wind into north or north-north-west over the Bay. This is shown below :—

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. *Foreric* . .	8 02	82 30	29·897	WNW	2	Heavy south swell.
S. S. *Saint Irene* .	9 00	82 50	·915	NE	4	
S. S. *Shahjehan* .	13 24	94 12	·783	NNW	4	Fine, 4 P.M. passing squalls.
S. S. *Comeric* .	15 05	85 20	·871	NNE	2	Smooth sea and fine.
S. S. *Maharaja* .	15 48	94 7	·795	N	5	Fine.
S. S. *Chanda* .	15 49	94 21	·820	NE	2	Smooth sea and fine.
S. S. *Ethiopia* .	16 16	93 21	·822	NW	4	Moderate sea and fine.
S. S. *Katoria* .	16 19	90 36	·756	NNW	4	Ditto.
S. S. *Maharani* .	16 47	92 42	·944	NE	2	Fine.
S. S. *Ockenfels* .	Rangoon.		·806	...	...	
S. S. *Inchmaree* .	16 50	86 37	·864	NNE	3	Smooth sea and fine.
S. S. *Pongola* .	16 56	84 07	·987	NNW	2	Fine.
S. S. *Nairung* .	18 32	89 49	·852	NNW	4	Fine.
S. S. *Commilla* .	19 00	93 50	·786	E	2	Smooth sea and fine.
S. S. *Africa* . .	19 2	90 25	·865	NE	2	Fine.
S. S. *Asia* . .	19 57	87 48	·935	NNE	1 to 0	
S. S. *Rudesheimer*.	20 36	87 32	·888	N	2 to 3	

The preceding data show that the wind was north-north-easterly over the west of the Bay and northerly to north-north-westerly in the centre and east. The force was light to fresh and the mean force of the whole Bay 2·8, while the weather was fine.

The following gives the land observations for the Bay Islands and the Burma ports :—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"					
Port Blair	29·855	—·012	—·003	NNE	6	7	...	
Cocos Island	·900	—·005	—	N	4	4	...	
Mergui .	·841	+·004	—·018	Calm	1	4	...	
Tavoy .	·827	—·005	—·056	Calm	1	0	...	
Moulmein .	·837	+·019	—·048	WSW	1	4	...	
Rangoon .	·833	+·009	—·046	NNW	4	7	...	
Diamond Island.	·854	+·007	—·013	NNW	14	4	...	
Bassein .	·855	+·012	—·018	NW	6	4	...	
Akyab .	·870	—·004	—·007	N	2	1	...	

The wind was strong from north-west at Diamond Island and Bassein and the weather was cloudy.

October 21st.—The low pressure area, over the Eastern Peninsula on the 20th, had advanced out into the Andaman Sea and the east of the Bay. The following gives the marine observations of 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. *Kerbela*	9 16	82 20	29·922	N	2	Head sea and fine.
S.S. *Logician*	11 32	84 07	...	NNE	3	Fine.
S.S. *Hermod*	14 53	94 05*	...	SW	2	
S.S. *Commilla*	15 41	94 29	·832	NE	4	Do.
S.S. *Maharani*	15 42	95 50	·945	NE	2	Do.
S.S *Shahjehan*	15 56	96 00	·903	N	3	Do.
S.S. *Africa*	16 06	93 24	·891	N	2	Do.
S.S. *Ockenfels*	16 40	92 45	·866	NE	2 to 3	
S.S. *Katoria*	17 03	86 52	·827	NNW	2	Smooth sea and fine.
S.S. *Comeric*	18 42	87 09	·911	NNE	1	Do.
S.S. *Maharaja*	19 18	92 38	·859	N by E	3	Fine.
S.S. *Ethiopia*	19 23	89 41	·892	NW	2	Do.
S.S. *Dido*	19 30	87 34*	...	W	1	
S.S. *Pongola*	19 41	86 20	·952	NNE	2	Do.
S.S. *Kasara*	Akyab		·899	...	...	8 P.M. fine.
S.S. *Malda*	Calcutta		·926	...	...	Noon fine.
S.S. *Karagola*	Calcutta		·931	...	...	Do.

* Noon position.

The winds had shifted to north-east off the Burma Coast, but they were still light and averaged only 2·5 for the whole Bay. The weather remained fine.

The shore observations for this day around the Bay were as follows:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	″	″	″				Inch.	
Mergui	29·903	+·062	+·045	Calm	2	3	...	
Tavoy	·901	+·074	+·017	Calm	1	0	...	
Moulmein	·924	+·087	+·035	ENE	2	6	·024	
Rangoon	·922	+·089	+·040	ENE	4	8	...	
Diamond-Island	·909	+·055	+·042	ENE	8	3	...	
Bassein	·922	+·067	+·047	NE	3	3	...	
Akyab	·943	+·073	+·063	N	3	1	...	
Chittagong	·958	+·072	+·071	ENE	3	1	...	
Barisal	·959	+·070	+·083	NE	2	2	...	
Calcutta	·955	+·046	+·067	ENE	3	0	...	
Saugor Island	·934	+·042	+·050	NW	5	6	...	Sea smooth.
Balasore	·959	+·009	+·079	NNW	1	0	...	
False Point	·944	+·040	+·061	WNW	4	4	...	
Cuttack	·951	+·040	+·065	Calm	1	3	...	
Puri	·950	+·043	...	N	8	0	...	
Gopalpur	·944	+·038	+·084	NNW	9	0	...	
Waltair	·945	+·025	+·075	Calm	6	6	...	Do.
Cocanada	·949	+·022	+·107	Calm	4	4	...	Sea slight.
Mosulipatam	·961	+·015	+·097	NNW	3	7	...	
Nellore	·959	+·022	+·121	Calm	2	5	...	
Madras	·959	+·018	+·090	WNW	4	4	...	Do.
Cuddalore	·959	+·029	+·117	WNW	2	3	...	

The winds showed a more decided cyclonic circulation over the Bay, but they were nowhere strong and the weather was generally fine. The centre apparently lay in Lat. 13° N. and Long. 93° 40′ E.

October 22nd.—The cyclonic storm had passed through the Andaman Sea and passed out into the east of the Bay, travelling eastward. There was very little marine information for this day and only one or two of the ships reported unsettled weather. This is shown below:—

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′	″			
S.S. *Australia*	8 27	82 38	...	NNE	4	Considerable north-west sea and squally with rain.
S.S. *Kerbela*	12 37	82 17	29·912	NE by N	4	Moderate sea and cloudy.
S.S. *Hermod*	12 55	91 22	...	SW	2	
S.S. *Unity*	14 04	93 03*	...	NE	2	

* Noon position.

Name of Vessel.	8 A.M. Position. Lat. N.	Long. E.	Barometer as corrected by Calcutta Office.	Wind. Direction.	Force.	Weather.
	° ′	° ′				
S.S. *Logician*	15 36	85 43	...	NNE	3	Fine.
S.S. *Africa*	16 10	96 00	29·891	E	4	Fine, 4 A.M. squally.
S.S. *Madura*	Rangoon		·924	...	...	4 P.M. fine.
S.S. *Shahjehan*	Rangoon		·923	...	...	Do.
S.S. *Dido*	17 03	86 28	...	NE	2	4 P.M. lightning to east and squally appearance.
S.S. *Katoria*	Bimlipatam		·899	...	...	4 A.M. fine.
S.S. *Malda*	18 50	91 24	·940	NNE	4	Smooth sea and fine, 8 P.M. cloudy.
S.S. *Beswada*	19 20	87 27	30·087	SSW	1	Midnight lightning to south-south-west.
S.S. *Ockenfels*	19 50	89 33	29·896	NE	3	
S.S. *Karagola*	21 40	90 47	·921	...	...	
S.S. *Kasara*	21 50	91 40	·903	N	2	Fine.

Apparently the ship nearest to the storm was the *Hermod* in Lat. 12° 55′ N and Long. 91° 22′ E, and this ship reported a light south-west wind. Light north-east winds prevailed over the north and west of the Bay, and easterly winds off the Lower Burma coast. The average strength of the winds over the Bay was 2·9.

The following gives the shore observations around the Bay:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Wind. Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches	
Mergui	29·921	+·018	+·064	Calm	1	5	2·02	
Tavoy	·923	+·022	?	WSW	1	0	...	Distant lightning.
Moulmein	·960	+·036	+·068	SE	2	2	0·10	
Rangoon	·946	+·024	+·060	ESE	3	6	...	
Diamond Island.	·925	+·016	+·055	ENE	4	5	...	Distant lightning.
Akyab	·914	−·002	+·059	N	3	0	...	
Chittagong	·971	+·013	+·081	E	3	0	...	
Barisal	·967	+·008	+·091	NNW	1	0	...	
Calcutta	·979	+·024	+·090	ESE	2	2	...	
Saugor Island.	·969	+·035	+·084	NNW	6	3	...	Wind variable.
Balasore	985	+·026	+·105	Calm	1	2	...	
False Point	·982	+·038?	+·099	NW	3	3	...	
Cuttack	·991	+·040	+·103	Calm	1	2	...	
Puri	·983	+·033	...	N	6	0	...	Sea smooth.
Gopalpur	·979	+·035	+·117	NNW	7	0	...	
Waltair	·963	+·018	+·090	NE	7	4	...	Sea smooth.
Cocanada	·952	+·003	+·106	N	6	3	...	
Masulipatam	·969	+·008	+·101	NNE	3	3	...	Sea rough.
Nellore	·952	−·007	+·111	WNW	3	7	...	
Madras	·941	−·018	+·069	NW	3	7	...	Sea smooth.

These observations show a light cyclonic circulation of the winds around the Bay, but conditions were generally quiet and undisturbed. The centre of the storm apparently lay in Lat. 13° 35′ N and Long. 90° 15′ E.

October 23rd.—The barometer had fallen all over the Bay area. The change had been brisk to rapid in the west and slight in the east and the storm over the centre of the Bay had developed suddenly. The following gives the marine observations 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. *Australia*	10 19	83 58	...	NW	7	4 A.M. heavy rain squalls.
S.S. *Hermod*	10 51	88 29	...	E	2	...
S.S. *Unity*	12 42	90 42	...	Var.	3	...
S.S. *Dido*	14 10	85 02	...	ENE	5	Frequent squalls.
S.S. *Shahjehan*	14 19	94 47	29·883	E	4	Fine; 4 A.M. cloudy.
S.S. *Kerbela*	15 35	82 20	·822	NNE	5	Midnight heavy wind and rain squalls.
S.S. *Malda*	16 03	94 13	·881	ENE	4	Cloudy; 4 A.M. occasional rain squalls.
S.S. *Madura*	16 22	93 20	·873	NNW	5	Smooth sea and fine.
S.S. *Beswada*	16 24	86 09	·992	ESE	4	Heavy rain squalls.
S.S. *Chanda*	Rangoon		·878	...	...	4 P.M. fine.
S.S. *Logician*	19 44	87 30	...	NE	4	Fine.
S.S. *Maharaja*	Norman Point.		·910	...	...	4 P.M. fine.
S.S. *Kasara*	Chittagong		·900	...	...	Noon fine.
S.S. *Purulia*	Calcutta		967	...	...	Midnight cloudy.

Winds varied a good deal in direction, but were generally easterly near the Burma coast and across the centre of the sea and north-westerly off the Madras coast. The weather had become unsettled and the *Beswada* in Lat. 16°24′N and Long. 86°9′E and the *Australia* in Lat. 10°19′N and Long. 83°58′E reported heavy rain squalls. The centre of the storm on this day was apparently in Lat., 13°35′N and Long. 85°15′E. The following gives the shore observations for this day.

Station.	Pressure.			Wind.		Cloud.	Rainfall.	Weather.
	8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Change in past 24 hours.	Variation from normal.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
	″	″	″				Inch.	
Diamond Island.	29·917	—·008	+·048	ENE	10	7	0·92	Distant lightning.
Bassein .	·936	—·023	+·060	Calm	3	3	...	
Akyab .	·936	—·005	+·054	NE	2	4	...	
Chittagong	·952	—·019	+·062	NNE	3	9	...	
Barisal .	·955	—·012	+·081	NNW	2	4	...	
Calcutta .	·965	—·014	+·077	SSE	1	5	...	
Saugor Island.	·942	—·027	+·057	NNE	5	6	...	Sea smooth.
Balasore .	·961	—·024	+·081	NNW	1	2	...	
False Point	·938	—·044	+·055	NW	5	8	...	
Cuttack .	·939	—·052	+·051	Calm	1	5	...	
Puri . .	·942	—·041	...	N	9	4	...	
Gopalpur .	·919	—·061	+·056	NNW	10	1	...	
Waltair .	·900	—·063	+·026	NE	17	9	...	Sea smooth.
Cocanada .	·886	—·066	+·035	NNE	10	9	...	Sea rising.
Masulipatam	·885	—·084	+·015	NNE	7	7	...	
Nellore .	·860	—·092	+·015	WNW	4	9	...	
Madras .	·811	—·130	—·062	NW	9	10	...	Sea rough.
Cuddalore .	·801	—·125	—·047	WNW	4	10	0·04	
Negapatam	·828	—·100	—·039	W	14	10	0·82	Sea rough.
Trincomalee	·807	—·095	—·043	SW	3	7	0·55	
Colombo .	·826	—·079	—·056	NNW	8	4	...	Sea smooth.

The principal feature in the preceding observations is the brisk to rapid fall of the barometer along the west coast of the Bay. The winds were cyclonic all along the Madras Coast and were increasing in strength. The sea was rough at Madras and Negapatam, but the only rainfall was a shower at Cuddalore and Negapatam.

October 24th.—The storm was at 8 A.M. close to the Madras coast, the centre being about 80 miles to the north-east of Madras. The following gives the hourly observations recorded at Madras between 4 A.M. and 4 P.M. on this day:—

Date and Hour.	Station.	Pressure.	Wind.		Cloud.	Rainfall.	Weather.
		8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Direction at 8 A.M.	Average hourly velocity in miles during past 24 hours.			
		″				Inch.	
24th October. 4 A.M.	Madras .	29·540	Calm.	21	10	...	Gusty.
5 ,,	,, . .	·532	Calm.	25	10	0·01	Squally.
6 ,,	,, . .	·527	...	20	10	...	Do.
7 ,,	,, . .	·529	...	10	10	0·01	
8 ,,	,, . .	·554	NW	16	10	0·01	Drizzling.
9 ,,	,, . .	·600	W	18	10	0·11	Do.
10 ,,	,, . .	·642	SSW	16	10	0·15	Raining.
11 ,,	,, . .	·658	S	21	10	...	Drizzling.
12 Noon.	,, . .	·668	SW	11	10	...	Do.
1 P.M.	,, . .	·663	SSW	12	10	...	Do.
2 ,,	,, . .	·663	SW	11	10	...	Do.
3 ,,	,, . .	·657	SSW	12	10	0·01	Do.
4 ,,	,, . .	·680	S	8	10	0·01	Do.

There were no marine observations in the immediate neighbourhood of the storm. This is shown below:—

Name of Vessel.	8 A.M. Position.		Barometer as corrected by Calcutta Office.	Wind.		Weather.
	Lat. N.	Long. E.		Direction.	Force.	
	° ′	° ′	″			
S.S. *Stenda* .	10 32	83 52	29·776	SE	2	Moderate W swell; 4 A.M. overcast.
S.S. *Unity* .	10 58	88 11	...	SSW	3	
S.S. *Shahjehan* .	Port	Blair.	·923	...	...	4 A.M. cloudy.
S.S. *St. Dunstan*	11 58	84 41	831	SSW	3	Choppy following sea and heavy rain.
S.S. *Dido* . .	12 02	84 03	...	SSE	5	Rough sea.
S.S. *Beswada* .	13 31	84 57	·942	SSW	6	Light squalls.
S.S. *Australia* .	13 36	85 35	...	ESE	4	Rough sea, 4 P.M. passing showers.
S.S. *Purulia* .	19 24	89 55	·977	SE	4	S. swell and fine; noon passing rain squalls.
S.S. *Madura* .	19 44	89 38	·877	N	2	Fine; 4 P.M. thick rainy.
S.S. *Maharaja* .	20 46	88 52	·873	...	...	Stormy, noon thick heavy and continuous squalls.
S.S. *Kasara* .	Saugor Island.		·920	NE	6	Rainy.
S.S. *Karagola* .	Chittagong.		·914	...	...	Noon drizzling rain.

The above shows that to the south-east of the storm light to strong winds between south-south-west and south-south-east prevailed with a rough, choppy sea and heavy rain. There were no ships close to the centre of the storm. The following gives the shore observations for this day for the ports along the west coast of the Bay:—

Station.	Pressure. 8 A.M. reduced to sea level and constant gravity at Lat. 45°.	Pressure. Change in past 24 hours.	Pressure. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather.
	"	"	"				Inches.	
Saugor Island.	29·932	—·010	+·048	NNE	9	10	0·44	Drizzling.
Balasore	·927	—·034	+·049	NW	3	7	...	
False Point	·910	—·028	+·027	N	9	8	0·09	
Cuttack	·913	—·026	+·024	ENE	2	8	0·37	
Puri	·906	—·036	...	NE	9	8	0·54	
Gopalpur	·911	—·007	+·045?	NNW	13	8	0·48	Drizzling.
Waltair	·868	—·032	—·010	NE	25	10	2·10	Continuous rain.
Cocanada	·835	—·051	—·021	NE	31	10	0·88	Sea very rough.
Masulipatam	·826	—·059	—·046	NNE	12	10	0·88	Gale of wind.
Nellore	·723	—·137	—·129	NNW	11	10	3·75	Raining.
Madras	·554	—·257	—·318	NW	16	10	3·20	Sea very rough.
Cuddalore	·758	—·043	—·096	Calm	7	10	4·64	Continuous rain.
Negapatam	·781	—·047	—·084	WSW	9	8	1·37	
Trincomalee	·787	—·020	—·065	SW	10	3	0·27	
Colombo	·834	+·008	—·046	SSE	7	3	...	Sea smooth.

The barometer had fallen 0·25″ at Madras and rapidly at other stations on the Coromandel coast, where also the wind was strong to a gale with heavy continuous rain. The following gives the principal amounts recorded on this occasion:—

District.	Station.	Rainfall during 24 hours preceding 8 A.M. of 24th October 1900.
		Inches.
South Arcot	Merkanam	9·26
Chingleput	Cheyur	8·00
	Madurantakam	7·53
South Arcot	Tindivanam	7·31
Chingleput	Chingleput	6·25
North Arcot	Arkonam	5·59
South Arcot	Vanur	5·20
Chingleput	Conjeeveram	5·15
	Sriperumbudur	4·71
	Uttramerur	4·65
South Arcot	Cuddalore	4·64
Chingleput	Kovelong	4·61
North Arcot	Puttur	4·52
	Tiruttani	4·47
Nellore	Gudur	4·45
South Arcot	Gingee	4·34
Nellore	Venkatagiri	4·25
North Arcot	Tiruvettiyur	4·12
Chingleput	Poonamallee	4·12
South Arcot	Villupuram	4·04

The centre of the storm was apparently in Lat. 13°35′N and Long. 81°15′E and the barometer at Madras was 0·31″ below the normal.

October 25th.—The cyclonic storm crossed the Madras coast during the morning of the 24th advancing westward and at 8 A.M. on the 25th lay near Chitaldroog in about Lat. 14°N and Long. 77°E. The depression of the barometer at that station was only 0·10″ so that the storm had to a great extent filled up. The winds had consequently fallen lighter, as is shown by the following statement which gives the 8 A.M. observations 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. Variation from normal.	Wind. Direction at 8 A.M.	Wind. Average hourly velocity in miles during past 24 hours.	Cloud.	Rainfall.	Weather
	"	"	"				Inch.	
Chitaldroog	29·791	—·046	—·111	NNE	3	10	0·92	Gentle wind.
Cuddapah	·832	+·029	—·048	NNW	...	5	0·23	
Bellary	·819	—·045	—·085	NE	9	10	0·34	
Kurnool	·812	—·018	—·072	E	...	5	...	
Hassan	·845	—·033	...	WNW	2	10	0·86	
Mangalore	·812	—·003	—·063	ESE	1	10	...	
Bangalore	·842	—·026	—·075	S	9	10	1·00	
Mysore	·858	—·002	—·071	SW	7	10	0·68	
Cuddalore	·830	+·072	—·029	SSW	1	3	...	

The heaviest rainfall connected with the depression was to the north of the storm and the amounts were large along the Madras coast. This is shown below:—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 25th October 1900.
		Inches.
VIZAGAPATAM	Waltair	4·65
GODAVARI	Coringa	3·59
GANJAM	Surada	3·54
GODAVARI	Rajahmundry	3·30
Do.	Amalapuram	2·91
KISTNA	Masulipatam	2·72
GODAVARI	Kovvur	2·63
Do.	Cocanada	2·47
KISTNA	Avanigadda	2·41
Do.	Papatla	2·29
GODAVARI	Narsapuram	2·20
Do.	Alamur	2·15
VIZAGAPATAM	Bimlipatam	2·08

The small residual depression noticed over Chitaldroog on the morning of the 25th apparently passed out into the Arabian Sea on the evening of that day and slight cyclonic movements of the wind were shown over the west of the Arabian Sea on the 26th and 27th, but the weather remained quiet and never became even feebly unsettled. The following table gives data of the position and movement of the storm:—

DATE.	POSITION OF CENTRE AT 8 A.M.		Distance travelled during previous 24 hours.	Average hourly rate of motion in miles.
	Lat N.	Long. E.		
	° ′	° ′	miles.	
21st October	13 0	93 40	...	...
22nd "	13 35	90 15	230	10
23rd "	13 35	85 15	350	15
24th "	13 35	81 15	285	12
25th "	14 0	77 0	300	12½

During the remainder of the month the weather was quiet and settled and pressure exceeded the normal average in all parts of the Indian region.

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 on the Afghan mountains and in the Himalayas received up to date. The snowfall of the month under review, so far as the present records show, has been generally heavier than usual, and the accumulation is greater.

I.—AFGHAN MOUNTAIN DISTRICTS.

Kurram:—The Civil Surgeon, Kurram, reports as follows:—

October 5th, 6th — Snow fell on the higher peaks of the Sufed Koh down to about 14,000 feet.

October 11th, 15th, 18th, 19th, 20th, 21st, 24th — Snow fell all over the Sufed Koh and descended as low as about 10,000 feet, with a sprinkling as low as 7,000 feet on the 24th October.

October 29th — Snow fell on the higher peaks of the Sufed Koh down to 13,000 feet.

The snowfall on the Sufed Koh in the month of October was heavier than in previous years.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Kashmir*.—The meteorological observer at Leh reports that at the end of September and beginning of October frequent snow-storms occurred on the surrounding hills, the snowline descending to about 14,000 feet; most of this fresh snow, however, soon disappeared. During October the snowfall at the station of Leh was as follows:—

October 13th	½ inch.
" 14th	Sprinkle.
" 21st	Do.
" 22nd	¾ inch.

The snow at Leh soon melted and at the end of the month the snowline was about 14,000 feet.

The Drosh observer reports the following snowfalls during October.

October 4th.—Snow fell over the tops of the mountains down to 10,000 feet.

October 24th.—Slight snow fell on the tops of the mountains.

The Telegraph master at Minimarg sends the following account of the snowfall at that station on the 4th October. "There has been a heavy fall of snow in Minimarg and on the surrounding hills. I registered 1·65 inches

this morning at 8 A.M., and I am informed that there is from 2 to 3 feet of snow on the Burzil Pass."

The Meteorological Reporter, Kashmir State, reports that "on the 4th October fresh snow fell on the higher ranges of the mountains visible from the Srinagar observatory and on the 21st and 22nd another fall of snow occurred in the same regions.

(2) *Simla.*—The Deputy Conservator of Forests, Bashahr Division reports as follows:—

The following falls of snow occurred and the snowline descended to 9,000 feet.

October 1st	4 inches.
" 2nd	6 inches.
" 3rd	Do.
" 15th	Do.
" 21st	8 inches.
" 22nd	1 foot.
" 23rd	10 inches.
" 28th	1 foot.

The falls appear to have been local, extending along the higher ranges on both sides of the Sutlej in Bashahr.

III NORTH-WESTERN PROVINCES HIMALAYAS.

The Deputy Commissioner, Almora district, sends the following account of the snowfall in that district in October, snow fell as under.—

Malla Danpur.

12th October	1 foot.
16th to 19th "	1 foot.
26th "	1 foot.

Malla Johar.

15th October	4 feet.
17th Do.	3 feet.
27th Do.	4 feet.

Byans Chandans and Darma.

13th to 16th October	1 foot.
20th and 21st "	1 foot.
28th "	1 foot.

Snow accumulated to a depth of 3 feet on the peaks of Pindari, Kaphini and Kantela, while the depth of snow on Utadhura was 11 feet, on Ralam Dhura 6 feet and on Byans Chandans and Darma 3 feet.

The snowfall has been greater than in previous year.

The Deputy Commissioner of the Garhwal district reports as follows:—

Snow fell in the region of perpetual snow on the 13th 16th, 19th, 22nd, 26th and 28th October. The snowline descended to about 12,000 feet and the depth of snow varied from ½ to 3½ feet.

Snow has accumulated in the passes which were closed by the end of the month. The snowfall of October of the present year was greater than usual.

Summary of special Storm Reports.

Cyclonic storms are of occasional occurrence in October and are sometimes of exceptional severity. Two were generated or appeared over the Bay during the month under review, but both were of slight to moderate intensity. In addition thunderstorms are of occasional occurrence. The following gives the reports of the local storms received during the month:—

October 1st.—Thunderstorm with hail occurred near Ispahan between 1-30 P.M. and 4-5 P.M.

2nd.—Slight thunderstorm at Salem at 1-45 P.M.

4th.—A gale of wind with rain and snow was reported from Gulmarg on the 4th and 5th.

7th.—A storm with hard squalls and showers passed over Nagpur between 8 A.M. and 4 P.M.

16th.—A duststorm accompanied with lightning, thunder, hail and rain passed over Bushire between 2 A.M. and 11-30 A.M. The hailstones almost covered the ground and some were as large as a fowl's egg.

Severe thunderstorm at Salem between 5 P.M. and 6-10 P.M.

17th.—Duststorm at Jask between 10 A.M. and 4 P.M. The storm came up from north-west. Heavy rain fell for half-an-hour and the wind blew with the force of a hurricane.

18th.—Severe thunderstorm at Salem commenced at 2-45 P.M. and lasted about half-an-hour.

27th.—Severe thunderstorm at Salem between 8 P.M. and 9 P.M.

29th.—Slight thunderstorm at Salem between 10 P.M. and 11 P.M.

The meteorological observer at Jodhpur reports that a severe earthquake was felt at that station at ten minutes after noon on the 14th. The shock lasted for two minutes and apparently passed from west to east.

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

Arabian Sea.—During the first seventeen days of the month winds from between west and north obtained generally over the south-east of the Arabian Sea, but over the remainder of the sea the air motion was, as is ordi-

narily the case in October, exceedingly unsteady and variable. The mean force of the air movement during this period varied between 2·2 and 3·1 and exceeded the normal by small amounts on only three occasions, *viz.*, the 6th, 7th and 11th. Weather was generally fine and settled except in the region of westerly winds off the Malabar and Ceylon coasts, where it was more or less showery and squally from the 6th onwards. On the 18th ordinary winds of the winter or north-east monsoon set in over the north, centre and west and, extending southwards during the next two days, were established over the whole of the Arabian Sea save the south-east, where westerly winds held steadily. No significant change occurred in the air circulation during the rest of the month except in the neighbourhood of the Malabar and Konkan coasts, where winds were very unsteady from the 26th to the 29th and from between east and north on the 30th and 31st. The air movement during the whole of this period from the 18th to the 31st varied very irregularly and largely in strength, being stronger than usual on the 18th to the 20th, the 24th to the 27th and 30th and 31st and more or less below its normal strength on all other days. Weather was feebly disturbed throughout the period in the south-east and fine over the remainder of the sea.

On the mean of the month the air movement over the Arabian Sea was identical with the normal *viz.*, 2·7.

Bay of Bengal.—The distribution of pressure over this area differed considerably from the normal, the chief feature being the abnormal position of the area of minimum pressure which lay over Lower Burma, Tenasserim and the adjacent sea area during the greater part of the month instead of over the south-west of the Bay. Winds hence contained a strong easterly element over the east of the Bay and a northerly component in the north and west. Two storms formed over the Bay during the month. They were not, however, so severe as usually occur during the month of October and caused only moderate to strong winds. The air motion for all parts of the Bay hence averaged only 2·9 in force during the month or 0·2 below the normal. It was of normal strength on the 9th, 27th and 29th, slightly above its normal intensity on the 1st, the 3rd to the 7th, the 23rd and 24th and feebler than usual on all other days. It was lightest during the month on the 11th and 12th when its average strength was only 1·9 as compared with 3·1, its normal October intensity. Weather was more or less disturbed from the 1st to the 7th and again from the 22nd to the 25th *i.e.*, during the existence of the two storms of the month, but was fine generally on most other days.

Equatorial Belt.—So far as can be judged conditions were fairly normal over the western half of this area. The winds were slightly less easterly than usual at Zanzibar and the Seychelles and the rainfall of the month at these two stations was in considerable excess of the normal.

Temperature of the Air.

The mean temperature conditions of the month of October 1900 were abnormal in consequence of the late continuance of rain over Central and Upper India in September, and the early withdrawal of the monsoon from parts of the Peninsula,—more particularly the Bombay Deccan and Khandesh, where the rainfall of the preceding month had been very scanty.

The mean maximum or day temperature of the month was above the normal at nearly all stations in the Peninsula and North Bombay, as well as over Bengal, Assam, the Arakan coast, Lower Burma, and Tenasserim. In North-East India and Burma the variations from the normal were generally small, but exceeded 2° at the following stations :—

Station.	Mean maximum temperature.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	°	°	°
Silchar	91·5	88·8	+2·7
Dhubri	87·4	85·0	+2·4

Over the Peninsula, on the contrary, the variations were moderate to considerable and exceeded 2° at the following large number of stations :—

Station.	Mean maximum temperature.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	°	°	°
Bijapur	91·9	87·3	+4·6
Surat	96·5	92·3	+4·2
Sholapur	92·9	89·1	+3·8
Cuddapah	93·7	89·9	+3·8
Poona	91·0	87·5	+3·5
Belgaum	85·7	82·4	+3·3
Kurnool	92·5	89·3	+3·2
Malegaon	92·8	89·6	+3·2
Chitaldroog	86·7	84·0	+2·7
Ahmednagar	90·0	87·3	+2·7
Raichur	91·1	88·5	+2·6
Mangalore	87·3	85·1	+2·2
Ratnagiri	90·4	88·2	+2·2
Karwar	87·1	85·0	+2·1
Ahmedabad	97·5	95·4	+2·

The greatest excess was thus at the stations in the Bombay Deccan and locally at Surat.

Over the remainder of India, *viz.*, over the Punjab, Eastern Rajputana, the North-Western Provinces, the Central Provinces, Central India, West Bengal and the Circars, as well as over Central and Upper Burma the mean maximum temperature was below the average. The deficiency was more than 2° in two areas. Comparative data for the stations in these two areas are given below:—

Area.	Station.	Mean maximum temperature. Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
		°	°	°
First Area	Ludhiana	87·9	91·9	−4·0
	Delhi	88·2	91·8	−3·6
	Montgomery	93·4	96·6	−3·2
	Khushab	91·1	93·9	−2·8
	Sirsa	93·1	95·9	−2·8
	Roorkee	86·7	89·1	−2·4
	Lahore	90·9	93·2	−2·3
Second Area	Nowgong	87·0	90·4	−3·4
	Benares	87·0	89·9	−2·9
	Sutna	84·7	87·4	−2·7
	Gaya	86·7	89·3	−2·6
	Gorakhpur	86·1	88·7	−2·6
	Mainpuri	89·9	92·3	−2·4
	Raipur	85·5	87·8	−2·3

The weather was hot, relatively to the normal, between the 9th and 19th over the Peninsula. The following gives for each day during that period the two stations at which the maximum temperature was in greatest excess:—

Date.	Station.	Maximum temperature. Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
9th October	Madras	98·0	90·4	+7·6
	Bijapur	94·7	88·8	+5·9
10th "	Nellore	102·8	93·3	+9·5
	Tinnevelly	102·4	95·6	+6·8
11th "	Cuddapah	98·2	89·8	+8·4
	Sholapur	96·2	90·1	+6·1
12th "	Cuddapah	98·2	89·5	+8·7
	Kurnool	95·2	88·8	+6·4
13th October	Cuddapah	97·2	89·2	+8·0
	Ratnagiri	96·4	88·9	+7·5
14th "	Cuddapah	97·2	89·0	+8·2
	Kurnool	95·2	88·3	+6·9
15th "	Cuddapah	98·2	89·2	+9·0
	Kurnool	96·2	88·2	+8·0
16th "	Cuddapah	97·7	89·4	+8·3
	Bellary	95·7	89·6	+6·1
17th "	Ratnagiri	96·9	88·8	+8·1
	Cuddapah	96·2	89·4	+6·8
18th "	Karwar	92·3	85·2	+7·1
	Goa	92·0	85·0	+7·0
19th "	Ratnagiri	97·4	88·6	+8·8
	Kurnool	94·7	88·5	+6·2

The second hot period extended from the 22nd to the 29th when high day temperatures appeared over the central parts of the country and thence extended westward and southward over the Deccan, Khandesh and North Bombay. The following gives the largest variations of the day temperature from the normal on each day from the 22nd to the 29th in this area:—

Date.	Station.	Maximum temperature. Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
22nd October	Malegaon	97·4	89·2	+8·2
	Cuddapah	96·2	89·4	+6·8
23rd "	Bijapur	93·2	86·6	+6·6
	Raichur	94·1	88·1	+6·0
24th "	Karwar	91·8	85·6	+6·2
	Ahmedabad	98·2	92·6	+5·6
25th "	Do.	98·2	91·8	+6·4
	Kurrachee	98·2	92·5	+5·7
26th "	Ahmedabad	97·2	91·3	+5·9
	Kurrachee	98·4	92·7	+5·7
27th "	Do.	98·9	92·0	+6·9
	Madura	92·4	88·1	+4·3
28th "	Bijapur	93·2	86·1	+7·1
	Raichur	93·1	86·4	+6·7
29th "	Malegaon	93·9	88·2	+5·7
	Raichur	91·1	86·2	+4·9

It will be noticed that the above maxima are nowhere very high, and throughout the month any excess of the mean temperature was more often attributable to the excess of the night than to the excess of the day temperatures.

The following table gives the highest maximum temperature recorded during the month in each of the divisions of India, with the date of its occurrence and the highest temperature previously recorded at that station in October :—

PROVINCE OR DIVISION.	Station.	Highest maximum temperature recorded in October 1900.	Date on which recorded.	Highest maximum temperature recorded in October previous to 1900.	Year in which recorded.
		°		°	
BURMA . . .	Mandalay .	99·0	2nd October.	100·5	1892
ASSAM . . .	Silchar .	97·6	2nd	96·6	1887
BENGAL . . .	Comilla .	94·3	2nd	96·3	1898
ORISSA . . .	Puri . .	93·7	14th	96·7	1896, 1899
BIHAR . . .	Chapra .	92·3	7th	98·8	1896
CHOTA NAGPUR .	Chaibassa .	90·6	12th	95·9	1896
NORTH-WESTERN PROVINCES AND OUDH.	Agra . .	97·0	14th, 20th and 21st.	107·7	1877
PUNJAB . . .	Montgomery.	99·5	3rd and 4th.	107·4	1894
SIND . . .	Jacobabad .	106·4	4th	108·9	1899
RAJPUTANA . .	Pachpadra .	102·5	12th and 13th.	109·5	1895, 1896
GUJARAT . .	Ahmedabad .	100·3	9th	108·8	1899
CENTRAL INDIA .	Neemuch .	92·0	20th	102·5	1899
CENTRAL PROVINCES.	Khandwa .	95·7	20th and 22nd.	105·2	1899
BERAR . . .	Amraoti .	94·2	21st	102·8	1899
WEST COAST . .	Ratnagiri .	97·4	19th and 30th.	99·1	1888
BOMBAY DECCAN .	Sholapur .	96·2	11th	101·2	1896
MYSORE . .	Chitaldroog .	90·6	1st	91·1	1899
MADRAS COAST .	Nellore .	102·8	10th	101·9	1899
MADRAS DECCAN .	Cuddapah .	98·2	11th, 12th and 15th.	102·2	1896, 1899
SOUTH INDIA .	Tinnevelley .	102·4	1st and 10th.	102·4	1894, 1897, 1899.

The above shows that with few exceptions higher temperatures than those now recorded have been registered in previous years.

The mean minimum or night temperature of the month was higher than usual over Baluchistan and the Punjab on the one-hand and over the south of the Peninsula, the Bay area and Burma on the other. The excess was generally small and unimportant, but amounted to 2° or more at Khushab (+2°·0), Bassein (+2°·2), Diamond Island (+2°·9), and Mergui (+3·4°). The mean night temperature was below the normal over the remainder of India. The deficiency was most marked over the central parts or the country, but was more than 2° locally in the west of the North-Western Provinces and in North Bihar and North Bengal. The following gives comparative data for these three areas :—

PROVINCE.	STATION.	MEAN MINIMUM TEMPERATURE. Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
		°	°	°
CENTRAL PARTS OF INDIA.	Khandwa .	61·1	66·1	−5·0
	Akola . .	61·3	66·0	−4·7
	Hoshangabad .	62·6	67·0	−4·4
	Indore . .	59·7	63·7	−4·0
	Neemuch .	61·3	64·6	−3·3
	Malegaon .	62·1	65·3	−3·2
	Seoni . .	61·4	64·3	−2·9
	Jubbulpore .	61·6	64·2	−2·6
	Sambhar .	62·1	64·7	−2·6
	Poona . .	63·9	66·4	−2·5
	Ahmednagar .	62·1	64·4	−2·3
	Nagpur . .	66·2	68·3	−2·1
	Ajmer . .	60·9	63·0	−2·1
NORTH-WESTERN PROVINCES, WEST.	Mainpuri .	61·9	64·6	−2·7
	Nowgong .	62·5	65·1	−2·6
	Cawnpore .	63·8	66·2	−2·4
NORTH BIHAR AND NORTH BENGAL.	Purnea . .	69·0	71·2	−2·2
	Dinajpur .	70·0	72·1	−2·1

In Baluchistan, and at the stations of Srinagar and Darjeeling, the night temperature, on the mean of the month, was higher than usual, but at the remaining hill stations it was lower. The deficiency was greatest a

Pachmarhi. The following gives comparative data for the hill stations :—

Station.	Mean minimum temperature.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	°	°	°
Chaman	52·7	50·4	+2·3
Srinagar	41·9	39·8	+2·1
Quetta	40·9	39·2	+1·7
Darjeeling	49·7	49·0	+0·7
Pachmarhi	55·9	59·9	—4·0
Murree	51·5	53·1	—1·6
Leh	28·7	30·1	—1·4
Chakrata	49·3	50·7	—1·4
Simla	50·0	50·9	—0·9
Mussooree	50·9	51·6	—0·7
Ranikhet	53·8	54·1	—0·3
Cherat	57·2	57·3	—0·1
Mount Abu	64·1	64·2	—0·1
Wellington	54·9	55·0	—0·1

Very high minimum temperatures were recorded over Baluchistan and North-West India between the 20th and 21st and the 29th to 31st, and over the Deccan between the 24th and 29th. The following gives some noteworthy examples :—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
20th October	Montgomery	75·0	60·8	+14·2
	Khushab	72·9	59·9	+13·0
	Jacobabad	70·1	61·1	+ 9·0
	Quetta	43·9	37·2	+ 6·7
21st "	Lahore	65·9	57·8	+ 8·1
	Montgomery	68·0	60·2	+ 7·8
	Quetta	43·1	38·1	+ 5·0
24th "	Ahmednagar	71·4	63·6	+ 7·8
	Ahmedabad	73·6	69·7	+ 3·9
25th "	Sholapur	74·0	66·5	+ 7·5
	Ahmednagar	69·9	63·3	+ 6·6
26th October	Poona	74·9	64·0	+10·9
	Ahmednagar	71·4	63·2	+ 8·2
27th "	Do.	74·9	63·2	+11·7
	Sholapur	74·0	65·4	+ 8·6
28th "	Malegaon	70·2	60·7	+ 9·5
	Ahmednagar	71·4	62·9	+ 8·5
29th "	Do.	71·9	62·5	+ 9·4
	Poona	70·9	62·2	+ 8·7
	Umballa	61·5	53·3	+ 8·2
	Khushab	61·8	55·3	+ 6·5
	Chaman	53·1	47·6	+ 5·5
30th "	Quetta	49·9	34·1	+15·8
	Chaman	61·1	46·9	+14·2
	Jacobabad	65·1	55·8	+ 9·3
	Dera Ismail Khan	58·6	53·5	+ 5·1
31st "	Chaman	61·1	46·2	+14·9
	Quetta	42·4	33·7	+ 8·7
	Jacobabad	62·1	55·0	+ 7·1
	Mooltan	63·5	57·3	+ 6·2
	Khushab	60·7	54·8	+ 5·9

The mean temperature of the month was, with a few local exceptions, above the normal over the Peninsula and the greater part of Bengal, Assam and Burma. The excess was small, except at some stations in the interior of the Peninsula, and in Malabar. The following gives comparative data for these stations :—

Station.	Mean daily temperature.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	°	°	°
Bijapur	80·0	77·5	+2·5
Cuddapah	84·4	82·0	+2·2
Cochin	82·2	80·1	+2·1
Belgaum	75·7	73·7	+2·0

Over the Sind valley, as well as across the head of the Bay and thence into Central Burma, the mean temperature

was below the normal, but the variations were unimportant. Over the remainder of India the mean temperature of the month was below the normal. The deficiency was greatest and more than 2° in amount within two areas, one covering the east of the Punjab and the west of the North-Western Provinces and the second the north of the Central Provinces and the south of the Gangetic Plain. The following gives comparative data for the stations within these two areas :—

Area.	Station.	Mean daily temperature.		
		Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
		°	°	°
First Area	Ludhiana	75·3	77·8	—2·5
	Roorkee	73·1	75·3	—2·2
	Delhi	77·9	80·0	—2·1
Second Area	Nowgong	74·8	77·8	—3·0
	Hoshangabad	75·2	78·1	—2·9
	Benares	77·1	79·3	—2·2
	Jubbulpore	73·5	75·6	—2·1

At the hill stations the temperature, on the mean of the month, was below the normal except in Baluchistan and at the stations of Darjeeling and Wellington. The following gives data :—

Province.	Station.	Mean daily temperature.		
		Actual, October 1900.	Normal, October.	Variation of actual, from normal October 1900.
		°	°	°
Northern India Hill stations.	Murree	58·2	61·2	—3·0
	Leh	41·5	44·4	—2·9
	Cherat	66·4	68·0	—1·6
	Chakrata	57·5	58·4	—0·9
	Simla	56·0	56·8	—0·8
	Srinagar	54·0	54·6	—0·6
	Ranikhet	61·1	61·7	—0·6
	Mussooree	57·7	57·9	—0·2
	Darjeeling	55·8	54·9	+0·9
Central India Hill stations.	Pachmarhi	66·9	68·7	—1·8
	Mount Abu	71·0	71·6	—0·6
South India Hill station.	Wellington	62·6	61·7	+0·9
Baluchistan	Quetta	58·0	57·0	+1·0
	Chaman	65·7	64·5	+1·2

The chief features of the mean temperature conditions of the month were hence as follows :—

(1) Diminished temperature by night and day over the North-Western and Central Provinces.

(2) High night temperatures and low day temperatures over the Punjab.

(3) High day temperatures and low night temperatures over North-East India, as well as over the north of the Peninsula.

(4) High day and night temperatures over the south of the Peninsula and a large part of Burma.

The following gives temperature data of the month for the 56 meteorological divisions of the Empire :—

Province.	Division.	Actual temperature.					Variation from normal of month of.		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	88·4	75·0	81·7	13·4	20·2	+0·9	+2·0	—1·1
	Lower Burma (Deltaic)	87·7	77·4	82·6	10·2	15·7	+0·8	+1·8	—1·0
	Central do.	90·0	73·8	81·9	16·2	23·5	0	+0·2	—0·2
	Upper do.	89·7	73·3	81·5	16·4	27·8	—0·6	+0·7	—1·3
	Arakan	88·2	73·3	80·8	14·9	25·9	...	...	...
Bengal and Assam	Eastern Bengal	88·5	73·3	80·9	15·2	26·2	+1·1	—0·3	+1·4
	Assam (Surma)	91·5	71·7	81·6	19·8	34·2	+2·7	—0·7	+3·4
	Do. (Brahmaputra)	86·5	71·1	78·8	15·4	28·9	+1·5	—0·9	+2·4
	Deltaic Bengal	88·2	74·0	81·1	14·2	26·4	+1·2	—0·1	+1·3
	Central do.	88·0	72·3	80·2	15·7	26·8	+0·6	—0·3	+0·9
	North do.	87·9	69·4	78·7	18·5	31·5	+0·3	—1·1	+1·4
	Bengal Hills	64·6	45·1	54·8	19·4	32·8	+1·1	+0·7	+0·4
	Orissa	88·3	74·9	81·7	13·4	26·1	—0·3	+0·2	—0·5
	Chota Nagpur	84·7	67·2	76·0	17·4	27·2	—1·5	—0·6	—0·9
	Bihar (South)	86·7	69·9	78·3	16·8	26·6	—2·0	—1·9	—0·1
	Do. (North)	86·9	69·6	78·3	17·2	29·6	—0·1	—1·9	+1·8

Province.	Division.	Actual temperature.					Variation from normal of month of.		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	North-Western Provinces (East)	87·7	66·8	77·2	20·9	32·1	−2·3	−1·4	−0·9
	Oudh (South)	89·8	64·5	77·2	25·3	37·1	−1·1	−1·1	0
	Do. (North)	88·7	67·0	77·9	21·7	33·1	−1·1	−0·4	−0·7
	North-Western Provinces (Central)	90·3	64·7	77·5	25·6	36·2	−1·4	−1·7	+0·3
	Do. do. (West)	90·9	63·5	77·2	27·4	36·5	−0·6	−1·2	+0·6
	Do. do. (Submontane, East)	86·1	69·3	77·7	16·8	29·3	−2·6	−0·9	−1·7
	Do. do. (Submontane, West)	85·6	60·4	73·0	25·2	35·4	−1·1	−2·1	+1·0
	Do. do. (Hills)	66·1	50·6	58·3	15·5	27·0	−0·3	−0·8	+0·5
Punjab	Punjab (South-East)	88·2	67·5	77·9	20·7	30·6	−3·6	−0·5	−3·1
	Do. (South)	90·5	62·0	76·3	28·6	37·9	−2·8	0	−2·8
	Do. (Central)	90·9	61·2	76·1	29·7	40·6	−2·3	+1·3	−3·6
	Do. (Submontane)	88·3	62·1	75·2	26·2	36·8	−2·9	+0·5	−3·4
	Do. (Hills)	66·6	44·2	55·5	22·4	38·2	−3·1	−0·4	−2·7
	Do. (North)	86·8	57·1	72·0	29·7	40·8	−1·5	+0·5	−2·0
	Do. (West)	92·8	63·0	77·9	29·7	40·7	−2·0	+0·4	−2·4
Bombay and Malabar Coast Districts (Madras).	Malabar	87·0	75·6	81·3	11·5	17·5	+2·4	+1·2	+1·2
	Madras (South Central)	89·2	71·5	80·4	17·7	29·0	+0·6	+1·0	−0·4
	Coorg	76·9	62·7	69·8	14·2	24·3	+1·5	+0·6	+0·9
	Mysore	83·6	66·4	75·0	17·3	26·9	+1·1	+0·5	+0·6
	Konkan	87·9	75·3	81·6	12·6	22·4	+1·6	+0·6	+1·0
	Bombay Deccan	90·4	66·4	78·4	24·0	32·9	+3·8	−0·4	+4·2
	Hyderabad (North)	87·0	58·9	73·0	28·1	37·5	...	...	...
	Khandesh	91·4	62·1	76·8	29·3	39·7	+3·0	−2·8	+5·8
Central Provinces and Berar.	Berar	90·7	63·7	77·2	27·0	35·7	+2·0	−3·1	+5·1
	Central Provinces (West)	89·8	63·3	76·6	26·5	34·8	+0·4	−3·8	+4·2
	Do. (Central)	86·5	63·7	75·1	22·8	32·8	−0·8	−1·9	+1·1
	Do. (East)	86·3	69·9	78·1	16·4	27·8	−2·0	−1·2	−0·8
Bombay (North)	Gujarat	97·0	69·7	83·4	27·4	33·5	+3·2	−1·4	+4·6
	Kathiawar	94·6	68·7	81·6	25·9	34·3	+0·6	−1·4	+2·0
	Sind	97·5	67·6	82·6	29·9	43·4	+1·4	−0·8	+2·2
	Baluchistan Hills	77·0	42·0	59·5	35·0	54·0	+0·2	+2·0	−1·8
Rajputana and Central India.	Central India (East)	87·2	62·1	74·7	25·1	34·5	−1·5	−2·6	+1·1
	Rajputana (East), Central India (West)	92·0	62·8	77·4	29·2	37·9	−0·1	−2·1	+2·0
	Do. (West)	96·6	66·6	81·6	30·0	39·1	−0·8	−0·1	−0·7
Madras	East Coast (North)	87·9	75·7	81·8	12·1	23·9	−0·1	+0·6	−0·7
	Hyderabad (South)	89·4	68·9	79·2	20·6	32·2	+2·1	−0·6	+2·7
	Madras (Central)	92·4	72·3	82·4	20·1	32·4	+3·5	+0·1	+3·4
	East Coast (Central)	91·0	76·4	83·7	14·6	26·4	+0·8	+0·6	+0·2
	Do. (South)	90·3	76·3	83·3	14·1	26·7	+1·2	+1·1	+0·1
	Madras (South)	91·2	74·7	83·0	16·5	26·7	+0·3	+0·3	0

At the commencement of the month the weather was generally fine except for showers over the south of the Peninsula, but the mean temperature was low except over the west of the Peninsula and a large part of North-

East India and of Burma. The following gives temperature variation data for the 24 hours preceding 8 A.M. of the 1st :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st October.	Mean minimum temperature, 1st October.	Mean daily temperature, 1st October.
	°	°	°
Burma	+0·3	+0·8	+0·6
Assam	+2·5	+1·0	+1·8
Bengal	+1·4	+1·4	+1·4
Orissa	−0·4	−0·1	−0·3
Bihar	−2·6	−1·3	−2·0
Chota Nagpur	−2·3	−2·1	−2·2
North-Western Provinces and Oudh	−4·1	−4·6	−4·4
Punjab	−4·9	−3·9	−4·4
Sind	+1·0	−3·3	−1·2
Rajputana	−2·9	−3·9	−3·4
Gujarat	−2·1	−4·2	−3·2
Central India	−3·1	−2·0	−2·6
Central Provinces	−1·9	−2·9	−2·4
Berar	+0·1	−5·6	−2·8
West Coast	+1·5	+1·8	+1·7
Bombay Deccan	+2·7	−0·1	+1·3
Mysore	+1·5	−1·5	0
Madras Coast	+1·5	−0·5	+0·5
Madras Deccan	+0·5	+1·0	+0·8
South India	+2·0	−0·4	+0·8

There was no important change during the next two days beyond the intensification of the low temperature area over the Gangetic Plain and West Bengal. The following gives comparative data for representative stations in this area from the 1st to the 4th :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
1st October	Lucknow	−4·2	−8·4	−6·3
" "	Delhi	−7·0	−5·2	−6·1
" "	Meerut	−5·3	−6·7	−6·0
2nd "	Nowgong	−6·5	−9·4	−8·0
" "	Neemuch	−7·7	−7·2	−7·5
2nd October	Benares	−3·7	−9·1	−6·4
" "	Mainpuri	−6·7	−5·4	−6·1
" "	Ajmer	−3·5	−8·5	−6·0
3rd "	Hoshangabad	−3·4	−9·8	−6·6
" "	Benares	−3·2	−9·7	−6·5
" "	Nowgong	−5·9	−6·4	−6·2
" "	Patna	−4·3	−7·9	−6·1
" "	Jubbulpore	−4·1	−7·8	−6·0
4th "	Benares	−3·6	−7·1	−5·4
" "	Akola	−0·2	−9·5	−4·9
" "	Ahmednagar	+1·1	−10·7	−4·8
" "	Gaya	−3·6	−5·6	−4·6
" "	Mainpuri	−4·3	−4·8	−4·6
" "	Seoni	−3·1	−5·9	−4·5
" "	Jubbulpore	−3·8	−4·9	−4·4
" "	Patna	−3·4	−4·7	−4·1
" "	Nowgong	−5·6	−2·6	−4·1

On the 4th a barometric depression which had been slowly developing over the Bay, commenced to affect the weather around the head of the Bay, where moderate to heavy rain was falling. The following gives comparative temperature data for the stations in deltaic Bengal and Orissa, for the 24 hours preceding 8 A.M. of the 4th :—

Station.	Variation from normal of		
	Maximum temperature 4th October.	Minimum temperature 4th October.	Mean temperature 4th October.
	°	°	°
Saugor Island	−5·1	−3·4	−4·3
False Point	−4·6	−1·2	−2·9
Barisal	−4·1	−0·5	−2·3
Cuttack	−2·8	+1·5	−0·7
Calcutta	−0·7	+0·2	−0·3
Balasore	−2·4	+2·0	−0·2
Jessore	−1·6	+1·5	−0·1

On the 5th the rain ceased, and temperature rose, but on the 6th the storm advanced suddenly, rain recommenced heavily and the mean temperature fell. The storm with its

accompanying rainfall passed into Orissa and the Circars on the 6th; the east of the Central Provinces on the 7th and 8th; into West Bengal on the 9th and 10th; and Lower Bengal on the 11th where it filled up. It occasioned a brisk fall of temperature over the districts through which it passed, as is shown below:—

Date.	District.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
6th October	Orissa	— 3·5	+0·1	—1·7
7th "	East of Central Provinces.	— 6·1	+0·7	—2·7
8th "	Ditto	—10·1	+0·1	—5·0
9th "	West Bengal	— 3·2	+1·2	—1·0
10th "	Ditto	— 7·1	—1·2	—4·2
11th "	Lower Bengal	+ 1·2	+3·1	+2·2

The following gives the two stations where the depression of temperature due to the storm was greatest from the 6th to the 12th:—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
6th October	Gopalpur	— 4·5	—1·1	—2·8
	Cuttack	— 4·4	—0·1	—2·3
7th "	Sambalpur	— 9·0	+0·8	—4·1
	Raipur	— 3·2	+0·6	—1·3
8th "	Do.	—12·2	—2·8	—7·5
	Gaya	— 5·0	—5·1	—5·1
9th "	Raipur	—12·5	—2·0	—7·3
	Gaya	— 7·1	—4·8	—6·0
10th "	Do.	—10·0	—5·3	—7·7
	Patna	— 5·7	—2·6	—4·2
11th "	Gaya	— 8·8	—3·8	—6·3
	Patna	— 9·4	+0·6	—4·4
12th "	Gaya	— 7·5	—4·6	—6·1
	Patna	— 4·1	—0·2	—2·2

In the mean time about the 8th the mean temperature rose to above the normal over the Madras Coast and this area of excessive temperature spread over the Peninsula and held steadily until the 19th. The following gives comparative data for the Peninsular divisions for each alternate day from the 7th to the 19th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	7th October.	9th October.	11th October.	13th October.	15th October.	17th October.	19th October.
	°	°	°	°	°	°	°
West Coast	+0·9	+0·7	+1·2	+1·2	+1·3	+1·7	+2·5
Bombay Deccan	+0·5	+2·8	—1·0	+1·3	+1·0	—1·2	+1·7
Mysore	+0·8	+1·2	+3·2	+2·9	+2·5	+1·6	+1·7
Madras Coast.	+0·6	+2·8	+2·9	+1·7	+1·8	+2·4	—0·1
Madras Deccan	—0·7	+2·2	+1·2	+4·1	+4·2	+2·1	+2·3
South India	—0·1	+1·5	+3·8	+1·5	+1·0	+0·8	—1·3

The hottest days during this period were the 10th and 11th and the 14th to 16th when the day temperature was more than 5° above the normal at the stations for which comparative data are given below:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
10th October	Nellore	102·8	93·3	+9·5
	Tinnevelly	102·4	95·6	+6·8
	Bellary	96·2	90·2	+6·0
	Cocanada	95·1	89·4	+5·7
	Cuddapah	96·2	90·8	+5·4
	Bijapur	94·2	89·0	+5·2
11th "	Cuddapah	98·2	89·8	+8·4
	Sholapur	96·2	90·1	+6·1
	Nellore	98·3	92·6	+5·7
	Trichinopoly	98·1	92·6	+5·5
	Chitaldroog	89·6	84·4	+5·2
14th "	Cuddapah	97·2	89·0	+8·2
	Kurnool	95·2	88·3	+6·9
	Bellary	96·2	89·9	+6·3
	Belgaum	89·8	83·5	+6·3
	Chitaldroog	90·1	84·0	+6·1
	Bijapur	93·7	88·1	+5·6

Date.	Station.	Maximum temperature. Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
15th October	Cuddapah	98·2	89·2	+9·0
	Kurnool	96·2	88·2	+8·0
	Bellary	97·2	89·7	+7·5
	Poona	94·5	88·8	+5·7
	Raichur	94·1	88·5	+5·6
	Chitaldroog	89·6	84·1	+5·5
16th "	Cuddapah	97·7	89·4	+8·3
	Bellary	95·7	89·6	+6·1
	Poona	94·0	88·6	+5·4
	Sholapur	94·7	89·6	+5·1

Over North-West India the weather was steadily cooler than usual from the 5th to the 16th. The following gives comparative data for the various divisions of North-West India for each alternate day from the 4th to the 16th in illustration :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	4th October.	6th October.	8th October.	10th October.	12th October.	14th October.	16th October.
	°	°	°	°	°	°	°
N.-W. P. and Oudh.	−2·4	−1·1	−0·4	−2·2	−2·4	−1·4	−2·4
Punjab	−0·3	−1·9	−2·8	−4·0	−1·5	−1·5	−0·9
Sind	+1·2	−3·2	−3·3	−1·7	+0·3	−1·7	+0·5
Rajputana	−2·0	−0·2	−1·5	−4·9	−2·2	−2·4	−0·8
Gujarat	−1·8	−1·5	−1·2	−2·2	−1·9	−0·9	−1·0

The coolest days were thus the 10th and 11th, and the following gives comparative data for the various stations in North-West India at which the mean temperature was 5° or more in defect on those days :—

Date.	Station.	Variation from normal of Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
10th October	Neemuch	−3·5	−9·2	−6·4
	Montgomery	−7·5	−5·3	−6·4
	Ajmer	−3·3	−9·2	−6·3
	Indore	−3·1	−9·5	−6·3
	Sambhar	−3·5	−8·5	−6·0
	Lahore	−5·1	−6·9	−6·0
	Delhi	−4·8	−5·2	−5·0
11th "	Nowgong	−5·7	−7·4	−6·6
	Ajmer	−3·3	−8·8	−6·1
	Neemuch	−2·7	−8·8	−5·8
	Indore	−2·1	−8·3	−5·2

On the 16th a marked rise of temperature occurred in the extreme north-west and this rise continued and extended till, on the 20th and 21st, the excess in the mean temperature had become considerable in the Punjab and Sind. The following gives comparative data for the north-west divisions of India from the 17th to the 21st :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	17th October.	18th October.	19th October.	20th October.	21st October.
	°	°	°	°	°
N.-W. P. and Oudh	−1·9	−1·8	−1·5	−0·7	+1·2
Punjab	−1·3	−0·6	+1·2	+4·1	+1·3
Sind	+0·6	+1·2	+1·4	+2·9	+3·6
Rajputana	+0·7	+0·3	+2·1	+2·6	+2·0
Gujarat	−0·3	−0·3	+0·3	+1·4	−0·5

The excess was much more marked in the night than in the day temperature, at this time, and was more than 10° at the two stations (20th) for which comparative data are given below :—

Station.	Minimum temperature. Actual, 20th October.	Normal, 20th October.	Variation of actual from normal, 20th October
	°	°	°
Montgomery	75·0	60·8	+14·2
Khushab	72·9	59·9	+13·0

Over the central parts of the country the weather was uninterruptedly fine and the nights colder than usual, so that the mean temperature was below the normal from the 12th to the 19th. The following gives comparative data for the central districts for the above period :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	12th October.	13th October.	14th October.	15th October.	16th October.	17th October.	18th October.	19th October.
	°	°	°	°	°	°	°	°
Central India . .	−3·8	−2·5	−2·0	−2·6	−3·1	−2·1	−1·3	−0·6
Central Provinces .	−2·1	−1·3	−1·1	−1·6	−2·6	−2·7	−2·5	−1·4
Berar . . .	−1·7	−3·1	−1·5	−2·2	−2·6	−2·8	−1·7	−1·9

On the 18th rain recommened along the Madras coast, and the excessive temperatures, which, as shown above, had prevailed over the Peninsula from the 7th to the 19th, began to give way. Rain extended during the 19th and 20th, but was at no time heavy or extensive, and hence the depression of temperature at the Peninsular stations was not large. The following gives comparative data for the Peninsular divisions from the 18th to the 23rd :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	18th October.	19th October.	20th October.	21st October.	22nd October.	23rd October.
	°	°	°	°	°	°
West Coast . . .	+2·3	+2·5	+2·2	+1·1	+0·5	+0·4
Bombay Deccan . .	−0·2	+1·7	−0·2	+0·3	+1·2	+3·0
Mysore . . .	+2·1	+1·7	+1·6	+0·3	−1·3	−0·2
Madras Coast . .	+1·5	−0·1	+0·7	+0·4	+0·2	+1·1
Madras Deccan . .	+3·5	+2·3	+1·1	+0·2	+0·8	+1·5
South India . . .	−0·2	−1·3	−1·2	+0·2	−0·3	−1·3

On the 21st and 22nd showers were reported from various stations in the north-west hills and plains and a brisk fall of temperature took place, which reduced the temperature of the Punjab to below the normal and at the same time caused the transference southward to the central districts of India and the head of the Peninsula, of the area of high temperature which, from the 17th to the 21st, had existed over the Punjab. The following gives comparative data from the 21st to the 24th for the north-western and central divisions of the country :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	21st October.	22nd October.	23rd October.	24th October.
	°	°	°	°
North-Western Provinces and Oudh.	+1·1	−0·7	−0·7	−0·8
Punjab	+1·3	−3·2	−1·8	−0·9
Sind	+3·6	+3·1	+0·9	+0·9
Rajputana	+2·0	−0·6	−0·7	+0·5
Gujarat	−0·5	+0·2	+0·3	+1·6
Central India	+0·3	+0·6	+0·7	−0·7
Central Provinces . . .	+0·5	+1·2	+0·2	−1·1
Berar	+0·5	+1·3	+4·3	+0·3

North-East India, at this time, was steadily cooler than the normal. The following gives data from the 17th to the 24th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	17th October.	18th October.	19th October.	20th October.	21st October.	22nd October.	23rd October.	24th October.
	°	°	°	°	°	°	°	°
Assam . . .	−1·2	−2·4	−2·7	−2·3	−1·0	−0·6	−0·8	−1·0
Bengal . . .	−1·1	−1·7	−2·6	−2·4	−1·7	−1·2	−0·7	+0·5
Orissa . . .	+0·8	+0·3	−1·1	−1·3	−1·3	−1·3	−1·1	+0·5
Bihar	−1·6	−1·5	−1·4	−1·6	−1·3	−0·4	−1·2	−0·8
Chota Nagpur . .	−0·6	−1·7	−0·3	−1·8	−2·0	−1·5	−1·7	−1·7

On the 24th an important change commenced in the south. At 8 A.M. on this date a considerable depression was approaching the Madras coast, and occasioning heavy rain at the coast stations. The storm broke up quickly during the 24th but rain continued along the coast during the 25th and the depression of temperature at the

stations along the coast on the 24th and 25th was large, as is shown below :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
24th October	Cuddalore	− 8·3	−4·3	−6·3
,,	Negapatam	− 8·4	−1·8	−5·1
,,	Madras	− 6·8	+0·1	−3·4
25th ,,	Waltair	−11·6	−2·7	−7·2
,,	Madras	− 9·7	−3·3	−6·5
,,	Cocanada	− 9·4	−1·2	−5·3
,,	Masulipatam	− 9·0	−0·7	−4·9
,,	Gopalpur	− 8·9	+0·2	−4·4

With the dispersion of the depression referred to above conditions became settled over Southern India and from the 25th onward to the close of the month the weather was quiet, and the mean temperature above the normal. The following gives comparative data for the Peninsular divisions from the 25th to the end of the month :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	25th October.	26th October.	27th October.	28th October.	29th October.	30th October.	31st October.
	°	°	°	°	°	°	°
Central Provinces.	−0·5	+0·3	−0·7	−1·2	−1·0	−0·7	+0·7
Berar	−0·5	+3·6	+1·5	+1·0	+0·6	−0·2	+0·7
West Coast	+1·4	+1·8	+2·9	+1·6	+2·0	+3·6	+2·2
Bombay Deccan	+2·0	+3·2	+4·8	+4·5	+4·6	+1·5	+2·7
Mysore	−4·0	−1·2	+0·5	+2·6	+1·7	+1·5	+1·6
Madras Coast	−4·0	−0·8	+0·9	+0·6	+0·6	+1·0	+0·2
Madras Deccan	−0·9	−0·5	+2·2	+4·0	+2·8	+2·6	−0·1
South India	−0·4	+2·0	+2·1	+2·6	+0·3	+1·2	+0·7

As shown above the temperature excess was greatest over the Bombay Deccan and Khandesh between the 26th and the 29th, an excess mainly attributable to the night temperatures, which, in several instances, were largely above the normal. The following gives data of certain selected stations in illustration :—

DATE.	STATION.	MINIMUM TEMPERATURE.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
26TH OCTOBER.	Poona	74·9	64·0	+10·9
	Ahmednagar	71·4	63·2	+ 8·2
	Sholapur	73·0	65·8	+ 7·2
27TH ,,	Amednagar	74·9	63·2	+11·7
	Sholapur	74·0	65·4	+ 8·6
	Malegaon	69·2	61·1	+ 8·1
28TH ,,	Malegaon	70·2	60·7	+ 9·5
	Ahmednagar	71·4	62·9	+ 8·5
	Sholapur	72·0	65·0	+ 7·0
	Poona	69·4	62·7	+ 6·7
29TH ,,	Ahmednagar	71·9	62·5	+ 9·4
	Poona	70·9	62·2	+ 8·7
	Malegaon	66·3	60·3	+ 6·0
	Bijapur	69·8	65·1	+ 4·7

In North-East India and Upper Burma the mean temperature was unsteady during the last week of the month and varied slightly and irregularly from the normal. The following gives comparative data for the different divisions of Bengal and for Assam and Burma from the 25th to the 31st :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	25th October.	26th October.	27th October.	28th October.	29th October.	30th October.	31st October.
	°	°	°	°	°	°	°
Bengal	−0·4	−0·6	+0·4	−0·3	−0·4	−1·1	−1·6
Orissa	+0·4	−0·1	−0·5	−1·1	−0·7	−1·8	−2·6
Bihar	−0·9	−0·8	−1·1	−1·2	−1·3	−1·1	−0·8
Chota Nagpur	−1·6	−1·3	−1·0	−1·4	−1·1	−1·6	−0·5
Assam	−0·8	−2·0	−0·4	−0·7	−0·4	−0·5	+0·3
Burma	+0·5	+0·3	+0·4	+0·7	+0·3	−0·6	−0·2

In Tenasserim, on the contrary, the heat was steadily excessive from the 25th to the 31st. This is shown below :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF						
	25th October.	26th October.	27th October.	28th October.	29th October.	30th October.	31st October.
	°	°	°	°	°	°	°
Tenasserim	+2·4	+3·4	+3·4	+3·7	+1·9	+0·8	+2·2

In Northern India the weather was generally cooler than usual during the last week of the month, but, on the 27th, a feeble warm wave appeared over the Indus Valley and thence extended eastward till, by the 31st, it had included the whole area of Northern India as far west as Bihar. The progress of this change is shown in the following table which gives comparative data for the Punjab, Sind, Rajputana, Central India and the North-Western Provinces:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of				
	27th October.	28th October.	29th October.	30th October.	31st October.
	°	°	°	°	°
Punjab	+0·3	+0·9	+1·6	+1·4	+2·3
Sind	+0·6	+2·5	+1·1	+2·1	+2·6
Rajputana	−1·8	+0·2	+1·4	+2·9	+2·9
Central India	−3·2	−2·5	−1·3	0	+1·8
North-Western Provinces and Oudh.	−2·0	−1·7	+0·4	+0·5	+1·2

On the 30th and 31st the night temperatures were very excessive at the Baluchistan stations. This is shown below:—

Date.	Station.	Minimum temperature.		
		Actual, of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
30th October	Quetta	49·9	34·1	+15·8
	Chaman	61·1	46·9	+14·2
31st "	Chaman	61·1	46·2	+14·9
	Quetta	42·4	33·7	+ 8·7

The following gives the variations of the mean temperature, week by week, during the month and also for the whole month:—

Province or Division.	Variation from normal of mean temperature for week ending					
	6th October.	13th October.	20th October.	27th October.	3rd Nov.	For whole month.
	°	°	°	°	°	°
Burma	+0·9	+0·1	+0·7	+0·4	+0·4	+0·8
Assam	+2·2	+2·6	−1·0	−0·9	+0·1	+0·6
Bengal	+0·4	+1·9	−0·7	−0·5	−0·1	+0·2
Orissa	−0·7	+1·0	+0·9	−0·5	−1·3	−0·1
Bihar	−2·9	−1·4	−1·5	−0·9	−0·6	−1·5
Chota Nagpur	−1·8	−0·1	−0·8	−1·5	−0·7	−1·1
North-Western Provinces and Oudh.	−3·1	−1·8	−1·6	−0·7	+0·5	−1·5
Punjab	−2·8	−2·9	−0·1	−1·0	+2·3	−1·0
Sind	−0·7	−1·6	+0·5	+1·8	+2·8	+0·3
Rajputana	−2·6	−2·6	0	−0·4	+3·1	−1·0
Gujarat	−2·1	−1·5	−0·3	+0·9	+2·7	+0·1
Central India	−3·5	−3·2	−1·6	−1·0	+0·5	−2·1
Central Provinces	−2·9	−2·0	−1·8	0	−0·4	−1·6
Berar	−2·9	−2·3	−1·8	+1·6	+0·3	−1·1
West Coast	+1·4	+0·9	+1·8	+1·4	+1·5	+1·4
Bombay Deccan	−0·2	+0·6	+0·5	+2·4	+2·3	+1·2
Mysore	+0·2	+1·6	+2·0	−1·0	+0·1	+0·8
Madras Coast	+0·1	+2·1	+1·6	−0·5	+0·1	+0·7
Madras Deccan	−0·3	+1·6	+3·1	+0·5	+1·2	+1·3
South India	+0·5	+1·8	+0·2	+0·1	+0·2	+0·7

Winds.

As October is a month of slow transition from the south-west monsoon proper to the north-east or cold weather monsoon and is characterised by marked uniformity of pressure and temperature conditions, the air movement of the period is feeble and more irregular than in any other month of the year. In October 1900 the northerly winds of the cold weather extended somewhat earlier than usual over the north and centre of the Bay, but in general the air movement over India and the Indian seas was fairly normal.

Winds were slightly stronger and steadier than usual on the Burma coast and over the Bay Islands. The following gives comparative data:—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Port Blair	26	25	+ 1	160	150	+10
Cocos Island	28	13	+15	96	...	...
Rangoon	29	28	+ 1	84	74	+10
Diamond Island	18	17	+ 1	198	173	+25
Akyab	11	8	+ 3	61	59	+ 2

The mean wind direction varied a good deal from the normal direction, the chief feature having been the abnormal northing in the wind's direction at Diamond Island and at Cocos Island. This is shown below :—

STATION.	MEAN WIND DIRECTION.	
	Actual, October 1900.	Normal, October.
	°	°
Diamond Island	N 63 E	S 56 E
Cocos Island	N 52 E	S 67 E

Around the head of the Bay the winds, on the mean of the month, were considerably stronger and steadier than usual, the increase having been most marked at Saugor Island. Comparative data are given below :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal, October.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Chittagong	39	13	+26	67	66	+ 1
Calcutta	34	11	+23	77	67	+10
Saugor Island	45	13	+32	210	174	+36
False Point	34	22	+12	180	145	+35

The increased northing noticed over the east of the Bay was equally noticeable in this area. The following gives comparative data :—

STATION.	MEAN WIND DIRECTION.		
	Actual, October 1900.	Normal, October.	Northerly deflection.
	°	°	°
Chittagong	N 3 W	N 11 W	+ 8
Calcutta	N 8 W	N 44 W	+41
Saugor Island	N 9 W	N 8 W	− 1
False Point	N 33 E	N 50 E	+17

In West Bengal, the Gangetic Plain and Upper India the winds were generally lighter than the average, but were somewhat steadier than the small normal steadiness. This is shown by the following data :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, October. 1900.	Normal percentage, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Hazaribagh	39	24	+15	114	124	−10
Darbhanga	10	1	+ 9	20	52	−32
Allahabad	23	18	+ 5	81	66	+15
Dehra Dun	20	21	− 1	20	33	−13
Roorkee	13	6	+ 7	22	31	− 9
Meerut	47	35	+12	20	31	−11
Lahore	14	11	+ 3	32	39	− 7
Ludhiana	42	22	+20	31	26	+ 5
Peshawar	19	33	−14	24	60	−36
Jacobabad	22	9	+13	29	54	−25
Kurrachee	56	61	− 5	201	235	−34

The directions varied irregularly from the normal, but there was less evidence of increased northing over this area. The following gives data :—

STATION.	MEAN WIND DIRECTION.	
	Actual, October 1900.	Normal, October.
	°	°
Hazaribagh	N 33 W	N 35 W
Darbhanga	N 13 E	S 4 W
Allahabad	N 36 W	N 49 W
Dehra Dun	S 69 W	N 39 W
Roorkee	N 34 E	S6 E
Meerut	N 87 W	N 55 W
Lahore	N 23 W	N 7 W
Ludhiana	S 89 W	N 39 W
Peshawar	N 17 E	N 52 E
Jacobabad	N 21 E	S 27 E
Kurrachee	S 7 W	S 72 W

In Rajputana the wind was west-north-westerly in the east and south-easterly in the south and was generally lighter than the average. This is shown below :—

STATION.	MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, October 1900.	Normal, October.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	°	°			
Jaipur	N 82 W	N 22 W	62	77	−'5
Deesa	S 46 E	N 82 E	144	161	−17

The following gives mean data for the Bay Islands, Burma and the different divisions of Northern India :—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
				°	°			
Bay Islands .	27	19	+ 8	N 16 W	S 14 W	128	150	—22
Burma . .	19	18	+ 1	E	S 52 E	114	102	+12
Bengal . .	39	12	+27	N 5 W	N 21 W	118	102	+16
Orissa . . .	34	22	+12	N 33 E	N 50 E	180	145	+35
Chota Nagpur .	39	24	+15	N 33 W	N 35 W	114	124	—10
Bihar . . .	10	1	+ 9	N 13 E	S 4 W	20	52	—32
North-Western Provinces.	26	20	+ 6	N 55 W	N 62 W	36	40	— 4
Punjab . .	25	22	+ 3	N 31 W	N 3 E	29	42	—13
Sind . . .	39	35	+ 4	S 72 E	S 25 W	115	145	—30
Rajputana . .	3	25	+ 9	S 27 W	N 31 E	103	119	—16

The above shows that the wind was generally steadier than usual. It was stronger than the normal in Burma and Bengal but was relatively light in West Bengal and Upper India.

The winds were somewhat steadier than usual in the Deccan area, but were fairly normal as regards direction and velocity. This is shown below :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
				°	°			
Belgaum . .	35	13	+22	N 72 E	N 54 E	179	241	—62
Sholapur . .	75	22	+53	N 41 E	N 55 E	179	193	—14
Poona . . .	19	19	0	N 60 E	N 37 E	177	139	+38
Akola . . .	52	32	+20	N 27 E	N 16 E	92	83	+ 9
Buldana . .	67	49	+18	N 23 E	N 24 E	...	125	...
Khandwa . .	39	35	+ 4	N 45 E	N 22 E	76	71	+ 5
Nagpur . .	35	49	—14	N 37 E	N 37 E	103	102	+ 1
Hyderabad Deccan	35	33	+ 2	N 80 E	S 80 E	101	96	+ 5

Winds were more northerly than usual at Bombay and Karwar and were steadier than the average though the force was low at Bombay. The following gives data for the West Coast stations :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal October 1900.	Actual, October 1900.	Normal, October.	Northerly deflection.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
				°	°	°			
Bombay .	50	33	+17	N 4 W	N 14 E	+14	193	226	—33
Karwar .	82	63	+19	N 68 W	N 76 W	+ 8	75	54	+21

In South India the wind was exceptionally steady. The following gives comparative data :—

Station.	Mean steadiness.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal, October 1900.
Salem	16	29	—13
Chitaldroog	45	15	+30
Bangalore	40	8	+32
Hassan	60	24	+36
Mysore	26	13	+13
Madras	39	17	+22
Bellary	34	14	+20

At most stations in this region the wind was somewhat more easterly than usual, but on the whole the mean direction was approximately normal while the velocity varied irregularly from the average. This is shown below :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, October 1900.	Normal, October.	Easterly Deflection.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	°	°	°			
Salem . . .	N 36 E	S 50 W	...	64	60	+ 4
Chitaldroog . .	N 40 E	N 28 E	+12	130	143	—13
Bangalore . . .	N 32 E	N 8 W	+40	146	105	+41
Hassan . . .	N 50 E	N 42 E	+ 8	59	63	— 4
Mysore . . .	N 54 E	N 42 E	+12	171	185	—14
Madras . . .	N 54 E	N 55 E	— 1	128	118	+10
Bellary . . .	N 37 E	N 42 E	— 5	114	104	+10

The following gives mean data for the various divisions of the Peninsula :—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual, normal, from October 1900.	Actual, October 1900.	Normal, October.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
				°	°			
Central Provinces .	37	42	− 5	N 41 E	N 30 E	90	87	+ 3
Berar . . .	60	41	+19	N 25 E	N 20 E	92	104	−12
Bombay Deccan .	43	18	+25	N 58 E	N 49 E	178	191	−13
West Coast .	66	48	+18	N 36 W	N 36 W	134	140	− 6
Madras Deccan .	35	24	+11	N 59 E	N 71 E	108	100	+ 8
Madras Coast .	39	17	+22	N 54 E	N 55 E	128	118	+10
Mysore . .	43	15	+28	N 44 E	N 29 E	127	124	+ 3
South India . .	16	29	−13	N 36 E	S 50 W	64	60	+ 4

The preceding data show generally steadier winds than usual over the Peninsula. The force was relatively low over Berar, the Bombay Deccan and the West Coast but was stronger than usual in the south. There was increased easting shown in some divisions.

On the hills the winds varied irregularly from the normal and ranged generally between south-south-west and south-south-east. The steadiness was about the average. The velocity was about normal, except at Chakrata, where the wind was much stronger than usual. The following gives comparative data as regards direction and velocity for the Himalayan stations :—

Station.	Mean wind irdection.		Mean wind velocity in miles per diem.		
	Actual, October 1900.	Normal, October.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	°	°			
Leh. . . .	S 51 W	S 55 W	66	44	+22
Srinagar . . .	N 14 W	N 18 W	74	75	− 1
Kailang . . .	S 29 W	S 37 W	34	37	− 3
Simla . . .	S 36 W	N 32 W	95	108	−13
Chakrata . .	S 21 E	S 64 W	220	129	+91
Ranikhet. . .	S 67 W	S 55 W	60	49	+11
Katmandu . .	S 80 W	W	17	16	+ 1
Darjeeling . .	S 40 W	S 78 W	55	85	−30

The wind was generally steadier and stronger than usual at the central hill stations, while on the contrary, it was much less steady than usual at Wellington.

The following gives data :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Mount Abu .	29	9	+20	118	109	+ 9
Pachmarhi .	52	32	+20	113	75	+38
Chikalda .	33	40	− 7	165	139	+26
Wellington .	19	34	−15	61	54	+ 7

In the South-East Trades region the wind was less easterly than the average. This is shown below :—

Station.	Mean wind direction.		
	Actual, October 1900.	Normal, October.	Easterly deflection.
	°	°	°
Zanzibar	S 2 W	S 3 E	−5
Seychelles	S 37 E	S 44 E	−7

It was stronger than usual both at Zanzibar and the Seychelles, while the steadiness was in trifling excess at Zanzibar and in moderate excess at the Seychelles. The following gives data :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, October 1900.	Normal percentage, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Zanzibar .	55	53	+ 2	130	120	+10
Seychelles .	76	59	+17	231	183	+48

The following table gives comparative data of the mean

air movement for the various provinces based on Table I:—

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Burma	69	67	+ 2
Assam	41	55	—14
Bengal	46	72	—36
Orissa	103	96	+ 7
Bihar	58	43	+15
Chota Nagpur	65	120	—55
North-Western Provinces and Oudh	34	50	—16
Punjab	53	41	+12
Sind	91	158	—67
Rajputana	84	101	—17
Gujarat	113	134	—21
Central India	48	96	—48
Central Provinces	67	65	+ 2
Berar	127	74	+53
West Coast	113	161	—48
Bombay Deccan	137	170	—33
Mysore	134	96	+38
Madras Coast	151	103	+48
Madras Deccan	151	96	+55
South India	91	79	+12

Humidity and Cloud.

The rains continued later than usual in September over Upper India and the air was damper than the average over the Punjab and the west of the North-Western Provinces during October. On the other hand the rains to a considerable extent failed over the Deccan and excessive dryness of the air was reported from that region.

The following gives comparative data for the stations at which the humidity was more than 15 per cent in defect:—

Station.	Absolute humidity.			Relative humidity.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Sholapur	·409	·579	—·170	41	63	—21
Buldana	·367	·523	—·156	43	59	—16

Over the remainder of India the variations of the relative humidity from the normal were generally moderate to small.

On the Burma coast the absolute humidity was in excess, but the mean temperature was also above the normal and the relative humidity was less than usual. The following gives comparative data:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Diamond Island	·905	·867	+·038	80	83	—3
Rangoon	·909	·888	+·021	84	84	0

In Lower and West Bengal both the absolute and relative humidities were in defect, the deficiency having been greatest at Calcutta. This is shown below:—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Calcutta	·784	·818	—·035	74	81	—7
Chittagong	·822	·848	—·026	79	83	—4
Saugor Island	·830	·857	—·027	78	81	—3
Hazaribagh	·503	·539	—·036	61	64	—3
Darbhanga	·742	·757	—·015	73	75	—2

On the other hand, in Orissa the absolute humidity was in excess and the mean temperature was lower than usual In consequence the relative humidity was in slight local excess. The following gives data for False Point in illustration :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
False Point . .	·853	·825	+·028	80	79	+1

At Allahabad the amount of vapour in the air was above the normal but the mean temperature was low and the relative humidity was normal. The following gives comparative data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Allahabad . .	·626	·620	+·006	66	66	0

At Lahore the absolute humidity was in excess but at the remaining stations in the Punjab it was in defect. The mean temperature in this area was, however, very generally in moderate defect and as a consequence the relative humidity of this region was in slight general excess. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Lahore . . .	·487	·442	+·045	56	47	+9
Ludhiana . .	·445	·464	—·019	55	53	+2

At Peshawar both the absolute and relative humidities were in trifling excess but in Sind the amount of vapour present in the air was in defect, while the mean temperature was higher than usual. As a result the relative humidity was in slight to considerable defect. Data for these three stations are given below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Peshawar . .	·370	·363	+·007	48	47	+1
Kurrachee . .	·604	·646	—·042	55	63	—8
Jacobabad . .	·404	·419	—·015	40	42	—2

Jaipur and Deesa both had low humidities and a high temperature. The following gives data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Deesa . . .	·389	·440	—·051	39	42	—3
Jaipur . . .	·385	·406	—·021	41	43	—2

The following gives comparative humidity data for the different divisions of Northern India and for Burma and the Bay Islands :—

PROVINCE OR DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Bay Islands . .	·903	·895	+·008	83	85	—2
Burma . . .	·907	·877	+·030	82	84	—2
Bengal . . .	·812	·841	—·029	77	82	—5
Chota Nagpur .	·503	·539	—·036	61	64	—3
Bihar . . .	·742	·757	—·015	73	75	—2
Orissa . . .	·853	·825	+·028	80	79	+1
North-Western Provinces.	·497	·514	—·017	61	61	0
Punjab . .	·434	·423	+·011	53	49	+4
Sind . . .	·504	·533	—·029	48	53	—5
Rajputana . .	·387	·423	—·036	40	43	—3

The preceding data show that over most of the divisions the absolute humidity was in defect and that the relative humidity was in slight defect except in the Punjab and Orissa where it was in slight excess and in the North-Western Provinces where it was normal.

In the Deccan the air was very dry so that, though the mean temperature was not generally in excess, the relative humidity was considerably below the normal. The greatest deficiency was reported from the Bombay Deccan at Sholapur, but over Berar and the west of the Central Provinces also the deficiency was very marked. This is shown below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Sholapur . .	·409	·579	—·170	41	62	—21
Buldana . .	·367	·523	—·156	43	59	—16
Belgaum . .	·514	·589	—·075	60	72	—12
Akola . . .	·423	·571	—·148	49	60	—11
Nagpur. . .	·477	·581	—·104	51	60	— 9
Hyderabad Deccan.	·569	·649	—·080	61	70	— 9
Poona . . .	·453	·549	—·096	52	60	— 8
Khandwa . .	·456	·540	—·084	52	57	— 5

Along the West Coast the amount of vapour present in the air was below the normal while the heat was greater than usual. Hence the relative humidity was much less than usual. The following gives comparative data for the two stations in this area :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Bombay . .	·770	·840	—·070	72	80	—8
Karwar . .	·809	·815	—·006	77	83	—6

In South India the air was generally damper than usual but the mean temperature was in excess and the relative humidity was hence on the whole below the normal. Bellary formed an exception as at this station the vapour tension was low and the relative humidity was in considerable defect. The following gives data for the stations in this region :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual. October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Mysore .	·623	·602	+·021	73	71	+2
Chitaldroog . .	·609	·566	+·043	66	65	+1
Bellary . . .	·550	·621	—·071	54	63	—9
Salem . . .	·731	·751	—·020	72	76	—4
Bangalore . .	·593	·592	+·001	73	75	—2
Hassan . . .	·580	·579	+·001	73	75	—2
Madras . .	·861	·833	+·028	80	80	0

The following gives mean data for the different divisions of the Peninsula :—

Province or Division.	Mean Absolute Humidity.			Mean Relative Humidity.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Central Provinces. .	·467	·561	—·094	52	59	— 7
Berar	·395	·547	—·152	46	60	—14
Bombay Deccan . .	·459	·573	—·114	51	65	—14
West Coast . . .	·790	·828	—·038	75	82	— 7
Madras Deccan . .	·560	·636	—·076	58	67	— 9
Mysore . . .	·601	·584	+·017	71	71	0
Madras Coast . .	·861	·833	+·028	80	80	0
South India . . .	·731	·751	—·020	72	76	— 4

The above shows that over the centre and west of the Peninsula both the absolute and relative humidities were below the normal while in South India the absolute humidity was generally in excess and the relative humidity normal or in defect.

At the hill stations the variations from the normal were irregular. At Quetta and at the stations in the Kumaun

and Eastern Himalayas the humidity was generally below the normal. This is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Quetta . . .	·180	·186	—·006	41	41	0
Ranikhet . . .	·294	·328	—·034	55	61	—6
Chakrata . . .	·256	·284	—·028	55	60	—5
Simla	·218	·246	—·028	50	52	—2
Darjeeling . . .	·356	·370	—·014	79	83	—4

On the other hand, in Lahoul, and Kashmir the absolute humidity was in considerable excess of the average, while the temperature being below the normal, the relative humidity was in large excess. The following gives data for these areas:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October	Variation of actual from normal, October 1900.	Actual, October 1900,	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Leh	·169	·100	+·069	63	40	+23
Kailang . . .	·183	·134	+·049	67	50	+17
Srinagar . . .	·358	·315	+·043	84	78	+ 6

At the central and southern hill stations both the absolute and relative humidities were below the normal. The following gives data:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Chikalda . . .	·365	·466	—·101	49	62	—13
Mount Abu . . .	·285	·339	—·054	37	45	— 8
Pachmarhi . . .	·342	·439	—·097	53	61	— 8
Wellington . . .	·442	·444	—·002	79	83	— 4

At Perim the air was much and at Aden slightly damper than usual while at the stations in the South-East Trades region humidity conditions were about normal. Comparative data for these stations are given below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
	"	"	"	%	%	
Perim	·965	·749	+·216	80	61	+19
Aden	·723	·720	+·003	65	64	+ 1
Zanzibar . . .	·766	·771	—·005	76	78	— 2
Seychelles . . .	·789	·780	+·009	78	78	0

The variations of the cloud amount were similar in character to those of the humidity in most of the divisions of India, a deficiency in one element accompanying in most cases a deficiency in the other element of observation and *vice versa*.

The mean cloud amount was larger than usual in Lower Burma and at the Bay Islands. The following gives data in illustration:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Port Blair	6·9	6·0	+0·9
Cocos Island	6·4	5·2	+1·2
Rangoon	6·1	5·9	+0·2
Diamond Island	5·8	5·7	+0·1

There was likewise an excess of cloud over South-West Bengal, Orissa, West Bengal and the east of the North-Western Provinces. This excess was generally small, as is shown below:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
False Point	5·6	4·8	+0·8
Calcutta	4·4	4·1	+0·3
Saugor Island	4·9	4·7	+0·2
Allahabad	2·0	1·8	+0·2
Hazaribagh	4·4	4·4	0

The mean cloud amount of the month was also in excess over the Punjab, Upper Sind and Baluchistan, the maximum of cloudiness, relatively to the normal, having been reported from Peshawar. The following table gives data in illustration :—

Province or Division.	Station.	Mean cloud amount.		
		Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Punjab	Peshawar	2·5	1·5	+1·0
Do.	Lahore	0·8	0·7	+0·1
Do.	Ludhiana	1·0	1·0	0
Upper Sind	Jacobabad	1·0	0·4	+0·6
Baluchistan	Quetta	1·4	0·6	+0·8

Over the remainder of Northern India the mean cloud amount of the month was in general, slight defect. The following gives mean data for the Bay Islands, Burma and the different divisions of Northern India :—

Province or Division.	Mean cloud amount.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Bay Islands	6·7	5·6	+1·1
Burma	5·3	5·4	—0·1
Bengal	4·5	4·4	+0·1
Bihar	1·9	2·6	—0·7
Chota Nagpur	4·4	4·4	0
Orissa	5·6	4·8	+0·8
North-Western Provinces	1·0	1·1	—0·1
Punjab	1·4	1·0	+0·4
Sind	0·7	0·7	0
Rajputana	0·6	1·8	—1·2

The preceding data show that the sky was generally less cloudy than usual except over the Bay, Lower Burma, Orissa, Chota Nagpur, the Punjab and Sind.

Over the Deccan and the west of the Peninsula and thence extending northward into Southern Rajputana there was a large area of diminished cloudiness relatively to the normal. The abnormal serenity was most marked at Sholapur at which station also, it will be remembered, the relative humidity was at its maximum deficiency. The following gives comparative data for this large area :—

Station.	Mean cloud amount.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Sholapur	3·7	5·9	—2·2
Karwar	2·7	4·5	—1·8
Bombay	2·3	4·1	—1·8
Poona	3·1	4·9	—1·8
Nagpur	3·2	3·8	—0·6
Deesa	0·2	1·8	—1·6
Akola	1·6	3·2	—1·6
Hyderabad Deccan	3·7	4·3	—0·6
Belgaum	4·1	5·6	—1·5
Khandwa	1·2	2·4	—1·2
Buldana	2·6	3·7	—1·1

Over Southern India the mean cloud amount was irregularly distributed. Over part of the Madras Deccan and in Mysore the sky was more cloudy than usual, the maximum cloudiness, relatively to the average, having been reported from Mysore. The following gives data for this area of increased cloudiness :—

Station.	Mean cloud amount.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Mysore	8·2	6·6	+1·6
Bellary	7·6	6·5	+1·1
Bangalore	6·0	5·8	+0·2
Salem	6·0	5·8	+0·2
Hassan	7·2	7·1	+0·1

In other parts of South India the sky was slightly clearer of cloud than usual. The following gives mean data for the different divisions of the Peninsula :—

Province or Division.	Mean cloud amount.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Central Provinces	2·2	3·1	—0·9
Berar	2·1	3·5	—1·4
Bombay Deccan	3·6	5·4	—1·8
West Coast	2·5	4·3	—1·8
Madras Deccan	5·7	5·4	+0·3
Madras Coast	5·8	6·0	—0·2
Mysore	6·8	6·3	+0·5
South India	6·0	5·8	+0·2

At the Kashmir, Ladakh and Lahoul hill stations the sky was generally more clouded than the normal. This is shown below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Srinagar	4·1	2·8	+1·3
Kailang	4·2	3·4	+0·8
Leh	4·4	3·8	+0·6

At the remaining stations in the Himalayas as well as at those in the central parts of the country the sky was generally clearer than usual, the maximum serenity, relatively to the average, having been reported from Chikalda. This is shown below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1900.	Normal, October,	Variation of actual from normal, October 1900.
Darjeeling	5·0	5·8	—0·8
Simla	1·3	1·5	—0·2
Ranikhet	1·5	1·7	—0·2
Katmunda	3·8	3·9	—0·1
Chikalda	0·6	3·7	—3·1
Mount Abu	0·8	1·9	—1·1
Pachmarhi	3·1	3·2	—0·1

At Zanzibar the cloud amount, on the mean of the month, was in excess of the average but at the remaining extra-Indian stations the sky was clearer than usual. The following gives data:—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Zanzibar	6·2	4·6	+1·6
Seychelles	5·5	6·2	—0·7
Perim	0·4	1·2	—0·8
Aden	1·2	1·7	—0·5

The sky was absolutely clearest of cloud over North Bombay and Rajputana where the cloud amount, on the mean of the month, was less than 0·5. This is shown below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Udaipur	0·4	...	...
Kurrachee	0·3	0·9	—0·6
Deesa	0·2	1·8	—1·6
Jamnagar	0·1	...	...

The absolute maximum cloudiness was reported from South India, where the proportion of the sky covered by cloud exceeded 7 at the following stations on the hills and plains.

STATION.	MEAN CLOUD AMOUNT.		
	Actual, October 1900.	Normal, October.	Variation of actual from normal, October 1900.
Mysore	8·2	6·6	+1·6
Bellary	7·6	6·5	+1·1
Hassan	7·2	7·1	+0·1
Wellington	7·6	7·4	+0·2
Kodaikanal	7·4	...	...

The following is a brief summary of the mean distribution of cloud in October 1900 :—

(1) Cloud was in moderate excess in Lower Burma and the Bay Islands and in slight excess in Bengal and Orissa.

(2) It was in slight to moderate excess in Upper Sind, Baluchistan and the Punjab.

(3) It was also in slight to moderate excess in Mysore and part of South India.

(4) Cloud was more or less in defect over the greater part of the remainder of India more particularly over the Deccan.

(5) Cloud amount was in excess over Kashmir and at the high level stations of Leh and Kailang, probably representative of the conditions obtaining in the central Himalayan area and Thibet.

Rainfall.

The rainfall in October is due to the retreating south-west monsoon and to the cyclonic storms which are a not unusual feature of the weather of this month. Over the whole of North-Western and Central India the average rainfall of the month is less than 2″, and diminishes in amount westwards to the Indus Valley in which the amount is less than 0·2″. In the North and Central Deccan, the Central Provinces, Bengal and greater part of Burma, the average rainfall ranges between 2 and 5 inches, whilst in Lower Burma and in the Peninsula south of Lat. 13°N it varies between 5″ and 13″, and is greatest in amount in the Madras coast districts from Vizagapatam to Negapatam.

In October 1900 rain was received over the Peninsula from the retreating south-west monsoon from about the 17th onward, but during the first two weeks of the month there occurred a widespread and moderately heavy burst of rain over North Madras, the east of the Central Provinces and North-East India from the depression which formed over the Bay on the 1st and 2nd.

The chief periods of rainfall during the month were hence—

(1) the 1st to the 3rd, when the south of the Peninsula received showers.

(2) the 6th to the 11th, when Ganjam, the east of the Central Provinces and North-East India received cyclonic rainfall from the first storm of the month.

(3) the 15th to the 20th, when the south of the Peninsula received showers.

(4) the 24th to the 26th when the east coast received moderate to heavy rain from the second storm of the month.

(5) the 28th to the 31st when the southern half of the Peninsula received showers.

(6) the 20th to the 24th, when the North Punjab and the adjoining hills received showers. The chart of rainfall of the month (Pl. V) shows that there was actually or practically no rain over the greater part of the Punjab, Baluchistan, Rajputana, North Bombay, Central India, the Central Provinces, and the west of the North-Western Provinces. From this area the amount of rain increased towards the coast of the Bay and was actually greatest at Gopalpur (12·69 inches) and Pamban (12·76 inches). The rainfall was also moderately heavy over Burma.

The chief features of the rainfall distribution of the month of October 1900 were as follows :—

(1) The rainfall of the month was generally less than usual except along the path of the first storm of the month.

(2) It was thus in excess of the normal in Orissa, the east of the Central Provinces, the east and east submontane regions of the North-Western Provinces and South Bihar.

(3) The rainfall was generally normal over Central and Upper Burma, the North Punjab, and the south and south-west of the Peninsula.

(4) It was more or less in considerable defect over the whole of the remainder of India, more particularly in Central and North-West India.

(5) No rain fell over the greater part of North-Western and Central India.

The following table gives mean actual, mean normal and variation rainfall data for the 56 meteorological divisions or districts into which India is divided :—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, October 1900.	Average normal, October.	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim*	...	...	9·23	10·66	− 1·43
	Lower Burma (Deltaic)*	...	...	5·68	8·58	− 2·90
	Central do.*	...	...	5·50	5·78	− 0·28
	Upper do.*	...	...	4·39	4·62	− 0·23
	Arakan*	...	...	4·59	9·21	− 4·62

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the Weekly Telegraphic Reports.

Province.	Division.	Number of rainy days. Average actual, October 1900.	Number of rainy days. Average normal, October.	Rainfall. Average actual, October 1900.	Rainfall. Average normal, October.	Rainfall. Variation of actual from normal, October 1900.
				Inches.	Inches.	Inches.
Bengal and Assam	Eastern Bengal	3·8	6·0	2·20	5·63	— 3·43
	Assam (Surma)	3·6	6·9	2·15	6·79	— 4·64
	Do. (Hills)	7·8	8·6	4·57	7·73	— 3·16
	Do. (Brahmaputra)	3·7	6·2	2·52	4·66	— 2·14
	Deltaic Bengal	3·7	5·5	2·62	4·51	— 1·89
	Central do.	2·4	4·4	1·43	3·56	— 2·13
	North do.	2·4	4·1	1·62	4·60	— 2·98
	Bengal Hills	2·4	5·9	0·90	6·16	— 5·26
	Orissa	5·9	6·7	7·47	5·85	+ 1·62
	Chota Nagpur	3·4	3·9	2·17	2·90	— 0·73
	Bihar (South)	2·5	2·8	2·68	2·60	+ 0·08
	Do. (North)	2·9	2·7	2·30	2·79	— 0·49
North-Western Provinces and Oudh.	North-Western Provinces (East)	2·3	2·0	3·93	2·18	+ 1·75
	Oudh (South)	1·0	1·6	0·50	1·60	— 1·10
	Do. (North)	1·2	1·5	0·61	1·61	— 1·00
	North-Western Provinces (Central)	0·2	1·2	0·10	1·04	— 0·94
	Do. do. (West)	0·2	0·7	0·07	0·54	— 0·47
	Do. do. (Submontane, East)	4·1	2·1	3·40	2·87	+ 0·53
	Do. do. (Do. West)	0·2	0·8	0·08	0·83	— 0·75
	Do. do. (Hills)	0·8	1·6	0·27	1·51	— 1·24
Punjab	Punjab (South-East)	0·5	0·5	0·17	0·36	— 0·19
	Do. (South)	0·3	0·5	0·09	0·19	— 0·10
	Do. (Central)	0·1	0·6	0·07	0·35	— 0·28
	Do. (Submontane)	0·1	0·6	0·03	0·38	— 0·35
	Do. (Hills)	0·7	1·3	0·22	0·90	— 0·68
	Do. (North)	1·1	0·9	0·48	0·48	0
	Do. (West)	0·3	0·3	0·07	0·10	— 0·03
Bombay and Malabar Coast Districts (Madras).	Malabar	9·9	11·7	6·42	9·34	— 2·92
	Travancore	13·0	...	9·15	...	...
	Madras (South Central)	8·5	8·5	5·66	6·14	— 0·48
	Coorg	11·2	...	6·15	...	...
	Mysore*	...	...	5·26	5·75	— 0·49
	Konkan	1·2	7·6	0·55	5·63	— 5·08
	Bombay Deccan	1·5	6·4	0·97	4·39	— 3·42
	Khandesh	0·2	5·6	0·06	3·61	— 3·55
Central Provinces and Berar.	Berar	0	...	0	2·49	— 2·49
	Central Provinces (West)	0	2·6	0	2·08	— 2·08
	Do. do. (Central)	0·4	2·4	0·24	1·85	— 1·61
	Do. do. (East)	2·5	2·6	3·53	2·06	+ 1·47
Bombay (North)	Gujarat	0	2·3	0	1·36	— 1·36
	Kathiawar and Cutch	0	0·4	0	0·69	— 0·69
	Sind	0	...	0	0·03	— 0·03
	Baluchistan Hills	0	...	0	0·10	— 0·10
Rajputana and Central India.	Central India (East)	0·5	...	0·28	1·50	— 1·22
	Rajputana (East) and Central India (West)	0·1	...	0·06	0·34	— 0·28
	Do. (West)	0	...	0·01	0·07	— 0·06
Madras	East Coast (North)	6·1	7·2	5·14	7·04	— 1·90
	Hyderabad (South)*	...	...	1·12	...	...
	Madras (Central)	4·6	6·3	2·56	4·84	— 2·28
	East Coast (Central)	8·5	8·1	5·66	8·68	— 3·02
	Do. (South)	8·3	9·4	6·82	8·26	— 1·44
	Madras (South)	10·4	8·6	7·62	6·79	+ 0·83

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Burma received general rain from the 3rd to the 8th, during which period some heavy local falls were reported. The 9th and 10th were generally fine and only light scattered showers were reported up to the 18th. On that date northerly breezes set in and the weather was fine until the 23rd when rain commenced on the Lower Burma coast and thence extended northward into Central and Upper Burma where it continued until the

28th. The last three days were generally fine. The rainfall of the month was in slight to considerable defect over the greater part of the province, as is shown by the following statement:—

Division.	Rainfall.			
	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	9·23	10·66	—1·43	—13
Lower Burma Deltaic	5·68	8·58	—2·90	—34
Central Burma	5·50	5·78	—0·28	— 5
Upper Burma	4·39	4·68	— 0·23	— 5
Arakan	4·59	9·21	— 4·62	—50

There were showers in South-West, North, and East Bengal and Orissa during the first five days of the month. On the 6th the weather began to be affected by the storm from the Bay and a burst of rain commenced in Orissa and subsequently extended to all divisions of the province. This rainfall lasted until the 13th. The fall was heaviest in Orissa on the 6th and 7th, in Chota Nagpur on the 9th and in Bihar and North Bengal on the 10th. The following gives the falls exceeding three inches in 24 hours:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Angul	Talchar	6th October	5·81
Orissa Tributary Mahals.	Kunjabongarh	,, ,,	5·58
Puri	Kanas	,, ,,	4·30
Cuttack	Jagatsingpur	,, ,,	4·08
Puri	Satpara	,, ,,	3·45
Cuttack	Jajpur	,, ,,	3·20
Puri	Gop	,, ,,	3·03
Do.	Khurda	7th ,,	9·60
Cuttack	Banki	,, ,,	8·44
Puri	Kanas	,, ,,	7·53
Angul	Dhenkanal	,, ,,	5·10
Do.	Baisenga	,, ,,	5·08
Cuttack	Salipur	,, ,,	4·85
Puri	Bhanpur	,, ,,	4·80
Do.	Nayagarh	,, ,,	4·79
Puri	Ranpur	7th October	4·12
Cuttack	Cuttack	,, ,,	4·02
Shahabad	Bhabhua	9th ,,	5·61
Do.	Monaharpur	,, ,,	4·20
Monghyr	Jamalpur	,, ,,	3·76
Sonthal Parganas	Rajmahal	,, ,,	3·24
Do.	Barharwa	,, ,,	3·10
Shahabad	Khiri	,, ,,	3·05
Do.	Bassowan	10th ,,	6·35
Bhagalpur	Bhagalpur	,, ,,	5·09
Cooch Behar	Mickliganj	,, ,,	3·64
Bhagalpur	Banka	,, ,,	3·34
Monghyr	Monghyr	,, ,,	3·30
Do.	Khargpur	,, ,,	3·18
Sonthal Parganas	Godda	,, ,,	3·09
Do.	Mohagama	,, ,,	3·09
Shahabad	Khiri	,, ,,	3·07

With the cessation of the rainfall occassioned by this storm, the rains of the south-west monsoon season of 1900 practically ceased over Bengal, but several stations in East Bengal and Orissa received showers between the 24th and the 26th, when the second storm of the month was traversing the Bay. The following were the heaviest amounts recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tippera	Laksam	24th October	1·24
Noakhali	Harishpur	,, ,,	1·24
Puri	Gop	,, ,,	1·20
	Do.	25th ,,	3·40
	Bhanpur	,, ,,	1·68
	Puri	,, ,,	1·65
	Satpara	,, ,,	1·20
Backergunge	Pirojpur	,, ,,	1·08
	Bhola	26th ,,	4·10
	Barisal	,, ,,	1·40
Noakhali	Hatya	,, ,,	1·15
	Lakhipur	,, ,,	1·10

The rainfall of the month was in moderate excess in Orissa, normal in Bihar, but was in more or less considerable defect in other parts of the province. This is shown below:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal	Average actual, October 1900.	Average normal, October.
	Inches.	Inches.	Inches.			
Eastern Bengal . .	2·20	5·63	—3·43	—61	3·8	6·0
Deltaic Bengal . .	2·62	4·51	—1·89	—42	3·7	5·5
Central Bengal . .	1·43	3·56	—2·13	—60	2·4	4·4
North Bengal . .	1·62	4·60	—2·98	—65	2·4	4·1
Bengal Hills . .	0·90	6·16	—5·26	—85	2·4	5·9
Orissa	7·47	5·85	+1·62	+28	5·9	6·7
Chota Nagpur . .	2·17	2·90	—0·73	—25	3·4	3·9
South Bihar . . .	2·68	2·60	+0·08	+ 3	2·5	2·8
North Bihar . .	2·30	2·79	—0·49	—18	2·9	2·7

Assam received showers during the first half of the month and again in some places between the 24th and the 26th. The most general showers were between the 8th and the 12th, when the following amounts exceeding 2″ in 24 hours were recorded:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
CACHAR . . .	Maibong . . .	8th October.	2·60
	Kukicherra . .	9th ,,	4·30
	Koyab . . .	,, ,,	2·61
LUSHAI HILLS . .	Tenzol . . .	,, ,,	2·60
KHASI AND JAINTIA HILLS.	Cherra Poonjee .	10th ,,	6·75
NOWGONG . . .	Kuturi . . .	,, ,,	3·38
SIBSAGAR . . .	Sibsagar . . .	,, ,,	2·87
LAKHIMPUR . .	Dhakuakhana . .	,, ,,	2·65
CACHAR . . .	Bikrampur . .	,, ,,	2·57
SIBSAGAR . . .	Daflating . . .	,, ,,	2·18
LAKHIMPUR . .	Jaipur . . .	11th ,,	3·04
SIBSAGAR . . .	Nigriting . . .	,, ,,	2·40
LAKHIMPUR . .	Margherita . .	,, ,,	2·36
SIBSAGAR . . .	Jorhat . . .	,, ,,	2·15
LAKHIMPUR . .	North Lakhimpur .	12th ,,	2·92

The total rainfall of the province was only about half the average, as is shown by the following statement:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.	Average actual, October 1900.	Average normal October.
	Inches.	Inches.	Inches.			
Assam Surma . .	2·15	6·79	—4·64	—68	3·6	6·9
,, Hills . .	4·57	7·73	—3·16	—41	7·8	8·6
,, Brahmaputra .	2·52	4·66	—2·14	—46	3·7	6·2

The North-Western Provinces received showers between the 8th and the 11th from the first storm of the month. The amounts were very heavy in the south-east districts, which were traversed by the storm centre, and exceeded 4″ in 24 hours at the stations for which data are given below:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MIRZAPUR . . .	Dudhi . . .	8th October.	5·32
BENARES . . .	Chandauli . .	9th ,,	9·11
MIRZAPUR . .	Chakia . . .	,, ,,	7·82
	Robertsganj . .	,, ,,	7·34
GHAZIPUR . . .	Zamania . . .	,, ,,	6·60
MIRZAPUR . . .	Chunar . . .	,, ,,	6·15
GHAZIPUR . . .	Ghazipur . . .	,, ,,	6·12
BENARES . . .	Benares . . .	,, ,,	5·56
GHAZIPUR . . .	Sayyidpur Bhitari .	,, ,,	5·06
JAUNPUR . . .	Kerakat . . .	,, ,,	4·27
AZAMGARH . .	Muhammadabad .	,, ,,	4·26
	Azamgarh . .	,, ,,	4·06
	Devgaon . . .	,, ,,	4·05
BENARES . . .	Gangapur . .	,, ,,	4·03

After this fall the rains entirely ceased and the south-west monsoon of 1900 thus lasted till the 12th October, an unusually late date for this region. The storm rainfall was wholly confined to the storm track, the weather in other parts of the North-Western Provinces having been almost rainless, so that, while the eastern districts reported normal or excessive rain, the remaining districts were from 60 per

cent. to 90 per cent. in defect. The following gives data for the different divisions of the North-Western Provinces:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.	Average actual, October 1900.	Average normal, October.
	Inches.	Inches.	Inches.			
North-Western Provinces, East.	3·93	2·18	+1·75	+80	2·3	2·0
South Oudh . .	0·50	1·60	—1·10	—69	1·0	1·6
North Oudh . .	0·61	1·61	—1·00	—62	1·2	1·5
North-Western Provinces, Central.	0·10	1·04	—0·94	—90	0·2	1·2
North-Western Provinces, West.	0·07	0·54	—0·47	—87	0·2	0·7
North-Western Provinces, East Submontane.	3·40	2·87	+0·53	+18	4·1	2·1
North-Western Provinces, West Submontane.	0·08	0·83	—0·75	—90	0·2	0·8
North-Western Provinces, Hills.	0·27	1·51	—1·24	—82	0·8	1·6

Light showers were received during the third week of the month in the Punjab. The rainfall due to these showers was heaviest in the North Punjab, where the total fall amounted to nearly half an inch and was just normal. Elsewhere the fall was more or less in considerable defect, as is shown below :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.	Average actual, October 1900.	Average normal, October.
	Inch.	Inch.	Inch.			
South-East Punjab .	0·17	0·36	—0·19	—53	0·5	0·5
South Punjab . .	0·09	0·19	—0·10	—53	0·3	0·5
Central Punjab . .	0·07	0·35	—0·28	—80	0·1	0·6
Punjab Submontane .	0·03	0·38	—0·35	—92	0·1	0·6
Punjab Hills . .	0·22	0·90	—0·68	—76	0·7	1·3
North Punjab . .	0·48	0·48	0	0	1·1	0·9
West Punjab . .	0·07	0·10	—0·03	—30	0·3	0·3

Light showers of no importance were received in Baluchistan at the same time that the rain fell in the Punjab. In Kashmir there were two periods of rainfall. The first occurred between the 4th and the 6th, when the following amounts of more than 1″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kashmir . .	Utar Machhipore . .	4th October .	1·12
	Nagam . . .	" " .	1·11
	Punch	" " .	1·08
	Gulmarg . . .	5th " .	1·68
	Uri	" " .	1·46
	Kotli	" " .	1·04

The second showery period lasted from the 19th to the 27th. Rain was more general than during the preceding period, but the falls were lighter equalling or exceeding 1″ only at the following places :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Kashmir . .	Domel	19th October .	1·00
	Kishtwar . . .	20th " .	1·32
	Karnah . . .	23rd " .	1·00

A few showers fell in Eastern Rajputana between the 20th and to the 23rd, the amount exceeding 1″ in 24 hours at the three following stations :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Bharatpur .	Paharee . . .	21st October .	1·10
	Kaman . . .	22nd " .	1·17
Alwar . . .	Ramgarh . . .	" " .	1·05

In the east of Central India there was one burst of rain between the 7th and the 11th, coinciding with the passage of the first cyclonic storm of the month. The fall

was heavy at Bardi (Rewah) and exceeded 1″ at two other stations. The following gives data:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
REWAH	Sohagpur	7th October	1·50
BUNDELKHAND	Ajaigarh	8th "	1·10
REWAH	Bardi	9th "	4·77

There were three periods of rainfall over the Konkan, Karnatak and South Deccan divisions of the Bombay Presidency, but in other parts of Bombay the month was rainless throughout. The first period occurred on the 1st and 2nd during which the following falls exceeding 1″ in 24 hours were recorded:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BIJAPUR	Hungund	1st October	1·87
DHARWAR	Navalgund	" "	1·85
SATARA	Satara	" "	1·25
BELGAUM	Athni	" "	1·06
	Saundatti	" "	1·04
DHARWAR	Ranebennur	2nd "	2·12
	Savnur	" "	1·95
BELGAUM	Chandgad	" "	1·57
DHARWAR	Haveri	" "	1·55
BIJAPUR	Bagevadi	" "	1·42
NORTH CANARA	Yellapur	" "	1·23
BELGAUM	Belgaum	" "	1·06
BIJAPUR	Bagal Kot	" "	1·04

The second period lasted from the 14th to the 16th and the rainfall was heaviest in the Karnatak Division where the following falls exceeding 2″ in 24 hours were recorded:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BIJAPUR	Hungund.	15th October	3·60
DHARWAR	Mundargi	" "	3·00

The third period occurred during the last week of the month and the rainfall was heaviest in Kolhapur. The following gives the falls exceeding 1″ in 24 hours:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NORTH CANARA	Siddapur	26th October	1·39
DHARWAR	Kod	" "	1·13
	Hangal	" "	1·10
POONA	Poona	27th "	1·70
	Khed	" "	1·42
SHOLAPUR	Sangola	28th "	3·09
POONA	Maval	" "	2·62
KOLHAPUR AND OTHER SOUTHERN MARATHA COUNTRY STATES.	Shirol	" "	2·61
Do. Do.	Miraj	" "	2·10
SHOLAPUR	Sholapur	" "	1·69
KOLHAPUR AND OTHER SOUTHERN MARATHA COUNTRY STATES.	Kurundvad	" "	1·55
SATARA	Medha	" "	1·21
SHOLAPUR	Madha	" "	1·05
POONA	Telegaon Dabhada	" "	1·02
NORTH CANARA	Bhatkal	29th "	1·63
KOLABA	Mahad	" "	1·10

The total rainfall of the Presidency was very deficient and in the divisions of Gujarat, Kathiawar and Sind no rain whatever fell. The following gives comparative data for the six meteorological and rainfall divisions of the Presidency:—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.	Average actual, October 1900.	Average normal, October.
	Inch.	Inches.	Inches.			
Konkan	0·55	5·63	—5·08	— 90	1·2	7·6
Bombay Deccan	0·97	4·39	—3·42	— 78	1·5	6·4
Khandesh	0·06	3·61	—3·55	— 98	0·2	5·6
Gujarat	0	1·36	—1·36	—100	0	2·3
Kathiawar and Cutch	0	0·69	—0·69	—100	0	0·4
Sind	0	0·03	—0·03	—100	0	...

All the rain which fell in the Central Provinces was received in the eastern division and from the first cyclonic

storm of the month. In the direct path of the storm, as was noticed in the case of the eastern districts of the North-Western Provinces, the rainfall was heavy, but the fall was strictly confined to the immediate neighbourhood of the storm's path. The foollwing are the falls exceeding 1″ in 24 hours which were recorded over the Central Provinces at this time :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SAMBALPUR	Sarangarh	7th October	1·41
RAIPUR	Raipur	8th "	5·85
BILASPUR	Mungeli	" "	4·35
RAIPUR	Simga	" "	4·25
BILASPUR	Pendra	" "	3·57
	Bilaspur	" "	3·49
	Janjgir	" "	3·38
	Pandaria	" "	3·23
	Korba	" "	2·84
RAIPUR	Drug	" "	2·34
SAMBALPUR	Sarangarh	" "	1·50
RAIPUR	Dhamtari	" "	1·25
BILASPUR	Pendra	9th "	1·95

These large amounts occasioned an excess of rain on the mean of the month over the eastern division of the Central Provinces, while in the western division no rain whatever was received and in the central division only about one-eighth of the normal amount. The following gives comparative data for the three rainfall divisions of the Central Provinces and for Berar :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.	Average actual, October 1900.	Average normal, October.
	Inches.	Inches.	Inches.			
Central Provinces West	0	2·08	−2·08	−100	0	2·6
" " Central	0·24	1·85	−1·61	− 87	0·4	2·4
" " East	3·53	2·06	+1·47	+ 71	2·5	2·6
Berar	0	2·49	−2·49	−100	0	...

Rain was more general and heavier in Madras than in other parts of India. There were three periods of general rain in the east and centre of the Presidency, *viz.*, between the 4th and the 8th, the 16th and the 19th and the 24th and the 30th, and in the south the month's fall was about normal. In Malabar and South Canara there was rain between the 1st and the 4th, between the 12th and the 22nd and between the 27th and the 31st. The falls were not generally very heavy and the total fall of the month was only about two-thirds of the normal, but the following falls exceeding 4″ in 24 hours were recorded on the following dates :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SOUTH CANARA	Beltangadi	15th October	4·10
MALABAR	Cherpulcherry	18th "	4·30
TRAVANCORE STATE	Shertalley	19th "	4·04
DITTO.	Kartigapally	20th "	4·12

The following gives comparative data for the districts in the Malabar division :—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
MALABAR	Malabar	7·31	9·25	−1·94	−21
	South Canara	4·79	9·49	−4·70	−50

In South-Central Madras rain fell from the 1st to the 4th; the 14th to the 20th; and the 24th to the 31st. The fall on the 1st was heavy and general, but the total rainfall of the month was about normal, as is shown by the following comparative data for the two districts forming this division :—

DIVISION.	DISTRICT.	RAINFALL.			
		Average actual, October 1900.	Average normal, October.	Variation of actual, from normal October 1900.	Percentage variation from normal.
		Inches.	Inches.	Inch.	
MADRAS SOUTH CENTRAL.	Salem	5·28	5·89	−0·61	−10
DITTO.	Coimbatore	6·13	5·66	+0·47	+ 8

In South Madras, as mentioned above, the rain fell during the first three days of the month, the middle week and the last three days of the month, and was slightly heavier

than usual. The following gives data for the two districts in this division :—

Division.	District.	Rainfall. Average actual October 1900.	Average normal, October 1900.	Variation of actual from normal, October 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
South Madras	Madura	7·13	7·32	— 0·19	— 3
	Tinnevelly	8·21	6·18	+ 2·03	+33

The rainfall was heaviest during the last rainfall period when the second cyclonic storm of the month was affecting the weather and the following falls exceeding 4″ in 24 hours were then recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tinnevelly	Arasadi	28th October	5·30
	Tuticorin	" "	4·83
Madura	Morekulam	" "	4·50
Tinnevelly	Srivelliputtur	" "	4·20

The central division of Madras had less rainfall than other parts of the Presidency, but the fall occurred under the same general conditions. The following gives data for the four districts of this division :—

Division.	District.	Rainfall. Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Central Madras.	Cuddapah	3·04	5·77	— 2·73	—47
	Anantapur	3·01	4·72	— 1·71	—36
	Bellary	2·79	4·30	— 1·51	—35
	Kurnool	1·26	4·34	— 3·08	—71

The north division of the east coast had three well-defined rainfall periods. During the first (1st to 8th) the rainfall was heavy and general; during the second (11th to 19th) light and scattered, and during the last (24th to 29th) general again. The rainfall was very heavy in Ganjam on the 7th and in the Vizagapatam, Godavari and Kistna districts on the 25th. The following shows the principal falls :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Ganjam	Daringabadi	6th October	9·60
	Udayagiri	7th "	10·90
	Rambha	" "	8·10
	Russellkonda	" "	7·22
	Aska	" "	6·90
	Berhampur	" "	6·88
	Chatrapur	" "	6·79
	Ramagiri	" "	6·60
	Purushottapur	" "	6·36
	Gopalpur	" "	6·32
	Balliguda	" "	6·31
	Surada	" "	5·60
	Ichchhapuram	" "	5·10
Vizagapatam	Waltair	25th "	4·65
Godavari	Coringa	" "	3·59
	Rajahmundry	" "	3·30
	Amalapuram	" "	2·91
Kistna	Masulipatam	" "	2·72
Godavari	Kovvur	" "	2·63
Do.	Cocanada	" "	2·47
Kistna	Avanigadda	" "	2·41
Do.	Bapatla	" "	2·29
Godavari	Narsapuram	" "	2·20
Do.	Alamur	" "	2·15
Vizagapatam	Bimlipatam	" "	2·08

The total fall of the month in this division was about three quarters of the normal average, as is shown by the following data for the four districts contained in this division :—

Division.	District.	Rainfall. Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
East Coast North.	Ganjam	9·54	7·96	+ 1·58	+ 20
	Vizagapatam	3·94	7·64	—3·70	—48
	Godavari	4·75	7·63	—2·88	—38
	Kistna	3·52	5·81	—2·29	—39

The central division of the east coast received light showers at the beginning of the month, moderate showers in the middle and moderate to heavy rain at the end. The largest amounts were received on the 24th, when the following considerable falls in 24 hours were recorded :—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 24th October.
		Inches.
NELLORE	Gudur	4·45
	Venkatagiri	4·25
	Nellore	3·75
	Rapur	3·50
	Tada	3·50
	Kistnapatam	3·41
	Sulurpeta	3·35
	Kota	2·83
	Dugarazpatnam	2·76

The following gives comparative data for the Nellore district :—

DISTRICT.	RAINFALL.			
	Average actual, October. 1900.	Average normal, October.	Variation of actual from normal, October. 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Nellore	5·66	8·68	—3·02	—35

In the south division of the east coast there were showers during the first week of the month, another burst of showery weather between the 17th and the 20th, and a heavy burst of rain on the 24th and 25th, from the second storm of the month. The following shows the falls exceeding 4″ in 24 hours which were registered during this last burst :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
SOUTH ARCOT	Merkanam	24th October	9·26
CHINGLEPUT	Cheyur	" "	8·00
	Madurantakam	" "	7·53
SOUTH ARCOT	Tindivanam	" "	7·31
CHINGLEPUT	Chingleput	" "	6·25
NORTH ARCOT	Arconam	" "	5·59
SOUTH ARCOT	Vinur	" "	5·20
CHINGLEPUT	Conjeeveram	" "	5·15
	Sriperumbdur	" "	4·71
	Uttramerur	" "	4·65
SOUTH ARCOT	Cuddalore	" "	4·64
CHINGLEPUT	Kovelong	" "	4·61
NORTH ARCOT	Puttur	" "	4·52
	Tiruttani	" "	4·47
SOUTH ARCOT	Gingee	" "	4·34
NORTH ARCOT	Tiruvettiyur	" "	4·12
CHINGLEPUT	Poomallee	" "	4·12
SOUTH ARCOT	Vellupuram	" "	4·04

The total rainfall of the month was very nearly normal Comparative data for the districts composing this division are given below :—

DIVISION.	District.	RAINFALL.			
		Average actual, October 1900.	Average normal, October.	Variation of actual from normal, October 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
EAST COAST SOUTH.	Madras	9·08	10·75	—1·67	—16
	Chingleput	9·24	9·42	—0·18	— 2
	North Arcot	5·30	6·80	—1·50	—22
	South Arcot	7·03	8·57	—1·54	—18
	Tanjore	6·95	8·83	—1·98	—22
	Trichinopoly	5·59	7·49	—1·90	—25

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	I.—Burma Coast and Bay Islands.				+·007								88·2	+0·8	75·7	+1·9	82·0	+1·4	12·4				
1	Tenasserim and Bay Islands.	Port Blair	61	29·874	+·020	29·866	29·961	26th	29·759	3rd	·202	80·6	87·2		77·6		82·4		9·6	91·7	19th	75·4	1st
		Mergui	96	29·841	+·013	29·869	29·909	24th	29·763	1st	·146	80·6	87·1	+0·3	74·7	+3·4	80·9	+1·9	12·4	91·1	4 days	72·4	1st
		Tavoy	26	29·903	−·017	29·860	29·973	24th	29·819	1st	·154	79·2	88·7	+1·2	74·5	+1·4	81·6	+1·3	14·2	92·7	27th	72·5	18th
		Moulmein	94	29·842	−·004	29·873	29·929	22nd	29·739	3rd	·190	80·3	89·4	+1·2	75·7	+1·3	82·6	+1·3	13·7	93·5	21st & 28th.	71·8	14th
2	Lower Burma	Rangoon	41	29·893	0	29·872	29·977	26th	29·776	3rd	·201	79·8	87·9	+0·7	76·0	+0·4	82·0	+0·6	11·9	90·1	15th, 16th & 27th.	72·9	5th
		Bassein	27	29·914	+·014	29·876	30·009	26th	29·794	3rd	·215	79·8	88·0	+1·0	77·2	+2·2	82·6	+1·6	10·8	90·2	28th	75·6	20th
		Diamond Island	41	29·895	+·017	29·869	29·990	26th	29·760	3rd	·230	82·4	87·1	+0·7	79·1	+2·9	83·1	+1·8	8·0	91·6	22nd & 28th.	76·2	23rd
5	Arakan	Akyab	20	29·913	+·016	29·876	30·012	26th	29·757	5th	·255	79·4	88·2	+0·3	73·3	?	80·8	?	14·9	90·9	3rd & 6th.	65·0	19th
3	Central Burma	Toungoo	183	29·747	+·003	29·874	29·839	26th	29·632	3rd	·207	78·9	89·8	+0·1	73·3	?	81·6	?	16·5	94·6	3rd	70·1	1st
	II.—Burma Inland				+·027								89·7	−0·5	73·4	+0·6	81·6	+0·1	16·3				
3	Central Burma	Thayetmyo	130	29·813	+·021	29·888	29·929	26th	29·672	4th	·257	79·8	90·1	0	74·2	+0·2	82·2	+0·1	15·9	92·9	1st, 16th & 17th.	70·4	20th
4	Upper Burma	Minbu	165	29·789	+·027	29·899	29·911	26th	29·693	10th	·218	78·7	90·1	−1·2	75·2	+0·8	82·7	−0·2	14·9	94·1	1st	71·1	31st
		Yamethin	657	29·283	+·015	29·895	29·389	26th	29·169	3rd	·220	78·4	90·3	−2·0	74·2	+1·0	82·3	−0·5	16·1	96·5	2nd	70·7	30th
		Mandalay	250	29·706	+·038	29·908	29·822	29th	29·604	1st	·218	79·7	92·7	+1·1	74·9	+0·2	83·8	+0·7	17·8	99·0	2nd	69·6	20th & 30th.
		Kindat	377	29·597	?	29·935	29·725	29th	29·485	8th	·240	75·9	87·2	0	71·7	+0·3	79·5	+0·2	15·5	92·3	13th	65·8	21st, 22nd & 29 th.
		Bhamo	381	29·574	+·035	29·916	29·699	26th	29·463	10th	·236	75·8	88·0	−0·8	70·3	+1·1	79·2	+0·2	17·7	95·5	2nd	61·1	31st
4(*)	Burma Hill Stations.	Maymyo										70·3	70·8		56·6		63·7		14·2	75·0	31st	48·0	20th
		Taunggyi										67·9	72·0	−5·8	59·2	+0·2	65·6	−2·8	12·8	74·7	17th	51·0	22nd
		Lashio										69·9	85·4	+2·7	64·0	+1·5	74·7	+2·1	21·4	90·5	7th	55·0	24th
	III.—Assam				+·035								88·2	+1·9	71·3	−0·8	79·7	+0·5	16·9				
7	Surma	Silchar	104	29·864	+·051	29·922	29·983	29th	29·721	5th	·262	77·6	91·5	+2·7	71·7	−0·7	81·6	+1·0	19·8	97·6	2nd	63·4	22nd
	Brahmaputra	Sibsagar	333	29·646	+·028	29·943	29·773	28th	29·506	9th	·267	73·1	85·6	+0·5	70·0	−0·9	77·8	−0·2	15·6	92·7	8th	61·4	27th
		Dhubri	115	29·840	+·025	29·912	29·971	26th	29·705	8th	·266	76·6	87·4	+2·4	72·2	−0·8	79·8	+0·8	15·2	92·2	8th	65·7	28th 30th & 31st.
	IV.—Bengal and Orissa				+·038								88·1	+0·5	72·7	−0·4	80·5	+0·1	15·4				
6	East Bengal	Chittagong	87	29·853	+·024	29·888	29·968	29th	29·717	5th	·251	79·4	88·2	+1·8	72·4	−1·3	80·3	+0·3	15·8	91·5	1st & 5th.	64·1	19th
		Noakhali	43	29·892		29·882	30·004	29th	29·751	5th	·253	79·1	88·0		72·0*		79·9*		16·0	90·7	1st & 2nd.	64·5	19th
		Comilla	36	29·914		29·898	30·029	29th	29·777	5th	·252	79·3	89·8		72·5		81·2		17·3	94·3	2nd	64·9	31st
		Sirajganj	49	29·888		29·887	30·005	29th	29·750	5th	·255	77·8	88·4		73·5		80·9		14·9	92·3	6th	66·3	31st
		Narayanganj	26	29·919	+·039	29·894	30·037	29th	29·775	5th	·262	80·0	88·8	+0·8	74·8	−0·3	81·8	+0·3	14·0	92·1	2nd	67·2	31st
		Barisal	13	29·933	?	29·891	30·055	29th	29·791	5th	·264	81·3	88·3	+0·8	74·8	+0·4	81·5	+0·6	13·5	92·3	13th	67·6	19th
		Mymensingh	59	29·885	+·041	29·896	29·998	28th	29·744	5th	·254	783	87·9	+1·1	73·1	0	80·5	+0·6	14·8	92·2	2nd	67·1	19th & 31st.
10	Deltaic Bengal	Faridpur	46	29·907		29·901	30·029	29th	29·761	5th	·268	79·8	87·9		73·7		80·9		14·2	91·3	2nd	65·9	30th
		Jessore	32	29·918	+·038	29·898	30·048	29th	29·762	5th	·286	80·2	87·9	?	74·3	−0·6	81·1	?	13·6	91·0	12th	65·7	31st
		Calcutta	21	29·930	+·040	29·897	30·070	29th	29·788	5th & 6th	·282	79·5	88·6	+2·0	74·5	+0·1	81·6	+1·1	14·1	92·6	14th	66·2	31st
		Saugor Island	25	29·910	+·028	29·880	30·054	30th	29·727	6th	·327	79·9	87·2	+0·4	75·8	−0·3	81·5	+0·1	11·4	90·9	5th	67·6	30th & 31st.
		Krishnagar	47	29·909		29·905	30·037	29th	29·772	9th	·265	79·7	89·0		73·2		81·1		15·8	91·8	12th & 14th.	63·7	31st
		Midnapore	149	29·975		29·893	29·934	29th	29·649	9th	·285	78·4	88·3		72·6		80·5		15·7	92·8	12th	63·2	30th

* Mean of 29 days.

I.

Stations in India, Burma, etc., in October, 1900.

Wind Direction. Number of winds from: Calm	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st October 1900.	Normal rainfall for period, 1st to 31st October.	Variation from normal of period, 1st to 31st October.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				6·74	9·57	−2·82					I.—Burma Coast and Bay Islands.		
	2	2	1	3	3	4	9	7	N 88° W	6·8		6·4	+ 6	89	·926	6·9	15			10·23	12·17	− 1·94	10·23	12·17	− 1·94	3·34	Port Blair	Tenasserim and Bay Islands.	1
									Calm	1·6	1·4	1·5	− 7	87	·889	4·5	10			9·08	14·32	− 5·24	9·08	14·32	− 5·24	2·05	Mergui.		
31						1	1		N 45° W	1·0				89	·892	2·7	9			4·51	10·13	− 5·62	4·51	10·13	− 5·62	0·93	Tavoy.		
27	1	1				5	2	1	S 78° E	1·4	1·6	1·7	− 6	86	·887	4·5	12	11·55	+ 0·45	9·12	8·10	+ 1·02	9·12	8·10	+ 1·02	3·11	Moulmein.		
	5	3	2	7			3	1	N 61° E	3·5		3·2	+ 9	91	·934	5·5	9	9·09	− 0·09	7·01	6·74	+ 0·27	7·01	6·74	+ 0·27	2·04	Rangoon	Lower Burma.	2
2	2	11	7	2	2	1		2	N 60° E	3·3		2·5	+32	91	·928	5·1	9	12·18	− 3·18	3·74	8·21	− 4·47	3·74	8·21	− 4·47	1·35	Bassein.		
13	2	6	5	3				1	N 70° E	8·0	8·0	6·4	+25	83	·929	5·6	5	11·60	− 6·60	2·92	9·22	− 6·30	2·92	9·22	− 6·30	0·92	Diamond Island.		
4	2	8	9	1	2	2	2		N 18° E	2·6		2·3	+13	89	·900	4·0	6	8·64	− 2·64	4·17	10·44	− 6·27	4·17	10·44	− 6·27	1·99	Akyab	Arakan.	5
	20	7	3		1			4	N	1·7	1·7	1·8	− 6	89	·894	6·8	9	10·55	− 1·55	9·92	6·76	+ 3·16	9·92	6·76	+ 3·16	6·07	Toungoo	Central Burma.	3
17	5	1		3	1															4·98	4·50	+ 0·48					II.—Burma Inland.		
10	5	1	1	4	5	2		3	S 38° E	2·1		3·1	−32	88	·896	3·7	6	7·91	− 1·91	4·67	4·24	+ 0·43	4·67	4·24	+ 0·43	2·49	Thayetmyo	Central Burma.	3
1	3			4	6	3	3	11	S 89° W	4·5	5·4			88	·875	5·4	6			6·45	3·04	+ 3·41	6·45	3·04	+ 3·41	1·97	Minbu	Upper Burma.	4
5	8	1		6	5	1		5	N 17° E	3·2	3·4			88	·863	6·3	6			3·92	4·74	− 0·82	3·92	4·74	− 0·82	1·97	Yamethin.		
9	5	1	2	2	4	3	1	4	N 59° W	4·3	4·3			85	·866	3·5	4			5·24	5·08	+ 0·16	5·24	5·08	+ 0·16	4·25	Mandalay.		
31									Calm	0·4	0·4			92	·827	6·4	12			5·88	6·15	− 0·27	5·88	6·15	− 0·27	1·57	Kindat.		
10	3	8	3	1			2	4	N 23° E	2·3	2·7			88	·789	6·3	9			3·71	3·76	− 0·05	3·71	3·76	− 0·05	1·46	Bhamo.		
														89	·658												Maymyo	Burma Hill Stations.	4(a)
	2	3	1	5	7	7	2	4	S 20° W					82	·565	3·2	12			4·71	5·59	− 0·88	4·71	5·59	− 0·88	1·05	Taunggyi.		
														91	·670	7·2	6			4·13	3·19	+ 0·94	4·13	3·19	+ 0·94	2·15	Lashio.		
																				3·13	5·00	−1·87					III.—Assam.		
28		1	1	1					E	0·9	1·5	2·1	−29	87	·838	5·5	2	7·75	− 5·75	0·59	6·65	− 6·06	0·59	6·65	− 6·06	0·24	Silchar	Surma.	7
26		4	1						N 53° E	1·3	1·2	2·1	−43	97	·797	4·0	8	7·30	+ 0·70	6·73	4·84	+ 1·89	6·73	4·84	+ 1·89	2·87	Sibsagar	Brahmaputra.	9
3	1	6	12	1	2	3	2	1	N 85° E	2·9	3·4	2·9	+17	84	·784	2·2	3	3·93	− 0·93	2·07	3·50	− 1·43	2·07	3·50	− 1·43	1·23	Dhubri.		
																				2·61	5·18	−2·57					IV.—Bengal and Orissa.		
	4	19	5	2				1	N 48° E	2·3	2·8	3·0	− 7	85	·858	4·1	4	7·00	− 3·00	1·51	6·24	− 4·73	1·51	6·24	− 4·73	0·47	Chittagong	East Bengal.	6
	5	8	7	3	1	3	2	2	N 52° E	2·0	1·9			87	·877	2·5	5	7·31	− 2·31	4·83	7·70	− 2·87	4·83	7·70	− 2·87	1·37	Noakhali.		
13	8	2	3		4	1			N 39° E	2·3				83	·834	2·8	3	5·83	− 2·83	3·09	5·20	− 2·11	3·09	5·20	− 2·11	2·30	Comilla.		
18	5				4	1		3	N 56° W	0·5	0·5			87	·826	2·5	4	4·88	− 0·88	1·44	4·23	− 2·79	1·44	4·23	− 2·79	0·58	Sirajganj.		
1	7	6	6	4	1	2	1	3	N 48° E	2·9		2·3	+26	83	·857	2·9	2	5·46	− 3·46	0·46	4·42	− 3·96	0·46	4·42	− 3·96	0·28	Narayanganj.		
2	7	5	1	1	2	3	1	9	N 18° W	2·0	2·0			87	·931	3·7	4	6·23	− 2·23	3·88	5·61	− 1·73	3·88	5·61	− 1·73	1·85	Barisal.		
16			2	2		1			S 56° E	0	0			84	·814	[illegible]	5	5·77	− 0·77	1·82	5·62	− 3·80	1·82	5·62	− 3·80	0·85	Mymensingh.		
23	4		1	1	2				N 63° E	1·3	1·6			86	·880	2·5	5	5·23	− 0·23	4·33	4·09	+ 0·24	4·33	4·09	+ 0·24	2·02	Faridpur	Deltaic Bengal.	13
21	2	3	1	2	1			1	N 63° E	0·6	0·6	2·1	−71	83	·859	3·8	4	5·92	− 1·92	5·96	4·55	+ 1·41	5·96	4·55	+ 1·41	5·03	Jessore.		
4	8	4	3	2	2	3	2	3	N 8° E	3·1	3·3	3·2	+ 3	83	·841	4·2	4	6·04	− 2·04	0·82	4·39	− 3·57	0·82	4·39	− 3·57	0·24	Calcutta.		
	8	8		2	1	3	4	5	N 13° W	3·8		6·5	+35	86	·882	5·4	3	8·15	− 0·15	6·35	9·14	− 2·79	6·35	9·14	− 2·79	1·73	Saugor Island.		
1	6	2	2	7	1		3	9	N 7° W	2·6				79	·815	3·5	2	5·35	− 3·35	0·70	4·22	− 3·52	0·70	4·22	− 3·52	0·37	Krishnagar.		
8	13	3		3	1			3	N 8° E	1·6	2·1			78	·766	1·8	4	5·15	− 1·15	1·98	4·30	− 2·32	1·98	4·30	− 2·32	1·27	Midnapore.		

Ta

Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
11	Central Bengal	Bankura	298	29·625		29·879	29·764	29th	29·476	9th & 10th.	·288	77·4	88·6		72·2		80·4		16·4	92·1	12th	64·2	31st
		Raniganj	334	29·615		29·905	29·752	29th	29·466	9th	·286	76·6	88·1		71·2		79·7		16·9	91·2	12th	63·5	31st
		Burdwan	99	29·859	+·044	29·907	29·994	29th	29·718	5th	·276	79·2	89·2	+0·5	74·5	−0·2	81·9	+0·2	14·7	92·9	14th	66·8	31st
		Naya Dumka	489	29·463		29·919	29·588	29th	29·303	10th	·285	76·8	86·8		69·5		78·2		17·3	90·0	12th	61·9	31st
		Berhampore	67	29·884	?	29·900	30·012	29th	29·732	10th	·280	78·5	87·5	−0·2	74·0	−0·5	80·7	−0·4	13·5	90·8	12th	66·7	30th & 31st.
		Rampur Boalia.	70	29·878*		29·898*	30·020	29th	29·746	8th	·274	79·7	87·4		73·2		80·3		14·2	90·1	10th & 12th.	64·6	29th
		Malda	72	29·886		29·910	30·014	29th	29·748	10th	·266	78·5	87·9		71·7		79·8		16·2	90·1	5 days.	63·0	31st
		Bogra	61	29·890		29·904	30·017	26th	29·747	5th	·270	79·5	88·4	+1·5	72·2	−0·1	80·3	+0·7	16·2	91·7	2nd	64·2	31st
12	North Bengal	Dinajpur	123	29·831	+·047	29·911	29·955	26th	29·695	8th	·260	77·5	87·7	+0·3	70·0	−2·1	78·9	−0·9	17·7	91·3	2nd & 6th.	60·4	31st
		Rangpur	123	29·831		29·911	29·950	26th	29·699	8th	·251	77·7	88·9		68·0		78·5		20·9	92·7	2nd	59·3	31st
		Jalpaiguri	284	29·683	+·054	29·931	29·804	26th	29·549	8th	·255	74·5	86·9	+0·6	69·1	−0·1	78·0	+0·3	17·8	90·9	3rd	61·1	31st
		Cooch Behar	156	29·815		29·930	29·945	26th	29·679	8th	·266	76·1	88·2		70·3		79·3		17·9	93·4	2nd	61·6	31st
17	North Bihar	Purnea	125	29·834	+·048	29·916	29·965	26th	29·684	9th	·281	74·1†	87·0	−0·5	69·0	−2·2	78·0	−1·4	18·0	90·2	4 days	62·3	21st
14	Orissa	Balasore	46	29·901	?	29·894	30·055	30th	29·705	6th	·350	77·8	87·9	+0·1	73·3	+0·2	80·7	+0·2	14·6	91·4	12th	62·7	31st
		False Point.	21	29·913	+·027	29·876	30·076	30th	29·567	6th	·509	80·2	86·5	−0·8	74·4†	−0·3	80·5†	−0·6	12·1	89·5	12th, 14th & 15th.	64·5	31st
		Cuttack	80	29·856	+·028	29·880	30·019	30th	29·558	6th	·461	78·6	89·6	−0·3	75·2	+0·7	82·4	+0·2	14·4	93·4	12th	66·7	31st
		Puri	20	29·912		29·875	30·072	30th	29·528	6th	·544	80·6	89·3		76·8		83·1		12·5	93·7	14th	69·6	31st
	V.—Gangetic Plain and Chota Nagpur.				+·047								86·9	−1·5	67·9	−1·3	77·4	−1·4	18·9				
15	Chota Nagpur	Hazaribagh.	2,007	27·947*	+·050*	29·933*	28·070	29th	27·754	9th	·316	72·1	81·7	−1·4	65·7	−1·1	73·7	−1·3	16·0	84·2	5th, 6th & 13th.	60·2	30th
		Ranchi	2,128	27·813	+·042	29·915	27·942	29th	27·626	9th	·316	71·7	81·1	−1·6	65·4	0	73·3	−0·8	15·7	84·7	13th	61·0	31st
		Daltonganj	730?	29·210		29·919	29·371	29th	28·943	9th	·428	69·0	86·8		63·5		75·2		23·3	90·1	19th	57·0	29th, 30th & 31st.
		Purulia		29·133		29·908	29·265	30th	28·956	9th	·309	76·4	87·0		71·8		79·4		15·2	90·5	13th	64·4	30th
		Chaibassa	760	28·175		29·896	29·314	29th	28·980	9th	·334	76·1	86·7	−1·4	69·7	−0·6	78·2	−1·0	17·0	90·6	12th	61·5	31st
16	South Bihar	Gaya	375	29·576	+·043	29·915	29·725	29th	29·380	9th	·345	74·5†	86·7†	−2·6	68·4†	−2·5†	77·6†	−2·6†	18·3†	90·2	16th & 17th.	63·7	29th & 31st.
		Dehri	351	29·597		29·910	29·757	29th	29·380	9th	·377	75·7	86·3		70·0		78·2		16·3	89·3	5th	63·5	29th
		Patna	183	29·781	+·043	29·920	29·935	29th	29·586	9th	·349	77·6	87·0	−1·3	71·3	−1·2	79·2	−1·3	15·7	90·5	9th & 16th.	65·3	4 days
		Arrah	190	29·751		29·897	29·908	29th	29·561	10th	·347	76·2	86·9		69·5		78·2		17·4	90·5	6th & 7th.	61·0	28th
		Buxar	239	29·715		29·914	29·869	29th	29·528	9th	·341	76·6	86·9		70·0		78·5		16·9	90·0	6th & 7th.	64·0	31st
17	North Bihar	Bhagalpur	160	29·796		29·913	29·936	29th	29·632	8th	·304	78·0	87·7		70·7		79·2		17·0	91·2	6th	62·1	31st
		Darbhanga	166	29·780	?	29·903	29·923	29th	29·619	8th	·304	77·1	86·6	+0·3	71·8	−1·6	79·2	−0·7	14·8	90·3	6th & 7th.	64·4	31st
		Muzaffarpur	178	29·789		29·924	29·920	26th	29·624	9th	·296	77·1	86·4		69·2		77·8		17·2	90·7	7th	60·3	31st
		Motihari	224	29·740		29·926	29·886	29th	29·581	8th	·305	76·7	85·8		67·9		76·9		17·9	91·0	7th	57·9	31st
		Chapra	181	29·771		29·910	29·926	29th	29·580	9th	·346	76·3	87·6		69·2		78·4		18·4	92·3	7th	61·1	29th
18	N.-W. Provinces (East).	Benares	267	29·679	+·041	29·908	29·838	29th	29·466	9th	·372	73·8	87·0	−2·9	67·2	−1·5	77·1	−2·2	19·8	90·3	7th	59·4	28th
		Allahabad	309	29·644	+·046	29·914	29·797	29th	29·463	8th	·334	75·5	88·3	−1·6	66·3	−1·3	77·3	−1·5	22·0	91·6	18th, 20th & 21st.	58·4	27th
23	N.-W. Provinces (East Sub-montane).	Gorakhpur	256	29·701	+·058	29·921	29·859	29th	29·549	9th	·310	76·0	86·1	−2·6	69·3	−0·9	77·7	−1·8	16·8	91·5	7th	62·2	29th & 31st.
19	South Oudh	Lucknow	368	29·574	+·040	29·910	29·737	29th	29·432	8th	·305	73·5	89·8	−1·1	64·5	−1·1	77·2	−1·1	25·3	93·3	15th	56·2	27th
20	North Oudh	Bahraich	403	29·541	+·054	29·913	29·708	29th	29·403	8th	·305	75·6	88·7	−1·1	67·0	−0·4	77·9	−0·8	21·7	91·6	5th, 6th & 7th.	58·5	27th
21	N.-W. Provinces (Central).	Cawnpore	416	29·530	+·041	29·911	29·684	29th	29·391	8th	·293	73·1	90·3	−0·2	63·8	−2·4	77·1	−1·3	26·5	93·3	14th & 15th.	54·5	27th & 28th.
		Mainpuri	516	29·427	+·056	29·918	29·574	29th	29·293	9th	·281	70·5	89·9	−2·4	61·9	−2·7	75·9	−2·6	28·0	92·3	14th & 21st.	55·1	27th

* Mean of 29 days. † Mean of 30 days.

I—*continued.*

Stations in India, Burma, etc., in October 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st October 1900.	Normal rainfall for period, 1st to 31st October.	Variation from normal of period, 1st to 31st October.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
26	1		1	1			2		N 45° E	1·6	1·9			74	·709	3·1	1	5·19	−4·19	0·25	3·82	−3·57	0·25	3·82	− 3·57	0·16	Bankura .	CENTRAL BENGAL.	11
9	3		2	2		2	2	11	N 45° W	1·2				79	·737	2·6	3	4·35	−1·35	0·99	3·31	−2·32	0·99	3·31	− 2·32	0·67	Raniganj.		
6	9	9	1	1		4		1	N 21° E	1·6	1·6	2·1	−24	79	·794	3·1	0	4·27	−4·27	0·15	3·61	−3·46	0·15	3·61	− 3·46	0·09	Burdwan.		
11	5	3	1	3	1		2	5	N 2° W	1·1	1·2			77	·715	2·6	5	4·88	+0·12	1·62	4·22	−2·60	1·62	4·22	− 2·60	0·62	Naya Dumka.		
23	4		1	1	2				N 63° E	1·0	1·1	2·1	−48	82	·806	3·6	2	5·43	−3·43	0·49	3·83	−3·34	0·49	3·83	− 3·34	0·23	Berhampore.		
6	6	7	1	3	1	5	1	1	N 31° E	2·3	2·3			77	·785	2·5†	2	5·19	−3·19	2·51	4·11	−1·60	2·51	4·11	− 1·60	2·28	Rampur Boalia.		
	8	1	1	3	5	2	2	9	N 41° W	1·3	1·2			81	·792	1·9	2	4·62	−2·62	0·91	4·42	−3·51	0·91	4·42	− 3·51	0·77	Malda.		
														79	·801	1·4	5	5·00	0	2·76	3·74	−0·98	2·76	3·74	− 0·98	1·81	Bogra.		
	4	10	2	3		7	2	3	N 18° E	2·4	2·8			82	·781	2·4	2	3·46	−1·46	0·45	4·55	−4·10	0·45	4·55	− 4·10	0·35	Dinajpur .	NORTH BENGAL.	12
2	2	12	7	1	2	1	3	1	N 56° E	1·7	1·8			85	·809	1·3	3	4·00	−1·00	1·98	5·44	−3·46	1·98	5·44	− 3·46	1·05	Rangpur.		
1	11	6	1	1		2	2	7	N 6° W	0·9	1·2			85	·732	1·0	2	4·81	−2·81	0·51	5·32	−4·81	0·51	5·32	− 4·81	0·33	Jalpaiguri.		
18		3	7	1			2		N 83° E	1·1	1·1			83	·754	2·4	2			1·17	5·98	−4·81	1·17	5·98	− 4·81	0·90	Cooch Behar.		
3	4	5	4	1	1	1	5	7	N 11° W	3·2	5·0	1·4	+257	94‡	·796‡	2·3	2	3·46	−1·46	1·33	3·57	−2·24	1·33	3·57	− 2·24	1·17	Purnea .	NORTH BIHAR.	17
11	7	3		1	2	1	2	4	N 18° W	3·0				83	·796	3·6	6	6·74	−0·74	3·36	6·13	−2·77	3·36	6·13	− 2·77	1·70	Balasore .	ORISSA.	14
	9	2	1	1	2	1	6	9	N 38° W	8·0	7·6	6·1	+25	85	·886	5·7	9	7·92	+1·08	7·42	9·19	−1·77	7·42	9·19	− 1·77	1·94	False Point.		
20	1	3	2		3	1		1	N 87° E	2·0		1·9	+ 5	80	·791	4·6	5	6·38	−1·38	8·72	5·64	+3·08	8·72	5·64	+ 3·08	4·71	Cuttack.		
7	12	3			2	1	1	5	N 11° W	?				80	·844	3·7	6	8·62	−2·62	6·59	8·90	−2·31	6·59	8·90	+ 2·31	2·59	Puri.		
																				2·02	2·56	−0·49					V.—Gangetic Plain and Chota Nagpur.		
2	6	1	3	1	2	4	8	4	N 66° W	5·3	4·8	5·0	− 4	68	·546	3·1	4	4·69	−0·69	3·45	3·41	+0·04	3·45	3·41	+ 0·04	1·48	Hazaribagh	CHOTA NAGPUR.	15
11	4	3	1	1	1	2	4	4	N 34° W	4·0	4·8			74	·586	3·5	5	4·73	+0·27	2·49	2·95	−0·46	2·49	2·95	− 0·46	1·26	Ranchi.		
16		2	4	5	2	2			S 53° E	2·0	2·3	4·1	−78	83	·598	1·5	3	3·19	−0·19	1·54	2·50	−0·96	1·54	2·50	− 0·96	1·05	Daltonganj.		
15	3	2	1	1	1		5	3	N 39° W	1·6				72	·666	1·9	3			1·04			1·04			0·39	Purulia.		
24		1		2		2	2		S 27° W	0·6	0·5			80	·737	2·0	3	4·46	−1·46	1·67	2·72	−1·05	1·67	2·72	− 1·05	0·75	Chaibassa.		
9		3			9	8	1	1	S 23° W	3·5	3·2	1·5	+113	75†	·635†	2·8	3	2·96	+0·04	1·78	2·27	−0·49	1·78	2·27	− 0·49	1·12	Gaya . .	SOUTH BIHAR.	16
1		1	2		11	12	3	1	S 29° W	5·0	5·8	2·7	+115	77	·688	2·5	3	2·77	+0·27	3·42	2·63	+0·79	3·42	2·63	+ 0·79	2·00	Dehri.		
1		5	3	1	1	13	5	2	S 53° W	2·3	2·7	1·9	+42	78	·747	2·6	2	3·19	−1·19	1·01	3·25	−2·24	1·01	3·25	− 2·24	0·58	Patna.		
3	1	1	2	2	7	6	9		S 39° W	1·8	1·9	1·8	+ 6	82	·744	1·8	2	3·62	−1·62	1·26	2·99	−1·73	1·26	2·99	− 1·73	0·77	Arrah.		
		1	4	3	4	5	14		S 51° W	4·1	3·7	3·1	+19	75	·689	2·7	2	3·04	−1·04	1·68	3·26	−1·58	1·68	3·26	− 1·58	0·84	Buxar.		
15	1	1	1	3	2	3	3	2	S 45° W	1·8	1·6			80	·768	2·2	2	3·12	−1·12	5·28	2·80	+2·48	5·28	2·80	+ 2·48	5·09	Bhagalpur .	NORTH BIHAR.	17
21	2	1	2	1			2	2	N	1·2		2·2	−45	83	·785	2·1	3	3·08	−0·08	0·90	2·84	−1·94	0·90	2·84	− 1·94	0·35	Darbhanga.		
10				1					S 45° E	0·1		0·2	−50	83	·784	1·3	4	2·81	+1·19	2·64	3·11	−0·47	2·64	3·11	− 0·47	1·15	Muzaffarpur.		
	1	13	2	4	1	4	1	5	N 45° E	2·2§		1·8	+22	86	·792	1·4	3	2·58	+0·42	2·32	3·39	−1·07	2·32	3·39	− 1·07	0·98	Motihari.		
10		1	3	2	1	12	1	1	S 27° W	1·6	2·0			82	·745	3·0	2	2·85	−0·85	0·95	3·08	−2·13	0·95	3·08	− 2·13	0·46	Chapra.		
19	1	2				8	1		S 58° W	1·5	1·7	2·6	−35	78	·664	2·7	3	2·45	+0·55	6·15	2·30	+3·85	6·15	2·30	+ 3·85	5·47	Benares .	N.-W. PROVINCES (EAST).	18
8		2	1			5	10	5	N 86° W	2·9	3·3	2·8	+18	75	·661	2·0	2	1·64	+0·36	0·74	1·83	−1·09	0·74	1·83	− 1·09	0·59	Allahabad.		
5	5	3	3	1	3	2	3	6	N 27° W	1·1		1·3	−15	81	·727	2·7	5	2·64	+2·36	6·18	3·77	+2·41	6·18	3·77	+ 2·41	4·07	Gorakhpur .	N.-W. PROVINCES (EAST SUBMONTANE).	23
10	4		1		2	7	6	1	S 80° W	1·1	1·2	1·9	−37	74	·614	1·5	0	1·36	−1·36	0	0·83	−0·83	0	0·83	− 0·83	0	Lucknow .	SOUTH OUDH.	19
9	6	2	6	1		2	2	3	N 19° E	1·5	1·4			79	·701	0·8	0			0·01	1·69	−1·68	0·01	1·69	− 1·68	0·01	Bahraich .	NORTH OUDH.	20
16	2	1			1	7	3	1	S 73° W	1·0				69	·569	1·1	0	1·60	−1·60	0	1·37	−1·37	0	1·37	− 1·37	0	Cawnpore .	N.-W. PROVINCES (CENTRAL).	21
22	2	1			1		5		N 70° W	0·9	0·9			68	·525	0·9				0	0·82	−0·82	0	0·82	− 0·82	0	Mainpuri.		

‡ Mean of 28 days.

§ Mean of 22 days.

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Abstract of Observations taken at 8 A.M. at

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
	VI.—Upper Sub-Himalayas				+·047								88·1	−2·1	61·5	−0·6	74·8	−1·3	26·6				
24	N.-W. Provinces (West Submontane).	Bareilly	569	29·372	+·049	29·919	29·542	29th	29·233	10th	·310	71·6	88·6	−0·6	63·4	−1·8	76·0	−1·2	25·2	91·4	8th & 10th.	55·7	27th
		Dehra Dun	2,233	27·715	+·028	29·947	27·863	29th	27·605	9th	·258	66·0	81·5	−0·2	58·3	−2·5	69·9	−1·4	22·2	85·5	12th & 13th,	53·5	25th, 30th & 31st.
		Roorkee	887	29·054	+·045	29·939	29·217	29th	28·930	9th	·287	67·3	86·7	−2·4	59·5	−2·0	73·1	−2·2	27·2	89·8	4 days	51·3	31st
22	N.-W. P. (West)	Meerut	738	29·191	+·037	29·920	29·346	29th	29·072	9th	·274	67·3	88·5	−1·5	60·8	−1·9	74·7	−1·7	27·7	92·6	14th	55·8	27th
26	South-East-Punjab.	Delhi	718	29·219	+·043	29·919	29·369	29th	29·097	9th	·272	72·2	88·2	−3·6	67·5	−0·5	77·9	−2·1	20·7	92·2	20th	61·6	29th
28	Central Punjab.	Lahore	702	29·236	+·052	29·931	29·395	26th	29·057	4th	·338	69·8	90·9	−2·3	61·2	+1·3	76·1	−0·5	29·7	96·6	20th	56.0	10th
27	South Punjab	Sirsa	662	29·269	+·041	29·913	29·420	30th	29·095	4th	·325	71·8	93·1	−2·8	62·5	0	77·8	−1·4	30·6	97·3	18th & 20th,	56·6	29th
		Patiala	818	29·126		29·934	29·269	26th	29·012	3rd	·257	71·4	87·9		61·4		74·7		26·5	90·9	12th & 13th,	55·9	25th & 27th,
29	Punjab (Submontane).	Ludhiana	812	29·110	?	29·918	29·244	26th	28·999	3rd	·245	68·8	87·9	−4·0	62·6	−0·9	75·3	−2·5	25·3	92·1	5th	58·1	31st
		Sialkot	830	29·111	+·060	29·939	29·265	26th	28·951	4th	·314	69·6	90·3	−1·7	63·7	+1·9	77·0	+0·1	26·6	94·6	12th	54·7	31st
		Umballa	892	29·045	+·062	29·941	29·184	29th	28·925	9th	·259	64·8	86·6	?	60·0	−1·8	73·3	?	26·6	89·5	20th	53·0	26th
31	North Punjab	Rawalpindi	1,676	28·283	+·049	29·977	28·423	22nd	28·137	4th	·286	67·0	86·6	−1·4	56·5	+0·6	71·6	−0·4	30·1	92·1	3rd	50·0	30th
	VII.—Indus Valley and North-West Rajputana.				+·055								94·6	−0·7	64·8	0	79·7	−0·4	29·8				
31	North Punjab	Peshawar	1,110	28·874	+·052	30·003	29·028	29th	28·716	3rd	·312	67·9	86·9	−1·5	57·7	+0·3	72·3	−0·6	29·2	92·0	13th & 14th.	52·5	30th
32	West Punjab	Khushab	612	29·337	+·067	29·936	29·496	26th	29·133	4th	·363	72·6	91·1	−2·8	64·1	+2·0	77·6	−0·4	27·0	95·8	3rd & 20th,	59·2	26th
		Montgomery	558	29·380	+·049	29·918	29·566	26th	29·163	4th	·403	75·1	93·4	−3·2	63·2	+1·0	78·3	−1·1	30·2	99·5	3rd & 4th,	57·0	26th
		D. I. Khan	594	29·370	+·044	29·929	29·526	25th & 26th.	29·177	4th	·349	70·2	91·6	−1·7	61·6	+0·1	76·6	−0·8	30·0	98·2	3rd	56·1	26th
		Mooltan	420	29·519	+·043	29·922	29·702	26th	29·307	4th	·395	71·2	94·9	−0·1	63·2	−1·4	79·1	−0·8	31·7	99·4	2nd, 3rd & 20th,	57·9	25th & 26th,
47	Sind	Jacobabad	186	29·758	+·054	29·910	29·929	26th	29·595	4th	·334	73·9	99·5	+1·5	62·6	−0·5	81·0	+0·5	36·9	106·4	4th	56·0	8th
		Hyderabad	96	29·863	+·066	29·913	30·018	26th	29·720	4th	·298	77·4	98·8	+1·4	68·8	−1·8	83·8	−0·2	30·0	105·6	12th	61·5	27th
		Kurrachee	30	29·966	+·064	29·947	30·103	26th	29·858	4th	·245	78·5	94·3	+1·3	71·5	0	82·9	+0·7	22·8	100·9	10th	65·2	9th
51	West Rajputana	Bikaner	771	29·164	+·055	29·917	29·330	26th	29·035	4th	·295	76·8	94·8	−0·8	70·0	−0·1	82·4	−0·5	24·8	98·6	4th & 13th,	63·5	26th
		Pachpadra	380	29·589		29·934	29·722	26th	29·482	4th	·240	76·2	99·2		64·6		81·9		34·6	102·5	12th & 13th	59·2	15th
		Jodhpur	782	29·172		29·953	29·315	26th	29·068	4th	·247	74·8	95·8		65·3		80·5		30·5	99·1	12th & 13th.	60·2	15th
	VIII.—East Rajputana, Central India, and Gujarat.				+·052								92·6	−0·1	65·4	−2·0	79·0	−1·1	27·2				
50	East Rajputana	Jaipur	1,431	28·550	+·048	29·964	28·690	26th	28·450	9th	·240	75·4	93·3	+0·1	62·7	−1·8	78·0	−0·9	30·6	96·2	7th, 13th & 19th.	56·5	27th
		Kotah	819	29·144			29·283	26th	29·029	8th	·254	76·7	91·9		67·2		79·6		24·7	96·0	21st	62·0	28th
		Sambhar	1,254	28·714	+·051	29·960	28·848	26th	28·616	4th	·232	71·9	91·1	−0·5	62·1	−2·6	76·6	−1·6	29·0	94·5	13th	54·9	27th
		Ajmer	1,611	28·367	+·041	29·978	28·492	26th	28·272	4th	·220	71·4	90·2	−1·2	60·9	−2·1	75·6	−1·7	29·3	93·4	13th	54·7	15th & 27th.
		Udaipur	1,925	28·074		29·994	28·198	26th	27·964	8th	·234	70·9	87·8		59·0		73·4		28·8	90·5	13th & 20th.	54·2	4 days
		Deesa	466	29·522	+·059	29·949	29·642	30th & 31st.	29·405	8th	·237	79·8	97·4	+1·4	64·9	−2·0	81·2	−0·3	32·5	100·1	13th	61·1	10th
46	Kathiawar and Cutch.	Bhuj *	395	29·598	+·068	29·950	29·708	30th	29·495	8th	·213	81·0	96·5	+0·6	70·1	−1·2	83·3	−0·3	26·4	99·8	13th	65·4	27th
		Jamnagar	61	29·928		29·935	30·039	30th	29·817	8th	·222	79·2	95·2		68·5		81·8		26·7	98·6	14th	62·2	26th
		Rajkot	429	29·561	+·055	29·948	29·667	31st	29·444	8th	·223	78·7	95·9	+0·7	66·5	−1·9	81·2	−0·6	29·4	98·4	14th	62·9	6th & 27th.
		Veraval		29·957	+·043	29·917	30·078	31st	29·855	9th	·223	79·5	89·8	+0·4	70·9	−1·2	80·4	−0·4	18·9	98·1	27th	67·3	13th, 21st & 26th.
		Bhavnagar Para.	35	29·947	+·044	29·927	30·071	31st	29·822	8th	·249	78·4	95·6	+0·5	67·5	?			28·1	98·1	20th	63·8	11th
49	Central India	Nowgong	757	29·208	+·047	29·946	29·346	29th	29·050	8th	·296	70·2	87·0	−3·4	62·5	−2·6	74·8	−3·0	24·5	91·5	21st	56·0	25th & 26th,
		Indore	1,823	28·177	+·068	29·973	28·295	30th	28·051	8th	·244	74·5	87·8	+0·7	59·7	−4·0	73·8	−1·7	28·1	90·8	21st	55·6	26th & 27th.
		Neemuch	1,630	28·372	+·048	29·988	28·502	26th	28·249	8th	·253	73·7	89·3	−0·6	61·3	−3·3	75·3	−2·0	28·0	92·0	20th	56·1	27th
45	Gujarat	Surat	39	29·952	+·053	29·934	30·063	31st	29·847	8th	·216	79·3	96·5	+4·2	69·0	−1·5	82·8	+1·4?	27·5	98·7	17th	65·0	13th
		Ahmedabad	164	29·849	?	29·962	29·971	31st	29·731	8th	·240	80·2	97·5	+2·1	70·3	−1·3	83·9	+0·4	27·2	100·3	9th	67·1	28th

* Mean of 26 days.

I—*continued.*

Stations in India, Burma, etc., in October, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st October 1900.	Normal rainfall for period, 1st to 31st October.	Variation from normal of period 1st to 31st October.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				0·12	0·46	−0·33					VI.—Upper Sub-Himalayas.		
31									Calm	0		1·9	−100	73	·570	0·4	0	0·91	−0·91	0	1·15	−1·15	0	1·15	−1·15	0	Bareilly	N.-W. Provinces (West, Sub-montane).	24
31									Calm	0·9		1·7	− 47	65	·423	1·0	0	1·20	−1·20	0	0·99	−0·99	0	0·99	−0·99	0	Dehra Dun.		
30	1								N	1·1		1·4	− 21	76	·511	0·7	1	0·55	+0·45	0·32	0·43	−0·11	0·32	0·43	−0·11	0·28	Roorkee.		
21						1	7	2	N 86° W	0·7		1·4	− 50	70	·486	0·5	0	0·45	−0·45	0	0·42	−0·42	0	0·42	−0·42	0	Meerut.	N.-W. P. (West).	22
8	1		1				9	12	N 61° W	1·8	1·7	2·4	− 29	58	·454	0·9	1	0·18	+0·82	0·14	0·08	+0·06	0·14	0·08	+0·06	0·14	Delhi	South-East Punjab.	26
15	5		4	1	2		3	1	N 18° E	1·3		1·6	− 19	70	·520	1·1	1	0·45	+0·55	0·17	0·26	−0·09	0·17	0·26	−0·09	0·10	Lahore	Central Punjab	28
		6	1	12	1	6		5	S 45° E	3·0	2·5	2·5	+ 40	62	·493	0	0	0·64	−0·64	0	0·14	−0·14	0	0·14	−0·14	0	Sirsa	South Punjab.	27
8	6		4	4	1		4	4	N	3·0				66	·514	0·6	0			0						0	Patiala.		
17		3		3	3		5		S 25° W	1·5	1·3	0·9	+ 44	69	·491	0·8	0	0·55	−0·55	0	0·40	−0·40	0	0·40	−0·40	0	Ludhiana	Punjab (Submontane).	29
3	6	12	3	3			2	2	N 37° E	2·5		1·4	+ 79	59	·430	3·3	0	0·82	−0·82	0·11	0·31	−0·20	0·11	0·31	−0·20	0·04	Sialkot.		
28				1			1	1	W	1·5				84	·511	0·4	1			0·10	0·31	−0·21	0·10	0·31	−0·21	0·10	Umballa.		
30			1						E	0·8	0·7	1·2	− 42	57	·382	1·0	2	1·45	+0·55	0·59	0·55	+0·04	0·59	0·55	+0·04	0·34	Rawalpindi	North Punjab.	31
																				0·06	0·06	0					VII.—Indus Valley and North-West Rajputana.		
29	1				1				Calm	1·2	1·3	2·5	− 48	62	·425	2·3	0	0·27	−0·27	0·05	0·11	−0·06	0·05	0·11	−0·06	0·05	Peshawar	North Punjab.	31
15	2	7	2	2		1	1	1	N 48° E	4·6	5·3			52	·416	1·0	2	0·20	+1·80	0·26	0·07	+0·19	0·26	0·07	+0·19	0·15	Khushab	West Punjab.	32
6	4	3	3	6	6	2		1	S 56° E	5·6	4·8			45	·381	0·8	0	0·10	−0·10	0	0·15	−0·15	0	0·15	−0·15	0	Montgomery.		
26	1	3	1						N 45° E	1·2	1·3	1·2	+ 8	58	·422	0·7	1	0·09	+0·91	0·11	0·05	+0·06	0·11	0·05	+0·06	0·11	D. I. Khan.		
16		5		4	1	5			S 37° E	1·1	1·4	2·0	− 30	58	·445	0·4	0	0	0	0	0	0	0	0	0	0	Mooltan.		
24		1	5				1		N 81° E	1·0	1·0	2·2	− 55	51	·421	0·8	0	0	0	0	0	0	0	0	0	0	Jacobabad	Sind.	47
1	9			2	4	11	1	3	S 78° W	?		7·8		50	·464	0·2	0	0	0	0	0	0	0	0	0	0	Hyderabad.		
3		4	4	3		1	11	5	N 61° W	6·6	8·3	9·7	− 14	62	·605	0·5	0	0	0	0	0	0	0	0	0	0	Kurrachee.		
2	1	2	1	3	3	4	13	2	S 72° W	6·7		4·0	+ 68	61	·562	0·7	1			0·24	0·10	+0·14	0·24	0·10	+0·14	0·24	Bikaner	West Rajputana	51
1	2	6	5	3	5	5	2	2	S 53° E	4·7	5·4	3·7	+ 46	43	·398	0·2	0			0	0·05	−0·05	0	0·05	−0·05	0	Pachpadra.		
15	2	4	1		2	4	3		W	2·5	2·3			49	·434	0·7	0			0	0·13	−0·13	0	0·13	−0·13	0	Jodhpur.		
																				0·01	0·66	−0·65					VIII.—East Rajputana Central India and Gujarat		
12	2	3	1				5	8	N 38° W	2·6		3·7	− 30	51	·452	0·9	0	0·90	−0·90	0	0·30	−0·30	0	0·30	−0·30	0	Jaipur	East Rajputana	50
22	2	2					3	2	N 32° W	2·3	2·7			54	·498	0·4	0			0	0·50	−0·50	0	0·50	−0·50	0	Kotah.		
21	3	1	1	2		1	1	1	N 17° E	3·1		4·7	− 34	54	·420	0·7	0	0·50	−0·50	0	0·17	−0·17	0	0·17	−0·17	0	Sambhar.		
15		2		2		7	5		S 55° W	2·6		2·6	0	64	·488	0·9	0	0·64	−0·64	0·09	0·31	−0·22	0·09	0·31	−0·22	0·09	Ajmer.		
30								1	N 45° W	0·6	0·6			63	·476	0·6	0			0			0			0	Udaipur.		
	1	5	16	6	2			1	S 88° E	6·0		6·7	− 10	46	·467	0	0	0·45	−0·45	0	0·35	−0·35	0	0·35	−0·35	0	Deesa.		
			1		1	3	21		S 82° W	6·2		6·0	+ 3	59	·615	0·4	0			0	0·35	−0·35	0	0·35	−0·35	0	Bhuj	Kathiawar and Cutch.	46
1	1	4	3	4	8	5	3	2	S 5° E	7·6	8·1			63	·633	0	0			0						0	Jamnagar.		
	6	2	7	1			9	6	N 21° W	4·2	4·2	5·6	−25	60	·588	0·4	0	1·27	−1·27	0	0·45	−0·45	0	0·45	−0·45	0	Rajkot.		
	14	6	1	2				8	N 3° E	5·5	6·5	2·4	+171	61	·607	1·0	0			0	1·08	−1·08	0	1·08	−1·08	0	Veraval.		
	5	2	2	1			5	16	N 35° W	3·9	4·0			51	·498	0·6	0			0	0·35	−0·35	0	0·35	−0·35	0	Bhavnagar		
5	3	1		1	4	8	5	4	S 73° W	1·1	1·1	1·5	− 27	74	·554	1·4	0	1·82	−1·82	0	1·17	−1·17	0	1·17	−1·17	0	Para. Nowgong	Central India.	49
24	4	1			1			1	N	1·3		2·3	− 43	63	·537	0·6	0	3·09	−3·09	0	1·45	−1·45	0	1·45	−1·45	0	Indore.		
6	3	7	7			1	2	5	N 28° E	3·8	3·4	7·9	− 57	59	·504	0·7	0	1·09	−1·09	0	0·49	−0·49	0	0·49	−0·49	0	Neemuch.		
1	1	8	5	5	1				N 82° E	3·7	6·1	5·1	+ 20	60	·601	0·8	0	3·00	−3·0	0	1·53	−1·53	0	1·53	−1·53	0	Surat	Gujarat.	45
	8	3	17	3	2	1		2	N 85° E	2·0				49	·506	0·6	0			0	0·89	−0·89	0	0·89	−0·89	0	Ahmedabad		

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
22	N.-W. P. (West)	Agra	555	29·397	+·040	29·926	29·533	26th	29·275	9th	·258	73·1	93·2	+0·3	66·1	−1·7	79·7	−0·7	27·1	97·0	14th, 20th, & 21st.	60·9	27th	36·
21	N.-W.P. (Central)	Jhansi	858	29·118	+·065	29·951	29·257	30th	28·977	9th	·280	74·7	90·7	−1·7	68·4	−0·1	79·6	−0·9	22·3	94·7	21st	62·1	13th & 27th.	32·
	IX.—Deccan				+·054								88·8	+0·9	65·1	−1·8	77·0	−0·4	23·6					33·
38	Bombay Deccan	Belgaum	2,539	27·423	+·041	29·898	27·532	31st	27·340	9th	·192	74·0	85·7	+3·3	65·6	+0·6	75·7	+2·0	20·1	89·8	14th	61·9	4 days	27·
		Sholapur	1,590	28·384	+·050	29·933	28·518	30th	28·271	8th	·247	77·4	92·9	+3·8	67·8	−0·1	80·4	+1·9	25·1	96·2	11th	62·6	21st	33·
		Poona	1,840	28·150	+·050	29·951	28·277	31st	28·060	8th	·217	72·7	91·0	+3·5	63·9	−2·5	77·5	+0·5	27·1	94·5	15th & 21st.	58·4	18th & 20th.	36·
		Bijapur	1,946	28·028	+·052	29·924	28·142	30th & 31st.	27·927	5th	·215	76·6	91·9	+4·6	68·1	+0·4	80·0	+2·5	23·8	94·7	9th	60·7	18th	34·
40	Khandesh	Malegaon	1,430	28·558	+·053	29·960	28·679	30th	28·437	8th	·242	75·3	92·8	+3·2	62·1	−3·2	77·5	0	30·7	97·4	22nd	56·9	18th	40·
		Ahmednagar	2,152	27·859	+·062	29·963	27·986	31st	27·759	8th	·227	75·7	90·0	+2·7	62·1	−2·3	76·1	+0·2	27·9	92·9	19th & 22nd,	54·0	20th	38·9
41	Berar	Akola	930	29·058	+·065	29·959	29·187	30th	28·893	8th	·294	73·2	91·3	+1·2	61·3	−4·7	76·2	−1·8	30·0	93·9	22nd	55·5	31st	38·4
		Amraoti	1,215	28·772	+·070	29·958	28·903	30th	28·592	8th	·311	76·1	90·1	+0·7	66·1	−1·4	78·1	−0·4	24·0	94·2	21st	61·3	30th	32·9
42	Central Provinces (West).	Khandwa	1,044	28·944	+·071	29·968	29·073	30th	28·796	8th	·277	72·7	91·9	+2·0	61·1	−5·0	76·5	−1·5	30·8	95·7	20th & 22nd,	56·6	12th & 29th.	39·1
		Hoshangabad	1,006	28·983	+·070	29·975	29·135	30th	28·820	8th	·315	71·2	87·7	−1·4	62·6	−4·4	75·2	−2·9	25·1	90·2	21st	57·3	28th & 31st.	32·9
		Nagpur	1,025	28·939	+·054	29·940	29·085	30th	28·715	8th	·370	73·7	89·9	+0·5	66·2	−2·1	78·1	−0·8	23·7	93·6	21st	59·7	28th	33·9
43	Central Provinces (Central)	Chanda	634	29·349	+·044	29·941	29·510	30th	29·141	8th	·369	74·9	89·7	+0·3	66·8	−1·7	78·3	−0·7	22·9	92·7	22nd	60·2	17th, 18th & 31st.	32·5
		Seoni	2,033	27·914	+·055	29·949	28·080	30th	27·712	8th	·368	72·0	85·2	−0·8	61·4	−2·9	73·3	−1·9	23·8	90·3	21st	57·0	28th, 29th 30th.	33·3
		Jubbulpore	1,327	28·626	?	29·944	28·766	29th	28·399	8th	·367	69·5	85·3	−1·5	61·6	−2·6	73·5	−2·1	23·7	89·9	21st	54·9	28th, 29th & 30th,	35·0
		Saugor*	1,807	28·178	+·051	29·962	28·301	30th	28·009	8th	·292	73·8	85·8	−1·0	65·0	−0·2	75·4	−0·6	20·8	90·4	21st	60·1	29th	30·3
49	Central India	Sutna	1,040	28·916	+·048	29·942	29·071	29th	28·723	8th	·348	72·1	84·7	−2·7	65·0	−0·6	74·9	−1·7	19·7	89·4	21st	58·2	27th	31·2
44	Central Provinces (East).	Raipur	970	28·981	+·041	29·920	29·139	30th	28·654	8th	·485	74·8	85·5	−2·3	68·1	−1·7	76·8	−2·0	17·4	90·3	22nd	61·7	31st	28·6
		Sambalpur	486	29·460	+·030	29·903	29·618	30th	29·126	7th	·492	76·5	87·0	−1·7	71·6	−0·6	79·3	−1·2	15·4	89·6	5th & 13th.	62·7	31st	26·9
39	Hyderabad (North).	Indur	?									75·9	87·3		66·4		76·9		20·9	90·4	15th	58·3	31st	32·1
		Bidar	2,165	27·611		29·707	27·635	11th	27·596	25th	·039	76·3	86·6		51·3		69·0		35·3	89·5	23rd	46·6	24th	42·9
53	Hyderabad (South).	Gulbarga	1,502	28·483		29·944	28·621	30th	28·359	8th	·262	77·6	91·7		67·5		79·6		24·2	94·8	22nd	59·3	20th	35·5
		Raichur	1,309	28·659	+·059†	29·922	28·796	31st	28·548	5th & 9th.	·248	79·0	91·1	+2·6	71·3	−0·7	81·2	+1·0	19·8	94·1	15th, 22nd & 23rd.	65·6	24th	28·5
		Hyderabad (Dn.)	1,690	28·272	+·053	29·924	28·410	30th	28·129	8th	·281	75·3	88·0	+1·2	68·3	?	78·2	?	19·7	91·9	22nd	60·7	31st	31·2
		Secunderabad	1,787	28·178	?	29·928	28·311	30th	28·038	8th	·273	74·6	88·3	+1·5	67·4	−0·4	77·9	+0·6	20·9	91·6	4 days.	61·1	31st	30·5
		Hanumkonda	865	29·071		29·891	29·232	31st	28·897	8th	·335	77·6	88·1		69·8		79·0		18·3	98·4	9th	63·2	20th	35·2
	X.—West Coast				+·029								87·5	+1·9	75·4	+0·8	81·5	+1·4	12·1					20·2
37	Konkan	Bombay	37	29·941	+·046	29·918	30·061	31st	29·863	9th	·198	79·0	88·3	+1·0	76·0	−0·2	82·2	+0·4	12·3	93·0	26th	72·5	22nd	20·5
		Ratnagiri	110	29·838	+·044	29·886	29·949	31st	29·765	4th & 5th.	·184	80·6	90·4	+2·2	73·8	+0·3	82·1	+1·3	16·6	97·4	19th & 30th,	67·9	21st	29·5
		Mormugao	60	29·906	+·034	29·901	30·020	31st	29·828	25th	·192	79·4	87·3	+1·3	76·4	+0·9	81·9	+1·1	10·9	92·0	18th	73·9	12th	18·1
		Goa	199	29·750	+·036	29·886	29·866	31st	29·679	25th	·187	80·0	86·3	+1·2	76·0	+0·6	81·2	+0·9	10·3	92·0	18th	73·5	12th	18·5
		Karwar	44	29·914	+·034	29·890	30·028	31st	29·831	25th	·197	77·2	87·1	+2·1	74·3	+1·2	80·7	+1·7	12·8	93·8	30th	68·5	24th	25·3
33	Malabar	Cochin	11	29·947	+·013	29·885	30·037	30th	29·881	9th & 25th.	·156	79·7	88·8	+3·1	75·5	+1·1	82·2	+2·1	13·3	91·5	3rd, 12th & 30th.	73·2	8th & 23rd.	18·3
		Calicut	27	29·922	+·006	29·878	30·022	31st	29·839	24th	·183	79·3	87·6	+1·8	75·3	+1·2	81·5	+1·5	12·3	89·8	16th	71·5	8th	18·3
		Mangalore	65	29·893	+·015	29·890	29·990	30th	29·824	25th	·166	80·0	87·3	+2·2	75·5	+1·4	81·4	+1·8	11·8	92·8	30th	72·4	15th	20·4
		Trivandrum	198	29·740	?	29·870	29·825	31st	29·669	4th	·156	78·9	84·1	+1·5	75·7	?	79·9	?	8·4	87·0	13th	74·0	25th & 29th.	13·0
	XI.—South India				+·029								89·2	+0·8	73·4	+0·6	81·3	+0·7	15·8					27·3
57	Madras (South)	Pamban	37	29·900		29·864	30·037	30th	29·809	5th	·228	80·7	88·6		76·2		82·4		12·4	91·8	8th & 15th.	73·7	20th	18·1
		Tinnevelly	168	29·779	+·024‡	29·878	29·900	30th	29·678	4th	·222	81·9	94·6	+0·9	76·2	−0·4	85·4	+0·3	18·4	102·4	1st & 10th.	71·9	23rd & 30th.	30·5
		Madura	447	29·488	+·024	29·873	29·603	30th	29·392	4th	·211	80·8	91·3	−0·4	74·8	+1·0	83·1	+0·3	16·5	95·9	11th	71·0	22nd	24·9
		Periyakulam		29·002			29·128	30th	28·913	3rd	·215	77·5	90·2		71·6		81·0		18·6	97·3	11th	64·2	23rd	33·1

* Observations of 20 days. † Mean of 29 days. ‡ Mean of 28 days.

I—*continued.*

Stations in India, Burma, etc., in October, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st October 1900.	Normal rainfall for period, 1st to 31st October.	Variation from normal of period, 1st to 31st October.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
4		2				14		11	S 87° W	2·7	3·2	3·0	+7	56	·464	0·2	0	0·45	−0·45	0	0·47	−0·47	0	0·47	−0·47	0	Agra	N.-W. P. (West).	22
11	1	1	1			4	10	3	N 86° W	2·2		2·6	−15	54	·462	0	0	1·27	−1·27	0·03	0·70	−0·67	0·03	0·70	−0·67	0·03	Jhansi	N.-W.P. (Central).	21
																				0·88	3·04	−2·20					IX.—Deccan.		
13	2	3	4	3	2	2	1	1	S 82° E	6·6+		10·5	−37	67	·562	3·8	5	8·09	−3·09	2·17	6·39	−4·22	2·17	6·39	−4·22	0·64	Belgaum	Bombay Deccan.	38
2	4	10	8	1			1	5	N 39° E	10·1	7·3	7·4	−1	48	·449	3·3	1	5·91	−4·91	1·69	5·10	−3·41	1·69	5·10	−3·41	1·69	Sholapur.		
14		2	5	2	1	4	1	2	S 47° E	6·5	7·3	5·8	+26	65	·528	3·1	2	6·18	−4·18	2·40	4·80	−2·40	2·40	4·80	−2·40	1·85	Poona.		
29		1						1	N	0·1	0·1			56	·515	3·1	3	7·70	−4·70	0·77	3·52	−2·75	0·77	3·52	−2·75	0·35	Bijapur.		
	4	5	4	1			6	11	N 21° W	4·7	5·4	4·5	+20	48	·429	0·6	0	4·18	−4·18	0	2·84	−2·84	0	2·84	−2·84	0	Malegaon	Khandesh.	40
3	5	5	3	5	3	1		6	N 43° E	6·1	7·4			60	·531	1·7	0			0·01	2·39	−2·38	0·01	2·39	−2·38	0·01	Ahmednagar.		
7	1	2	5	6	1	1	4	4	S 77° E	3·5	3·8	3·3	+15	57	·465	1·9	0	4·09	−4·09	0	3·50	−3·50	0	3·50	−3·50	0	Akola	Berar.	41
	3	18	2	1			2	5	N 28° E	7·0	6·2	2·9	+114	52	·472	2·1	0	4·09	−4·09	0	2·88	−2·88	0	2·88	−2·88	0	Amraoti.		
19		1	2	1	1	1	2	4	N 62° W	3·2		2·9	+10	60	·482	1·0	0	3·27	−3·27	0	1·73	−1·73	0	1·73	−1·73	0	Khandwa	Central Provinces (West).	42
		14		5		10		2	N 82° E	2·3	2·3	1·5	+53	70	·537	0·2	0	3·18	−3·18	0	1·82	−1·82	0	1·82	−1·82	0	Hoshangabad		
22	1	5	2					1	N 43° E	4·1		4·3	−5	60	·499	3·1	0	3·55	−3·55	0	2·95	−2·95	0	2·95	−2·95	0	Nagpur.		
18	2	1	1			1	6	2	N 62° W	1·9		2·3	−17	69	·611	2·8	0			0	2·24	−2·24	0	2·24	−2·24	0	Chanda	Central Provinces (Central)	43
	6	12	4	1	2	3	1	2	N 38° E	2·6		3·1	−16	57	·453	0·9	0	3·55	−3·55	0	2·36	−2·36	0	2·36	−2·36	0	Seoni.		
1	3	3	1	8	11	2	1	1	S 25° E	2·3		2·1	+10	81	·594	1·1	1	2·45	−1·45	0·76	2·07	−1·31	0·76	2·07	−1·31	0·67	Jubbulpore.		
	5	2	1	4	3	10	4	1	S 48° W	1·9	2·1	2·7	−22	52	·439	1·1	0	2·91	−2·91	0	1·45	−1·45	0	1·45	−1·45	0	Saugor.		
14	5	2	1				6	3	N 34° W	1·8	1·9	4·3	−56	78	·616	1·5	3	2·09	+0·91	1·76	2·37	−0·61	1·76	2·37	−0·61	0·84	Sutna	Central India.	49
20	3	4				1	2	1	N 6° W	3·2	2·9	3·6	−24	75	·647	1·6	2	3·82	−1·82	6·14	2·29	+3·85	6·14	2·29	+3·85	5·85	Raipur	Central Provinces (East).	44
	11	11	1	1	1	1	1	4	N 15° E	3·5	3·4	2·0	+70	77	·718	4·9	3			0·99	2·04	−1·05	0·99	2·04	−1·05	0·42	Sambalpur.		
18	3	4	2	1				3	N 23° E	4·0	3·8			67	·604	3·0	0			0·07	2·63	−2·56	0·07	2·63	−2·56	0·07	Indur.	Hyderabad (North).	39
	6	5		1	1	2	8	8	N 43° W					68	·625	2·9	0			0·02	3·65	−3·63	0·02	3·65	−3·63	0·02	Bidar.		
5	6	5	11	1	1			2	N 57° E	10·3	9·9			59	·562	2·2	0			0·05	3·06	−3·01	0·05	3·06	−3·01	0·05	Gulbarga	Hyderabad (South).	53
	4	7	9	3				8	N 40° E	10·8	10·6			64	·635	4·1	1			0·19	4·78	−4·59	0·19	4·78	−4·59	0·12	Raichur.		
20	1		3	3				3	N 72° E	4·4	4·3			70	·614	3·0	3			1·10	3·08	−1·98	1·10	3·08	−1·98	0·40	Hyderabad (Dn.).		
1	2	17	5					6	N 35° E	4·3		3·8	+13	69	·590	3·1	2			2·02	3·08	−1·06	2·02	3·08	−1·06	1·47	Secunderabad		
17	1		1	6	3	1		2	S 30° E	5·5	4·7			68	·659	2·7	3			1·92			1·92			1·33	Hanumkonda		
																				3·16	7·80	−4·63					X.—West Coast.		
1	4	14	9	2	1				N 60° E	8·0		9·8	−18	77	·777	3·1	0	3·45	−3·45	0	2·47	−2·47	0	2·47	−2·47	0	Bombay	Konkan.	37
15			8	5		1	1	1	S 69° E	4·1	4·1	7·7	−47	70	·730	2·2	0	5·91	−5·91	0·08	4·28	−4·20	0·08	4·28	−4·20	0·08	Ratnagiri.		
5	3	2	11	7	1		1	1	S 87° E	6·1				88	·886	4·0	1			0·65	7·01	−6·36	0·65	7·01	−6·36	0·53	Mormugao.		
	1	8	19	1			1	1	N 74° E					81	·824	5·1	1			0·16	5·97	−5·81	0·16	5·97	−5·81	0·14	Goa.		
10	1	12	7				1		N 57° E	3·2				86	·801	2·6	1	9·09	−8·09	0·65	7·68	−7·03	0·65	7·68	−7·03	0·63	Karwar.		
4	10	8	1	1	1	2	2	2	N 10° E	4·4				84	·874	4·7	14	15·09	−1·09	8·70	14·01	−5·31	8·70	14·01	−5·31	1·76	Cochin	Malabar.	38
9	2	6	8	5	1				N 83° E	5·5	6·9			85	·851	5·8	7	10·44	−3·44	8·04	10·17	−2·13	8·04	10·17	−2·13	2·40	Calicut.		
8	1	2	10	6	2	1		1	S 75° E	1·7		2·7	−37	83	·851	6·2	7	9·90	−2·90	1·85	7·82	−5·97	1·85	7·82	−5·97	0·64	Mangalore.		
13	6		1			1		10	N 29° W	4·6				83	·823	6·6	12			8·35	10·76	−2·41	8·35	10·76	−2·41	2·45	Trivandrum.		
																				6·71	7·64	−0·86					XI.—South India.		
	2	6	6	3		7	2	5	N 34° E	8·3	8·8			79	·838	3·9	12	7·50	+4·50	12·76	6·86	+5·90	12·76	6·86	+5·90	3·45	Pamban	Madras (South)	57
	7	2		1	2	5	3	11	N 50° W	4·5	4·3			77	·837	5·4	11	7·30	+3·70	6·30	6·01	+0·29	6·30	6·01	+0·29	1·46	Tinnevelly.		
9	8	4	2	1	1			6	N 6° E	1·5	1·5	2·9	−48	75	·800	5·1	8	9·73	−1·73	6·14	8·21	−2·07	6·14	8·21	−2·07	1·56	Madura.		
20				3	3	1	3	1	S 22° W	2·2	2·4			77	·732	4·9	13			6·75				6·75		1·48	Periyakulam.		

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
34	Madras, (South Central).	Salem	940	29·027	+·024	29·913	29·143	30th	28·932	4th	·211	78·5	90·0	+0·7	72·4	+1·9	81·2	+1·3	17·6	94·7	10th	65·9	23rd	28
		Coimbatore	1,348	28·603	+·026	29·905	28·719	30th	28·507	4th	·212	76·2	88·4	+0·4	70·6	0	79·5	+0·2	17·8	92·4	11th & 13th.	63·3	8th	28
35	Coorg	Mercara	3,781	26·253	+·021		26·344	31st	26·200	8th, 24th & 25th.	·144	67·1	76·9	+1·5	62·7	+0·6	69·8	+1·1	14·2	81·0	15th	56·7	23rd	24
36	Mysore	Chitaldroog	2,405	27·560	+·026	29·894	27·679	31st	27·450	25th	·229	74·5	86·7	+2·7	68·3	+0·7	77·5	+1·7	18·4	90·6	1st	61·9	22nd	28
		Bangalore	3,021	26·973	?	29·903	27·080	30th	26·885	4th	·195	71·2	81·8	+0·8	65·8	+0·9	73·8	+0·9	16·0	85·8	11th, 15th & 16th.	59·9	24th	25
		Hassan	3,091	26·911		29·917	27·011	30th	26·824	25th	·187	71·6	82·1		64·6		73·4		17·5	86·3	15th	58·2	22nd	28
		Mysore	2,518	27·464	+·023	29·912	27·574	31st	27·388	9th	·186	73·1	83·9	−0·1	66·7	−0·1	75·3	−0·1	17·2	87·6	11th	62·0	8th	25
56	Madras, East Coast, South.	Negapatam	31	29·904	+·022	29·864	30·005	30th	29·785	5th	·220	82·0	89·1	+1·2	77·5	+1·9	83·3	+1·6	11·6	96·2	1st	72·9	23rd & 24th	23
		Cuddalore	12	29·922	+·024*	29·863	30·051	30th	29·815	5th	·236	81·0	89·5	+1·3	76·0	+1·3	82·8	+1·3	13·5	98·2	1st	69·7	24th	28
		Trichinopoly	255	29·683	+·020	29·872	29·804	30th	29·582	4th	·222	80·9	92·3	+1·5	75·3	+1·3	83·8	+1·4	17·0	98·1	9th & 11th.	70·9	22nd	27
		Madras	22	29·911	+·022	29·864	30·051	30th	29·601	24th	·450	82·1	89·8	+0·8	75·1	−0·1	82·5	+0·4	14·7	98·0	8th & 9th.	69·5	5th	28
		Vellore	707	29·242		29·895	29·360	31st	29·105	24th	·255	78·1	90·9		77·4		85·1		13·5	96·4	10th	70·2	22nd	26
55	Madras, East Coast, Central.	Nellore	71	29·871	+·045	29·875	30·012	31st	29·749	8th	·263	82·7	92·1	+0·8	76·2	+0·4	84·2	+0·6	15·9	102·8	10th	72·1	21st	30
		Masulipatam	15	29·931	+·047	29·881	30·079	31st	29·779	7th	·300	81·8	89·8	+0·8	76·5	+0·8	83·2	+0·8	13·3	94·1	9th	72·1	31st	22
54	Madras, Central	Cuddapah	433	29·512	+·034	29·887	29·652	31st	29·403	5th	·249	81·8	93·7	+3·8	75·0	+0·9	84·4	+2·4	18·7	98·2	11th, 12th & 15th.	69·0	24th	29
		Kurnool	924	29·019	+·032	29·895	29·166	31st	28·905	5th	·261	77·1	92·5	+3·2	70·5	−0·8	81·5	+1·2	22·0	96·2	15th	60·8	31st	35
		Bellary	1,475	28·480	+·033*	29·908	28·617	31st	28·374	4th	·243	78·3	91·0	?	71·3	+0·5	81·2	?	19·7	97·2	15th	64·7	31st	32
52	Madras, East Coast, North.	Cocanada	26	29·903	+·040	29·864	30·049	30th & 31st.	29·695	7th	·354	81·1	88·4	+1·0	76·1	+0·4	82·3	+0·7	12·3	95·1	10th	70·0	31st	25
		Waltair (Vizag).	226	29·699	+·034	29·867	29·848	30th	29·443	7th	·405	81·6	88·2	−0·8	76·8	+1·4	82·5	+0·2	11·4	93·9	20th	70·9	31st	23
		Gopalpur	21	29·909	+·030	29·870	30·067	30th	29·583	6th	·484	79·5	87·0	−0·5	74·3	+0·1	80·7	−0·2	12·7	90·3	20th	66·6	31st	23
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·860			25·990	26th	25·740	4th	·250	69·8	84·3		42·6		63·5		41·7	93·0	3rd	37·0	25th	56
		Pishin											74·5		39·0		56·2		35·5	85·0	3rd	30·0	25th	55
		Quetta	5,502	24·766	+·043		24·866	26th	24·683	4th	·183	57·0	75·1	+0·3	40·9	+1·7	58·0	+1·0	34·2	84·7	3rd	32·8	9th & 25th	51
		Kalat										59·7	72·5		34·7		53·7		37·8	80·3	3rd	26·8	8th	53
		Chaman	4,311	25·854	+·066?		25·917	26th	25·777	4th	·140	63·4	78·6	0	52·7	+2·3	65·7	+1·2	25·9	89·7	3rd	36·1	25th	53
30	Punjab	Leh	11,503	19·809	+·034		19·912	18th	19·724	28th	·188	37·5	54·5	−4·3	28·7	−1·4	41·5	−2·9	25·8	62·6	1st	21·0	30th	41
		Srinagar	5,204	25·024	+·042		25·151	29th	24·889	4th	·262	47·0	66·1	−3·3	41·9	+2·1	54·0	−0·6	24·2	75·3	2nd	34·1	31st	41
		Minimarg		21·461‖			21·565	31st	21·313	15th	·252	38·4‖	52·3‖		28·2‖		40·2‖		24·1	68·1	4th	19·7	27th	48
		Skardu		22·989			22·153	31st	22·865	4th	·288	47·0	63·2		40·3		51·8		22·9	72·4	1st	31·6	31st	40
		Dras		20·906			21·013	31st	20·830	4th	·183	37·0	54·2		24·9		39·6		29·3	62·8	4th	15·6	31st	47
		Gilgit		25·278			25·464	31st	25·046	4th	·418	58·2	73·3		51·5		62·4		21·8	86·9	2nd	45·3	28th & 31st.	41
		Chitral		24·715			24·850	30th	24·600	3rd	·250	54·7	76·4†		44·6		60·8†		31·8	85·1	2nd & 3rd.	38·5	31st	46
		Killa Drosh										58·4	73·8		51·3		62·6		22·5	85·4	2nd	45·9	8th	39
		Para Chinar	6,000									59·7	71·3		48·5		59·9		22·8	78·2	3rd	43·9	24th	34
		Cherat		25·803	+·055		25·935	29th	25·68	4th	·250	62·9	75·6	−3·0	57·2	−0·1	66·4	−1·6	18·4	84·4	2nd	50·5	22nd & 28th.	33
		Murree	6,333	23·956	+·048		24·055	29th	23·864	4th	·191	56·8	64·8	−4·4	51·5	−1·6	58·2	−3·9	13·3	70·2	12th & 20th.	40·0	25th	30
		Poe											64·4		40·4		52·4		24·0	72·6	4th	33·2	29th	39
		Simla	7,224	23·222	+·042		23·307	29th	23·147	8th	·160	54·1	61·9	−0·7	50·0	−0·9	56·0	−0·8	11·9	67·4	12th	45·4	31st	22
25	N.-W. Provinces.	Chakrata	7,022	23·374	+·047		23·455	29th	23·313	8th & 9th.	·142	54·8	65·7	−0·2	49·3	−1·4	57·5	−0·9	16·4	70·7	11th	42·7	29th	28
		Mussooree	6,705	23·649	+·062		23·742	29th	23·537	1st	·205	56·6	64·5	+0·3	50·9	−0·7	57·7	−0·2	13·6	69·3	12th	46·0	23rd & 24th.	23
		Ranikhet	6,069	24·203	+·054		24·311	29th	24·127	8th	·184	58·7	68·3	−0·9	53·8	−0·3	61·1	−0·6	14·5	72·0	8th & 9th.	47·0	29th	26
		Muktesar		22·942			23·014	29th	22·875	9th	·139	55·7	65·7		48·2		56·9		17·5	71·5	5th & 12th.	40·9	29th	30

* Mean of 30 days. † Mean of 21 days.

1—*continued.*

Stations in India, Burma, etc., in October, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st October 1900.	Normal rainfall for period, 1st to 31st October.	Variation from normal of period, 1st to 31st October.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Distric.
17		3	3		1	4	3		S 24° W	2·9	2·6	2·8	− 7	79	·779	5·1	7	11·36	−4·36	3·26	6·89	−3·63	3·26	6·89	−3·63	1·41	Salem	Madras (South Central).	31
			19		2	5	5		S 62° E	2·1	1·9	3·5	−46	85	·779	6·6	16	8·91	+7·09	9·70	5·94	+3·76	9·70	5·94	+3·76	1·90	Coimbatore.		
5	2	7	7				7	3	N 17° E	6·5	6·0	3·6	+67	91	·608	7·0	12	13·50	−1·50	6·25	9·60	−3·35	6·25	9·60	−3·35	1·43	Mercara	Coorg.	35
1	2	5	9	2	1	1	5	5	N 39° E	6·1	5·3			77	·658	5·6	4			3·19	4·99	−1·80	3·19	4·99	−1·80	1·69	Chitaldroog	Mysore.	36
	2	5	10	2	2	3	5	2	N 78° E	6·9	6·0	4·0	+50	82	·632	5·7	7	10·00	−3·00	5·87	7·15	−1·28	5·87	7·15	−1·28	2·31	Bangalore.		
	1	8	9	5			3	5	N 60° E	2·8	2·5			80	·623	7·4	10			10·61	5·68	+4·93	10·61	5·68	+4·93	3·66	Hassan.		
	3	5	6	3	3	6	4	1	S 52° E	6·5	7·0			82	·659	8·8	10			9·04	6·61	+2·43	9·04	6·61	+2·43	1·83	Mysore.		
	2	5	1		2	6	10	5	N 78° W	9·5	8·4	3·7	+127	82	903	5·8	11	10·82	+0·18	8·44	10·59	−2·15	8·44	10·59	−2·15	1·54	Negapatam	Madras, East Coast, South.	56
4	5	1	1		3	3	7	7	N 66° W	2·2	2·7			84	·899	5·6	8	9·40	−1·40	9·24	8·67	+0·57	9·24	8·67	+0·57	4·64	Cuddalore.		
16	2	1	1	1		2	7	1	N 79° W	5·0		3·8	+32	79	·831	4·9	5	10·00	−5·00	4·28	7·49	−3·21	4·28	7·49	−3·21	2·02	Trichinopoly.		
	6			1	7	3	7	7	N 85° W	5·3		5·0	+ 6	80	·884	5·2	10	12·09	−2·09	9·08	11·00	−1·92	9·08	11·00	−1·92	3·20	Madras.		
26		1				4			S 45° W	2·2				81	·779	5·5	8			5·26			5·26			3·25	Vellore.		
2	1			2	3	1	11	11	N 79° W	4·3				79	·879	6·3	9	8·90	+0·10	6·53	9·04	−2·51	6·53	9·04	−2·51	3·75	Nellore	Madras, East Coast, Central.	55
2	9	7	1	2		1	3	6	N 2° W	5·5		4·4	+25	81	·876	5·1	4	9·91	−5·91	4·90	9·34	−4·44	4·90	9·34	−4·44	2·72	Masulipatam.		
	2	10	4	1	1	3	9	1	N 1° W					71	·767	4·5	5	6·80	−1·80	2·30	6·33	−4·03	2·30	6·33	−4·03	0·76	Cuddapah	Madras, Central.	64
23	2		2				3	1	N 33° W					71	·665	4·1	3	7·00	−4·00	0·80	5·03	−4·23	0·80	5·03	−4·23	0·43	Kurnool.		
7	2	1	8	3			2	8	N 28° E	4·4	4·7	4·3	+ 9	58	·568	6·5	6	6·73	−0·73	2·72	4·29	−1·57	2·72	4·29	−1·57	0·88	Bellary.		
6	7	9		1	1	2	2	3	N 7° E	8·5	7·8			76	·807	4·5	4	10·00	−6·00	4·41	10·36	−5·95	4·41	10·36	−5·95	2·47	Cocanada.	Madras, East Coast, North.	52
4	2	15	3			2	5		N 32° E	10·8				71	·753	4·9	6			9·96	10·54	−0·58	9·96	10·54	−0·58	4·95	Waltair (Vizag).		
2	13				1	2		13	N 25° W	10·1	9·9	6·3	+57	87	·872	2·1	10	9·44	+0·56	12·69	9·35	+3·34	12·69	9·35	+3·34	6·32	Gopalpur.		
																											XII.—Hill Stations.		
8			1	1		6	1	14	N 69° W	6·6				26	·190	0·4	0			0	0·17	−0·17	0	0·17	−0·17	0	Shahrig	Baluchistan.	48
																	0			0	0·06	−0·06	0	0·06	−0·06	0	Pishin.		
30							1		W	1·2	1·3	3·0	−57	46	·216	0·8	0	0·18	−0·18	0	0·07	−0·07	0	0·07	−0·07	0	Quetta.		
	8		9		10		4		S 68° E					35?	·185?					0	0·07	−0·07	0	0·07	−0·07	0	Kalat.		
			13	8	4	5		1	S 49° E	8·5	9·0			78	·464	0·9	0			0	0·09	−0·09	0	0·09	−0·09	0	Chaman.		
		6	9	3	7	2	4		S 58° E			2·0	+30	54	·122	4·0	0			0·18	0·31	−0·13	0·18	0·31	−0·13	0·08	Leh	Punjab.	30
17			2	5	5		1	1	S 27° E	2·5	2·7			90	·298	3·5	4			1·90	0·63	+1·27	1·90	0·63	+1·27	0·98	Srinagar.		
18		1		3			2		S 45° E	1·1†	1·2†			76‖	·178‖	4·4‖	6			2·77			2·77			1·65	Minimarg.		
25		2			1	2	1		S 45° W	2·9	3·5			76	·249	3·7	1			0·12	0·02	+0·10	0·12	0·02	+0·10	0·11	Skardu.		
27			1			3			S 27° W	4·0	4·1			66	·143	2·1	2			0·62	1·64	−1·02	0·62	1·64	−1·02	0·35	Dras.		
27						2	1		S 63° W	1·3	1·3			48	·223	4·5	1			0·29	0·16	+0·13	0·29	0·16	+0·13	0·24	Gilgit.		
	5				3		1		N 27° W	3·2	3·1			70	·295	0	1			0·31			0·31			0·31	Chitral.		
11	5		11		3		1		N 79° E					52	·243	3·5	3			2·16			2·16			0·80	Killa Drosh.		
	6	8	4		2	5	5	1	N 3° E	3·3				43	·215	3·0	3			1·42			1·42			0·73	Para Chinar.		
	16	3			2	1	1	8	N 13° W	9·5	8·8			47	·267	1·7	0			0·13	0·10	+0·03	0·13	0·10	+0·03	0·08	Cherat.		
12	6		2	6		1	1	3	N 37° E	4·9	6·0	5·7	+ 5	41	·189	1·8	4	2·45	+1·55	2·51	1·65	+0·86	2·51	1·65	+0·86	0·78	Murree.		
24	2	1	1				3		N 18° W							1·8	0			0·11	0·75	−0·64	0	0·75	−0·64	0·03	Poo.		
9	7	5	3		5	1		1	N 42° E	4·0		2·5	+60	47	·201	0·4	1	1·27	−0·27	0·18	1·22	−1·04	0·18	1·22	−1·04	0·11	Simla.		
6	14	2				1		8	N 14° W	9·3		5·1	+82	56	·242	1·1	0			0·02	0·84	−0·82	0·02	0·84	−0·82	0·02	Chakrata	North-Western Provinces.	25
6	6	7	2	4	4			2	N 57° E					48	·234	0·7	0	1·40	−1·40	0·15	1·04	−0·89	0·15	1·04	−0·89	0·09	Mussooree.		
22		2	4			2	1	1	N 73° E	2.3	2·6	1·7	+53	63	·316	0·5	0	1·09	−1·09	0·13	1·48	−1·35	0·13	1·48	−1·35	0·06	Ranikhet.		
1	1	2	1	11	1	1		13	N 10° E	5·6	5·2			61	·272	0·6	2			0·76			0·76			0·60	Muktesar.		

‖ Mean of 2½ days.

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range dur-
13	Bengal	Yatung	10,480?										54·8		35·1		44·9		19·7	62·1	7th	26·9	26th	35
		Darjeeling	7,409	23·121	+·067		23·182	31st	23·059	8th	·123	55·0	61·9	+1·1	49·7	+0·7	55·8	+0·9	12·2	67·7	7th	42·1	30th	25
		Gantok	5,660	24·545			24·63	21st	24·411	10th	·222	59·9	77·7		39·1		54·9		31·6	75·2	6th	32·0	30th	43
	Central India	Mount Abu	3,945	26·151	+·035		26·246	30th	26·063	8th	·183	71·3	70·8	−1·1	64·1	−0·1	71·0	−0·6	13·7	80·2	13th 14th & 15th.	60·4	27th	19
		Pachmarhi	3,528	26·537	+·045		26·658	30th	26·371	8th	·287	70·1	77·8	+0·5	55·9	−4·0	66·9	−1·8	21·9	81·7	21st	49·2	28th	32
	South India	Wellington	6,200	24·282	+·020		24·374	30th	24·203	24th	·171	62·1	70·3	+1·8	54·9	−0·1	62·6	+0·9	15·4	73·2	9th	46·7	8th	26
		Kodai Kanal	7,688	22·857			22·941	30th	22·787	5th	·154	55·3	62·4		50·8		56·6		11·6	67·0	15th	44·6	23rd	22
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	29·923	+·024	29·861	30·034	30th	29·817	4th	·217	79·8	88·7	−1·8	76·0	+0·8	82·3	−0·5	12·7	95·5	1st	74·0	21st, 23rd & 28th.	21
		Colombo	40	29·917	+·002	29·883	29·999	31st	29·844	4th	·155	81·1	89·0	+3·5	75·4	+0·1	82·2	+1·8	13·6	92·0	9th, 11th & 12th.	72·5	29th	19
	Persia	Meshed	3,104									55·3			46·6							33·0	25th	
		Teheran		26·101‖ 25·119¶			26·370 25·660	20th 20th	25·900 25·200	17th 5th	·470 ·460	63·4	75·9		42·1		59·0		33·8	81·5	1st & 3rd	31·2	19th	50
		Ispahan		24·440			24·675	20th	24·275	17th	·400	57·7	76·1		48·2		62·2		27·9	89·3	1st	41·1	23rd	48
		Bushire	14	29·986	+·045	29·959	30·137	19th	29·833	16th	·304	79·1	88·9	+1·0	72·8	+2·1	80·9	+1·6	16·1	97·5	16th	67·1	23rd	30
		Jask*		30·018	+·087		30·130	31st	29·894	9th	·236	82·6	90·4	−0·4	75·3	−0·2	82·8	−0·3	15·1	99·3	8th	68·2	25th	31
		Muscat	20	29·994		29·962	30·121	31st	29·872	4th	·249	82·1	84·5		79·3		82·0		5·2	87·3	14th	74·9	25th & 27th.	12
	Arabia	Baghdad	220	29·885	+·060	30·084	30·090	19th	29·700	15th	·390	70·8	93·2	−0·5	65·4	+3·3	79·3		27·8	103·8	1st	58·5	21st	45
		Bussrah		30·033			30·220	19th	29·852	3rd	·368		91·5		71·2		81·4		20·3	102·4	2nd	63·9	21st & 22nd.	38
		Aden	94	29·909	+·036	29·935	30·002	27th	29·817	10th	·185	81·5	88·2	−3·0	77·4	+0·3	82·9	−1·4	10·8	91·8	15th	73·9	28th, 29th & 30th.	17
		Perim	201	29·784		29·918	29·842	30th & 31st.	29·679	10th	·163	84·7	90·7		80·4		85·6		10·3	93·9	1st	78·7	28th	15
	Afghanistan	Kabul										49·4	76·4		41·4		58·9		35·0	87·1	3rd	33·4	8th	53
	Central Asia	Kashgar		25·750†			25·950	20th	25·540	27th	·410	50·9	70·8		42·5		56·7		28·3	76·5	20th	29·7	30th	46
	Arabian Sea Island.	Minicoy	7	29·944		29·876	30·030	31st	29·892	25th	·138	81·7	86·8							89·3	13th			
	Africa	Zanzibar	73	30·031	+·020	30·031	30·092	18th	29·972	30th	·120	77·8	83·3		75·1		79·2		8·2	86·2	15th	73·2	1st	13·0

NOTE.—When a query is inserted against any reading or in the variation returns for any station, the data fo

* Observations of 29 days. † Aneroid corrected. ‖ Aneroid uncorrected. ¶ Mountain barometer uncorrected.

I—*concluded.*

Stations in India, Burma, etc., in October 1900—concluded.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variations.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st to 31st October 1900.	Normal rainfall for period, 1st to 31st October.	Variation from normal of period, 1st to 31st October.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of Districts.
																	4			0·73	2·49	− 1·76	0·73	2·49	− 1·76	0·20	Yatung	Bengal.	13
12		5	8	5		1			S 86° E	2·4	2·2	2·6	−15	80	·355	3·0‡	1	4·92	−3·92	0·34	5·83	− 5·49	0·34	5·83	− 5·49	0·23	Darjeeling.		
31									Calm	2·8	3·3			83	·438	3·5	2			0·96	6·89	− 5·93	0·96	6·89	− 5·93	0·43	Gantok.		
5		9	2	1	1	8	2	3	N 33° W	4·7	4·9	4·0	+23	39	·299	0·3	0	0·60	−0·60	0	0·71	− 0·71	0	0·71	− 0·71	0	Mount Abu.	Central India.	
15	3	6	2	3				2	N 46° E	4·6	4·7	2·9	+62	50	·367	2·5	0	4·27	−4·27	0	2·63	− 2·63	0	2·63	− 2·63	0	Pachmarhi.		
17	6	1	1	3		1	1	1	N 17° E	2·4		2·6	− 8	76	·428	6·4	19	15·89	+3·11	15·69	12·10	+ 3·59	15·69	12·10	+ 3·59	2·22	Wellington.	South India.	
	5	4	4	5	2			11	N 17° E	8·0				89	·388	5·1	16			10·81				10·81		1·40	Kodai Kanal.		
																											XIII.—Extra India.		
12						17	1	1	S 51° W	4·5				88	·906	3·3	15			7·87	9·96	− 2·09	7·87	9·96	− 2·09	1·54	Trincomalee	Ceylon.	
	5	3	5	6	3	3	5	1	S 66° E	6·2		7·3	−15	84	·900	4·7	14			9·94	13·51	− 3·57	9·94	13·51	− 3·57	2·42	Colombo.		
														70	·306	1·9	0			0·09	0·79	− 0·70	0·09	0·79	− 0·70	0·09	Meshed.	Persia.	
3	3	17	2	1		3	2		N 43° E	0·9	1·2			45	·261	1·7	1			0·33	0·17	+ 0·16	0·33	0·17	+ 0·16	0·20	Teheran.		
										1·2	1·5			67	·318	1·3§	1			0·71	0·30	+ 0·41	0·71	0·30	+ 0·41	0·63	Ispahan.		
6	4	9	4	6	1			1	N 67° E	5·4	6·4	6·5	− 2	61	·605	2·0	2			1·05	0·10	+ 0·95	1·05	0·10	+ 0·95	0·65	Bushire.		
4	7		16	1				2	N 63° E	10·8	12·5			64	·709	0	1			0·17	0·07	+ 0·10	0·17	0·07	+ 0·10	0·17	Jask.		
17	2			6				6	N	3·2	3·3			67	·745	0·4	0			0	0·04	− 0·04	0	0·04	− 0·04	0	Muscat.		
13	10	3			2		3		N 6° W	2·0	2·6			58	·434	2·8	0			0·05	0·04	+ 0·01	0·05	0·04	+ 0·01	0·04	Baghdad.	Arabia.	
	21	1	1		4				N 6° E											0			0			0	Bussrah*		
2		23	5			1			N 53° E	13·1	12·8	12·2	+ 5	70	·753	1·7	0			0	0·02	− 0·02	0	0·02	− 0·02	0	Aden.		
		3	10	16	2				S 64° E	21·8	20·2			85	1·020	1·2	0			0	0·09	− 0·09	0	0·09	− 0·09	0	Perim.		
5	3	1				7	12	3	N 87° W					55	·196	0·4	0			0·04	0·03	+ 0·01	·04	0·03	+ 0·01	0·04	Kabul.	Afghanistan.	
16	1	5		4			1	4	N 31° E	1·5	1·3			52	·193	2·8	0			0	0·07	− 0·07	0	0·07	− 0·07	0	Kashgar.	Central Asia.	
	6	2		1	2	3	8	9	N 57° W	5·5	5·8			80	·867	3·9	9			4·06			4·06			1·31	Minicoy.	Arabian Sea Island.	
			3	11	14	3			S 21° E	5·8	5·4			82	·789	7·4	10			5·04	3·72	+ 1·32	5·04	3·72	+1·32	2·52	Zanzibar.	Africa.	

Station, are not utilized in calculating the provincial variations. ‡ Mean of 30 days. § Mean of 29 days. * Wind variable 4.

Tabl

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

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 daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
Burma Coast and Bay Islands.	Port Blair		29·883	29·780	·103	29·830	+·021	29·821	87·2	77·6	9·6	91·7	75·4	16·3	84·4	84·9	81·3	+1·1	75·8	79·8	79·6	78·4
	Rangoon		·906	·785	·121	·851	+·004	·828	87·8	76·1	11·7	90·3	72·9	17·4	84·2	85·3	80·4	+0·6	74·7	79·7	79·3	77·9
	Diamond Island		·902	·800	·102	·849	+·005	·825	87·1	79·1	8·0	91·8	76·2	15·6	84·8	84·4	81·9	+1·9	75·6	79·9	78·8	78·1
	Cocos Island	111	·862	·765†	·097	·812	?	·854‡	86·3‡	78·5†	7·8	88·2	75·3	12·9	83·6†	83·2‡	81·2‡	+1·4	75·3	78·6	77·8†	77·2
	Akyab		·927	·817	·110	·873	+·019	·836	88·2	73·4	14·8	91·0	65·2	25·8	84·1	85·1	80·0	−1·3	?	78·9	79·6	?
Bengal and Orissa.	Chittagong		·858	·750	·108	·804	+·017	·839	88·0	72·4	15·6	91·5	63·9	27·6	84·2	85·3	79·6	+0·6	71·9	77·6	77·0	75·5
	Calcutta (Alipore)		·942	·829	·113	·881	+·045	·847	88·5	74·4	14·1	92·4	66·0	26·4	84·1	85·8	81·0	+1·0	72·6	76·0	75·9	74·9
	Saugor Island		·926	·818	·108	·867	+·037	·837	87·0	75·8	11·2	90·9	67·4	23·5	83·5	84·5	80·3	+0·1	73·4	77·5	76·7	75·9
	False Point		·923	·821	·102	·870	+·023	·833	86·5	74·4†	12·1	89·5	64·6	24·9	84·4	84·4	79·4†	−0·4	73·6	78·0	77·6	76·4
Gangetic Plain and Chota Nagpur.	Hazaribagh		27·961†	27·859†	·102	27·912	+·044	·876‡	81·6	65·7	15·9	84·2	60·1	24·1	76·9	79·6	72·8	−0·7	62·1	65·5	66·5	64·7
	Darbhanga		29·799	29·679	·120	29·735	+·030	·856	86·4	71·8	14·6	90·1	64·4	25·7	83·0	84·8	78·4	−0·9	70·2	75·1	74·8	73·4
	Allahabad		·659	·551	·108	·599	+·044	·863	88·3	66·3	22·0	91·6	58·4	33·2	82·4	87·3	76·4	−2·2	64·1	72·2	73·3	69·9
Upper Sub-Himalayas.	Dehra Dun		27·740	27·657	·083	27·687	+·035	·887	81·5	58·2	23·3	85·5	53·4	32·1	74·4	77·2	68·4	−2·2	54·4	63·5	63·5	60·5
	Roorkee		29·069	28·971	·098	29·009	+·045	·868	86·6	59·5	27·1	89·8	51·1	38·7	78·0	83·9	72·0	−2·1	56·9	66·7	67·6	63·7
	Meerut		·211	29·117	·094	·157	+·040	·864	88·5	60·7	27·8	92·4	55·8	36·6	77·8	85·8	73·6	−2·0	58·2	66·1	68·5	64·3
	Lahore		·251	·168	·083	·202	+·052	·876	88·4	62·4	26·0	92·5	57·3	35·2	78·8	88·1	74·6	+0·1	58·6	67·2	70·2	65·3
	Lahore (New shed)								91·0	61·1	29·9	96·7	56·0	40·7	80·6	89·4	75·0		58·1	68·2	70·5	65·7
	Ludhiana		·129	·047	·082	·080	+·038	·865	87·8	62·6	25·2	92·1	58·2	33·9	78·8	86·0	74·2	−1·0	60·3	65·7	65·9	64·0
Indus Valley and N.-W. Rajputana.	Peshawar		28·878	28·789	·089	28·827	+·048	·927	86·6	57·7	28·9	92·0	52·8	39·2	78·9	82·5	70·4	−0·5	52·0	63·2	64·7	60·0
	Jacobabad		29·779	29·660	·119	29·712	+·046	·855	99·4	62·5	36·9	106·4	56·0	50·4	88·0	97·1	79·7	+1·2	55·9	67·9	71·6	65·1
	Kurrachee		·974	·882	·092	·929	+·057	·909	94·3	71·5	22·8	100·8	65·4	35·4	88·4	88·0	81·3	+1·6	63·8	72·8	75·2	70·6
	Jaipur		28·564	28·468	·096	28·510	+·052	·888	93·3	62·7	30·6	96·2	56·4	39·8	85·5	90·8	76·4	+0·2	55·9	66·6	67·0	63·2
E. Rajputana, Central India, and Gujarat.	Udaipur		·084	27·986	·098	·035		·903	88·1	59·1	29·0	91·5	54·0	37·5	82·6	86·5	73·2		56·3	66·0	66·1	62·8
	Deesa		25·529	29·418	·111	29·467	+·052	·881	97·6	64·9	32·7	100·3	61·3	39·0	89·7	95·8	81·0	+0·3	58·5	68·6	68·6	65·2
	Jamnagar		·939	·828	·111	·883		·890	95·4	68·4	27·0	99·1	62·0	37·1	89·0	92·7	81·2		63·1	71·8	70·5	68·5
Deccan.	Belgaum		27·425	27·313†	·112	27·370	+·030	·798†	85·7	65·6	20·1	89·6	61·7	27·9	79·3	83·6†	74·6†	+2·3	63·4	66·9	67·7†	65·9
	Sholapur		28·382	28·245	·137	28·316	+·037	·828	93·0	67·7	25·3	96·2	62·6	33·6	85·8	91·2	79·3	+2·1	60·7†	68·6	67·0	64·7
	Poona		·146	·023	·123	·088	+·044	·848	91·0	64·0	27·0	94·6	58·4	36·2	82·9	89·3	77·0	+0·9	61·9	66·2	66·9	65·0
	Akola		29·065	·937	·128	·997	+·061	·875	91·4	61·1	30·3	93·7	55·4	38·3	84·2	90·0	76·7	−1·7	57·5	67·8	67·6	64·3
	Buldana	2,132	27·869	27·757	·112	27·809	+·054	·868	85·8	65·8	20·0	90·4	62·5	27·9	81·0	83·8	76·1	−0·5	59·2	63·2	63·0	61·8
	Khandwa		28·950	28·831	·119	28·887	+·061	·881	92·1	61·1	31·0	95·7	56·6	39·1	83·4	90·3	75·6	−1·3	57·8	68·2	68·7	64·9
	Nagpur		·950	·826	·124	·884	+·060	·861	90·0	66·2	23·8	93·6	59·7	33·9	82·4	88·0	78·4	−0·4	60·6	68·1	68·4	65·7
	Do. (Sanitary Commr.'s Office)		·967	·844	·123	·902		·868	91·2	66·7	24·5	94·7	61·3	33·4	84·1	88·9	78·4		61·2	69·7	70·4	67·1
	Hyderabad (Deccan).		·277	·166	·111	·220	+·047	·842	88·2	68·3	19·9	91·9	60·9	31·0	82·9	85·0	77·5	+0·6	65·0	70·3	69·6	68·3
West Coast.	Bombay		29·944	29·833	·111	29·885	+·043	·862	88·4	76·0	12·4	92·9	72·5	20·4	82·8	85·1	81·3	+0·2	70·9	75·1	77·5	74·5
	Karwar		·928	·825	·103	·872	+·040	·848	87·4	74·2	13·2	93·7	68·3	25·4	83·5	85·3	80·2	+1·8	72·8	76·2	77·2	75·4

† Mean of 30 days. ‡ Mean of 29 days.

II.

66 Stations in India, Burma, etc., in October, 1900.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Number of winds from										Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	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.		
																									%	%					
·372	·962	·944	·926	+·015	92	81	79	84	− 2	6·6	7·2	6·9	+0·9		3	10	2	7	5	8	17	10	N. 85° W.	S. 1° W.	26	25	160	150			Port Blair	Burma Coast and Bay Islands.
·843	·959	·926	·909	+·021	93	82	76	84	0	5·4	6·7	6·1	+0·2		5	14	12	9	9	7	5	1	S. 75° E.	S. 36° E.	29	28	84	74			Rangoon	
·839	·964	·913	·905	+·038	84	80	77	80	− 3	5·5	6·0	5·8	+0·1	6	5	8	15	5	5	4	6	8	N. 63° E.	S. 56° E.	18	17	198*	173			Diamond Island,	
·838†	·913‡	·889‡	·880	0	86†	79†	78†	81	− 2	6·0	6·7†	6·4	+1·2		12	21	2	5	10	7		3	N. 52° E.	S. 67° E.	28	13	96	?	4·13	1·20	Cocos Island	
?	·921	·941	?	?	?	79	78	?	?	3·9	4·3	4·1	−0·7		1	1	24	7	1	6	12	10	S. 78° E.	S. 64° E.	11	8	61	59			Akyab	
·782	·861	·824	·822	−·026	97	73	67	79	− 4	4·3	4·0	4·2	−0·2		8	14	7	4	2	3	6	18	N. 3° W.	N. 11° W.	39	13	67*	66			Chittagong	Bengal and Orissa.
·785	·796	·771	·784	−·035	91	68	63	74	− 7	4·5	4·2	4·4	+0·3		17	8	6	6	2	7	2	14	N. 3° W.	N. 44° W.	34	11	77	67			Calcutta (Alipore),	
·799	·871	·821	·830	−·027	89	76	69	78	− 3	4·9	4·9	4·9	+0·2		20	11	3	2	4	5	4	13	N. 9° W.	N. 8° W.	45	13	210	174			Saugor Island,	
·821†	·878	·859	·853	+·028	95†	74	72	80	+ 1	5·8	5·4	5·6	+0·8	2	11	19	3	5	10	1	1	10	N. 33° E.	N. 50° E.	34	22	180*	155			False Point	
·523	·494	·493	·503	−·036	81	53	49	61	− 3	4·3	4·5	4·4	0	3	11	4	8	2	2	4	11	18	N. 33° W.	N. 35° W.	39	24	114*	124			Hazaribagh	Gangetic Plain and Chota Nagpur.
·723	·768	·734	·742	−·015	92	67	61	73	− 2	2·1	1·7	1·9	−0·7	35	2	2	7	4			5	7	N. 13° E.	S. 4° W.	10	1	20	52			Darbhanga	
·579	·659	·640	·626	+·006	89	59	50	66	0	1·7	2·2	2·0	+0·2	12	6	7	8	1	2	4	13	9	N. 36° W.	N. 49° W.	23	18	81*	66			Allahabad	
·381	·453	·422	·419	−·031	78	53	45	59	− 3	1·0‡	1·1†	1·1†	−0·1	28	2	6	2			15	7		S. 69° W.	N. 39° W.	20	21	20†	33			Dehra Dun	Upper Sub-Himalayas.
·434	·509	·464	·469	−·025	84	53	40	59	+ 1	0·7	0·3	0·5	−0·4	44	7	3	1	4	1			2	N. 34° E.	S. 6° E.	13	6	22	31			Roorkee	
·459	·493	·474	·475	−·018	86	51	38	58	+ 1	0·6	0·4	0·5	−0·2	32							28	2	N. 87° W.	N. 55° W.	47	35	20*	31			Meerut	
·448	·513	·500	·487	+·045	79	52	38	56	+ 9	1·1	0·5	0·8	+0·1	28	8	2	5	2	4		7	6	N. 23° W.	N. 7° W.	14	11	32	39			Lahore	
·449	·526	·511	·495		82	50	37	57																							Lahore (New shed).	
·498	·463	·375	·445	−·019	87	47	30	55	+ 2	0·9	1·0	1·0	0	17		6	1	2	3		33		S. 89° W.	N. 39° W.	42	22	31*	26			Ludhiana	
·320	·392	·398	·370	+·007	67	40	36	48	+ 1	1·9	3·1	2·5	+1·0	41	6	8	1		2		1	3	N. 17° E.	N. 52° E.	19	33	24*	60			Peshawar	Indus Valley and N.-W. Rajputana.
·362	·415	·436	·404	−·015	64	32	24	40	− 2	1·0	1·0	1·0	+0·6	43	2	1	6		3		1	6	N. 21° E.	S. 27° E.	22	9	29*	54			Jacobabad	
·504	·603	·706	·604	−·042	65	46	55	55	− 8	0·2	0·3	0·3	−0·6		2	3	5	1	3	23	21	4	S. 7° W.	S. 72° W.	56	61	201*	235			Kurrachee	
·368	·419	·369	·385	−·021	64	34	25	41	− 2	0·5	1·5	1·0	−0·7	1	4	4	1	1	4	11	21	15	N. 82° W.	N. 22° W.	56	37	62	77			Jaipur	E. Rajputana, Central India, and Gujarat.
·425	·434	·392	·417		84	39	31	51		0·2	0·6	0·4		25	6	4	6	6	2	2	5	6	N. 24° E.		10		?				Udaipur	
·409	·418	·339	·389	−·051	66	30	20	39	− 3	0·1	0·3	0·2	−1·6		5	9	7	14	6	6	10	5	S. 46° E.	N. 82° E	12	12	144	161			Deesa	
·516	·554	·454	·508		73	41	30	48		0	0·1	0·1			9	6	7	1	1	4	15	19	N. 41° W.		47		196*				Jamnagar	
·560	·510	·481†	·514	−·075	89	51	43†	60	−12	3·6	4·6†	4·1	−1·5	6	7	11	14	8	2	4	3	3	N. 72° E.	N. 54° E.	35	13	179§	241			Belgaum	Deccan.
·454†	·418	·362	·409	−·170	66†	34	25	41	−21	3·3	4·1	3·7	−2·2	1	14	30	9	4				4	N. 41° E.	N. 55° E.	75	22	179*	133			Sholapur	
·536	·440	·384	·453	−·096	89	40	28	52	− 8	2·9	3·2	3·1	−1·8	3	2	14	8	13	1	4	7	10	N. 60° E.	N. 37° E	19	19	177*	139			Poona	
·430	·462	·377	·423	−·148	80	39	27	49	−11	1·5	1·7	1·6	−1·6	3	11	19	9	5		1	2	12	N. 27° E.	N. 16° E.	52	32	92*	83			Akola	
·423	·361	·318	·367	−·156	67	35	28	43	−16	2·5	2·7	2·6	−1·1		23	18	7	4	1			9	N. 23° E.	N. 24° E.	67	49	?	125	Nil	Nil	Buldana	
·446	·494	·428	·456	−·084	81	44	30	52	− 5	0·9	1·5	1·2	−1·2	12	10	10	14	6			4	6	N. 45° E.	N. 22° E.	39	35	76	71			Khandwa	
·464	·512	·454	·477	−·104	72	46	34	51	− 9	2·8	3·5	3·2	−0·6	34	6	13	6					3	N. 37° E.	N. 37° E.	35	49	103	102			Nagpur	
·476	·549	·517	·514		72	46	39	52		1·8	2·5	2·2		7	2	40	1	3		3		6	N. 40° E.		63		31*				Do. (Sanitary Commr.'s Office).	
·583	·587	·537	·569	−·080	84	53	45	61	− 9	3·0	4·4	3·7	−0·6	20	1	8	13	12				8	N. 80° E.	S. 80° E.	35	33	101*	96			Hyderabad (Deccan).	
·692	·773	·845	·770	−·070	77	69	70	72	− 8	2·3	2·3	2·3	−1·8		2	16	9	2	1		4	28	N. 4° W.	N. 11° E.	50	33	193	226			Bombay	West Coast.
·790	·808	·829	·809	−·006	93	70	68	77	− 6	2·0	3·3	2·7	−1·8	2	3	2					34	21	N. 68° W.	N. 76° W.	82	63	75	54			Karwar	

§ Mean of 22 days.

* Corrected.

Tab

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.	Pressure. Mean of 16 hours.	Pressure. Mean daily range.	Pressure. Mean daily pressure.	Pressure. Variation from normal.	Pressure. Mean reduced to S.L. and for gravity 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hours.	Temperature of air. Mean 16 hours.	Temperature of air. Mean daily.	Temperature of air. Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Temperature, Wet-bulb. Mean 10 hours.	Temperature, Wet-bulb. Mean 16 hours.	Temperature, Wet-bulb. Mean daily.
South India.	Periyakulam		29·002	28·873	·129	28·938			90·1	71·6†	18·5	97·3	64·2	33·1	83·2	86·1	79·9†		69·9	73·5	73·8	72
	Salem		·026	·898	·128	·968	+·024	29·840	89·9	72·4	17·5	94·6	66·1	28·5	83·5	86·1	79·1	+1·1	70·7	74·6	74·9	73
	Chitaldroog		27·562	27·449	113	27·508	+·033	·813	86·4	68·3	18·1	90·1	61·8	28·3	80·0	83·8	76·7	+1·6	65·2	71·1	70·5	68
	Bangalore		26·977	26·870	·107	26·928	+·022	·828	81·9	65·8	16·1	86·0	59·8	26·2	76·2	78·9	73·1	+1·1	64·4	68·4	68·5	67
	Hassan		·917	·810	·107	·868	+·021	·835	81·9	64·6	17·3	86·3	58·2	28·1	76·2	78·4	72·4	+1·0	63·6	67·9	68·0	66
	Mysore		27·467	27·354	·113	27·411	+·025	·832	83·9	66·7	17·2	87·9	61·8	26·1	77·5	81·3	74·7	0	66·0	69·9	69·7	68
	Madras		29·920	29·813	·117	29·870	+·032	·821	89·8	75·0	14·8	98·2	68·1	30·1	86·1	85·3	81·4	+0·3		77·6	77·5	76
	Bellary		28·484	28·354	·130	28·421	+·025	·826	90·7	71·3	19·4	97·0	64·6	32·2	83·5	88·0	79·7	+0·9	65·9	69·4	70·4	68
	Waltair		29·710	29·602	·108	29·656		·822	88·0	76·9	11·1	93·8	70·9	22·9	85·2	84·8	81·6		71·0	75·1	75·7	73
Hill Stations, Baluchistan.	Quetta		24·774	24·698	·076	24·728	+·045		74·9	40·9	34·0	84·6	33·0	51·6	67·0	71·3	57·0	+1·4	36·8	49·9	51·3	46
Hill Stations, Northern India.	Leh		19·806	19·707	·099	19·766	+·034		54·0‡	28·8‖	25·2	63·1	21·0	42·1	44·1‖	50·4‡	41·3‡	−1·3	25·3‖	35·9‖	44·4‡	35
	Srinagar		25·036	24·937	·099	24·978	+·040		65·8	41·8	24·0	75·3	34·1	41·2	54·5	63·7	53·3	−0·1	40·7	51·9	59·4	50
	Kailang	10,087	21·037	20·965	·072	21·009	?		59·3	30·3	29·0	67·3	24·0	43·3	49·9	51·1	41·3	−1·1	29·2	41·1	42·6	37
	Simla (Ridge)		23·246	23·195	·051	23·212	+·052		61·6	50·0	11·6	67·4	45·4	22·0	57·4	58·0	54·7	−1·5	42·6†	46·7	48·5	45
	Chakrata		·401	·318	·053	·365	+·038		65·7	49·3	16·4	70·7	42·7	28·0	61·5	59·8	55·8	−1·0	43·5	51·3	50·0	48
	Ranikhet		24·220	24·150	·070	24·171	+·052		68·1	53·8	14·3	73·2	46·9	26·3	64·4	64·3	59·8	−0·9	47·6	53·8	53·4	51
	Muktesar		22·965	22·903	·062	22·934			65·5	48·2	17·3	71·5	40·9	30·6	60·7	60·4	55·6		42·2	51·9	53·2	49
	Katmandu	4,388	25·666	25·573	·093	25·619	?		79·1	55·9	23·2	85·4	44·7	40·7	70·3	72·8	66·0	−0·9	54·8	63·3	64·6	60
	Darjeeling		23·129	23·059	·070	23·093	+·065		61·7	49·7	12·0	67·6	42·3	25·3	57·0	59·7	55·2	+0·8	46·6	53·2	55·6	51
Hill Stations, Central India.	Mount Abu		26·166	26·096	·070	26·125	+·031		78·0	64·1	13·9	80·4	60·4	20·0	74·6	76·3	70·6	0	53·0	57·7	58·8	56
	Pachmarhi		·556	·468	·087	·508	+·045		77·8	55·8	22·0	81·9	49·2	32·7	74·2	76·1	66·4	−1·3	51·9	59·3	60·5	57
	Chikalda	3,642	·433	·335	·098	·380	+·039		78·2	62·8	15·4	83·2	59·2	24·0	74·1	76·0	70·0	−0·1	55·0	60·2	61·7	59
Hill Stations, S. India.	Wellington		24·286	24·216	·070	24·251	+·032		70·3	55·1	15·2	73·2	46·8	26·4	66·6	65·3	61·4	+0·6	53·8‡	60·0	60·1	58
	Kodaikanal		22·869	22·797	·072	22·830			62·2	50·8	11·4	67·0	44·6	22·4	58·8	57·6	55·3		48·8	55·2	55·1	53
Extra India.	Aden		29·918	29·806	·112	29·862	+·036	·887	88·1	77·4	10·7	91·7	73·9	17·8	85·0	86·3	82·5	−0·4	72·1	74·8	75·0	74
	Perim		·797	·691	·106	·744	+·070	·877	90·5	80·4	10·1	92·7	78·7	14·0	87·6	86·5	84·5	−0·4	77·3	82·0	80·5	79
	Minicoy		·963	·888	·075	·924		·856	86·9			89·4			84·1	84·9				77·7	77·9	
	Zanzibar		30·042†	·917†	·125	·980	+·026	·979†	83·4	75·1	8·3	86·6	73·2	13·4	79·5†	82·7†	79·1†	0	71·3	74·8†	74·6†	73
	Port Victoria (Seychelles)	15	·020	·936	·084	·978	+·023	·917	82·4	75·4	7·0	84·3	72·2	12·1	81·7	81·8	78·8	−0·3	72·7	75·5	75·2	74
	Mauritius (Pamplemouses)	181				·993	+·036	30·123				86·2	56·7	29·5			71·4	−0·6				

† Mean of 30 days. ‡ Mean of 28 days. § Mean of 29½ days.

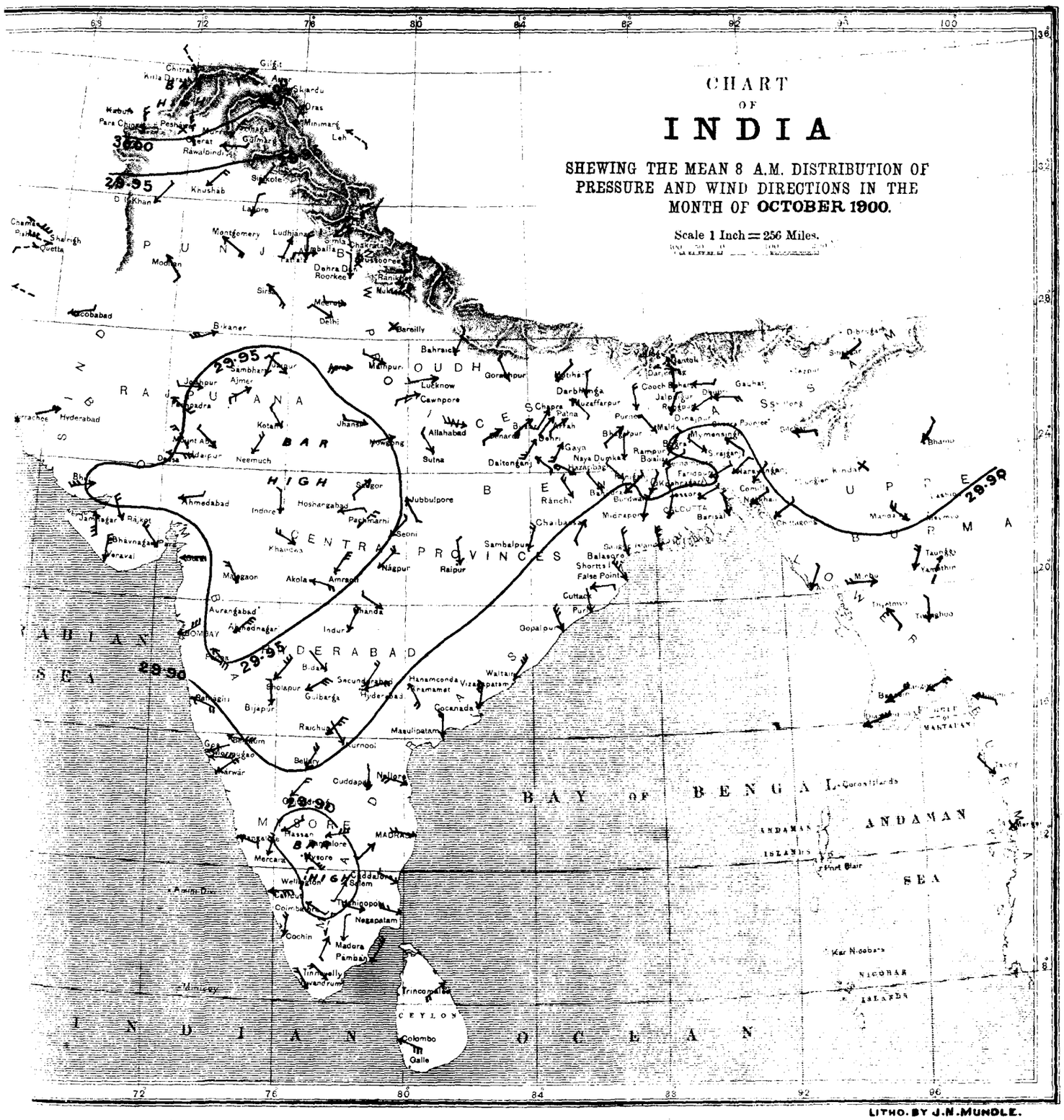
II.—*concluded.*

66 Stations in India, Burma, etc., in October, 1900—concluded.

Vapour Tension. From minimum.	Vapour Tension. Mean 10 hours.	Vapour Tension. Mean 16 hours.	Vapour Tension. Mean daily.	Vapour Tension. Variation from normal.	Humidity. From minimum.	Humidity. Mean 10 hours.	Humidity. Mean 16 hours.	Humidity. Mean daily.	Humidity. Variation from normal.	Cloud. Mean 10 hours.	Cloud. Mean 16 hours.	Cloud. Mean daily.	Cloud. Variation from normal.	Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Wind Steadiness. Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Wind Velocity. Normal.	Rainfall. Total rainfall for the month.	Rainfall. Heaviest rainfall during the month.	Station.	Meteorological Province.
																										%							
·711†	·700	·669	·693		92†	62	55	70		5·0	6·7	5·9		13	4	9	2	14	2	8	4	6	S. 57° E.		8		57*				Periyakulam	South India.
·731	·741	·720	·731	−·020	92	65	59	72	− 4	5·4	6·5	6·0	+0·2	22	1	12	11			5	8	3	N. 36° E.	S. 50° W.	16	29	64*	60			Salem	
·591	·654	·582	·609	+·043	84	64	51	66	+ 1	5·5	6·0	5·8	−0·2		6	14	22	2			8	10	N. 40° E.	N. 28° E.	45	15	130*	143			Chitaldroog	
·595	·608	·577	·593	+·001	93	67	59	73	− 2	5·6	6·3	6·0	+0·2	1	9	13	16	4		3	5	11	N. 32° E.	N. 8° W.	40	8	146*	105			Bangalore	
·581	591	·569	·580	+·001	95	65	59	73	− 2	7·1	7·3	7·2	+0·1		2	26	18	3			5	8	N. 50° E.	N. 42° E.	60	21	59*	63			Hassan	
·634	·645	·589	·623	+·021	96	68	56	73	+ 2	8·0	8·3	8·2	+1·6		4	13	17	5	2	6	7	8	N. 54° E.	N. 42° E.	26	13	171*	185			Mysore	
	·836	·837	·861	+·028		68	70	80	0	6·0	5·6	5·8	−0·2		10	18	11	7	5	2	5	4	N. 54° E.	N. 55° E.	39	17	128	118			Madras	
·575	·545	·529	·550	−·071	75	48	40	54	− 9	7·3	7·9	7·6	+1·1	8	5	9	17	4	1	1	3	14	N. 37° E.	N. 42° E.	34	14	114*	104			Bellary	
·686	·743	·770	·733		74	62	65	67		5·1	5·2	5·2			2	28	8	12	3	6	3		N. 78° E.		48		124				Waltair	
·181	·185	·173	·180	−·006	72	28	23	41	0	0·8	2·0	1·4	+0·8	34		1			1		16	10	N. 73° W	N. 59° W.	37	44	28*	54			Quetta	Hill Station, Baluchistan.
·111‖	·146‖	·250‡	·169	+·069	70‖	51‖	68‡	63	+23	3·4	5·3	4·4	+0·6			1	5	1	12	21	18	4	S. 51° W.	S. 55° W.	61	42	66	44			Leh	Hill Stations, Northern India.
·244	·362	·468	·358	+·043	91	84	78	84	+ 6	3·6	4·5	4·1	+1·3	16	10	4	3	8	6	1	7	7	N. 14° W.	N. 18° W.	10	12	74*	75			Srinagar	
·153	·186	·210	·183	+·049	92	52	56	67	+17	3·5	4·8	4·2	+0·8		1		2	5	17	30	5	2	S. 29° W.	S. 37° W.	72	64	34	37	0·11	0·06	Kailang	
·200†	·211	·247	·218	−·028	55†	44	50	50	− 2	0·8	1·7	1·3	−0·2	14	10	4	1	2	16	8	1	5	S. 36° W.	N. 32° W.	13	15	95	108			Simla (Ridge)¶	
·225	·279	·264	·256	−·028	63	50	52	55	− 5	1·5	2·0	1·8	+0·1	2	3	7	3	12	28	3	1	3	S. 21° E.	S. 64° W.	50	32	220	129			Chakrata	
·269	·310	·302	·294	−·034	64	50	50	55	− 6	1·2	1·7	1·5	−0·2	15	2	1	1		2	23	15	3	S. 67° W.	S. 55° W.	55	51	60*	49			Ranikhet	
·211	·301	·337	·283		61	56	63	60		1·5	2·6	2·1		4	2	6	2	17	8	6	3	14	S. 8° E.		13		122*				Muktesar	
·428	·507	·520	·485	+·011	92	68	64	75	+ 2	3·3	4·2	3·8	−0·1	3		1	13	6	1	2	32	4	S. 80° W.	W.	31¶	38	17	16	1·14	0·53	Katmandu	
·292	·373	·403	·356	−·014	81	79	78	79	− 4	4·7	5·2‖	5·0	−0·8	6	1	2	7	13		13	13	7	S. 40° W.	S. 78° W.	24	21	55*	85			Darjeeling	
·277	·283	·295	·285	−·054	47	33	33	37	− 8	0·8	0·7	0·8	−1·1	2	4	12	3	1	4	13	11	12	N. 67° W.	N. 40° W.	29	9	118*	109			Mount Abu	Hill Stations, C. India.
·347	·334	·346	·342	−·097	78	41	40	53	− 8	2·8	3·3	3·1	−0·1	16	12	19	7	3			1	4	N. 36° E.	N. 25° E.	52	32	113*	75			Pachmarhi	
·344	364	·386	·365	−·101	60	43	43	49	−13	0·5	0·7	0·6	−3·1	41	20							1	N. 2° W.	N. 2° E.	33	40	165*	139	*Nil*	*Nil*	Chikalda	
·406‡	·452	·468	·442	−·002	94‡	69	74	79	− 4	7·0	8·1	7·6	+0·2	11	13	3	3	17	4	3		4	S. 89° E	S. 36° E.	19	34	61	54			Wellington**	Hill Stations, S. India.
·330	·402	·413	·382		87	81	87	85		6·8	8·0	7·4		9	6	5	3	9	4		1	25	N. 19° W.		29		195				Kodaikanal	
·724	·729	·717	·723	+·003	76	66	57	65	+ 1	1·6	0·8	1·2	−0·5		1	33	11	9	1	5		2	N. 68° E.	S. 80° E.	63	56	§301*	316			Aden	Extra India.
·895	1·030	·969	·965	+·216	86	78	76	80	+19	0·4	0·3	0·4	−0·8				13	46	3				S. 52° E	S. 62° E.	93	84	490*	444			Perim	
	·869	·864				74	72			3·7	3·5	3·6			10	3			4	5	15	25	N. 57° W.		66		140*				Minicoy	
·719	·826†	·752†	·766	−·005	82	80†	67†	76	− 2	7·4†	4·9†	6·2	+1·6	1	1	4	3	9	25	10	5	2	S. 2° W.	S. 3° E.	55	53	§130*	120			Zanzibar	
·771	·804	·791	·789	+·009	87	74	72	78	0	5·3	5·7	5·5	−0·7		1	1	5	39	11	1	4		S. 37° E.	S. 44° E.	76	59	231	183	7·08	2·22	Port Victoria (Seychelles).	
			·543					72	0																		252	266	1·59	0·72	Mauritius (Pamplemousses)	

‖ Mean of 29 days. ¶ Wind variable 1. ** Wind variable 4. * Corrected.

G. I. C. P. O.—No. 118 Meteor.—5-2-1901.—885

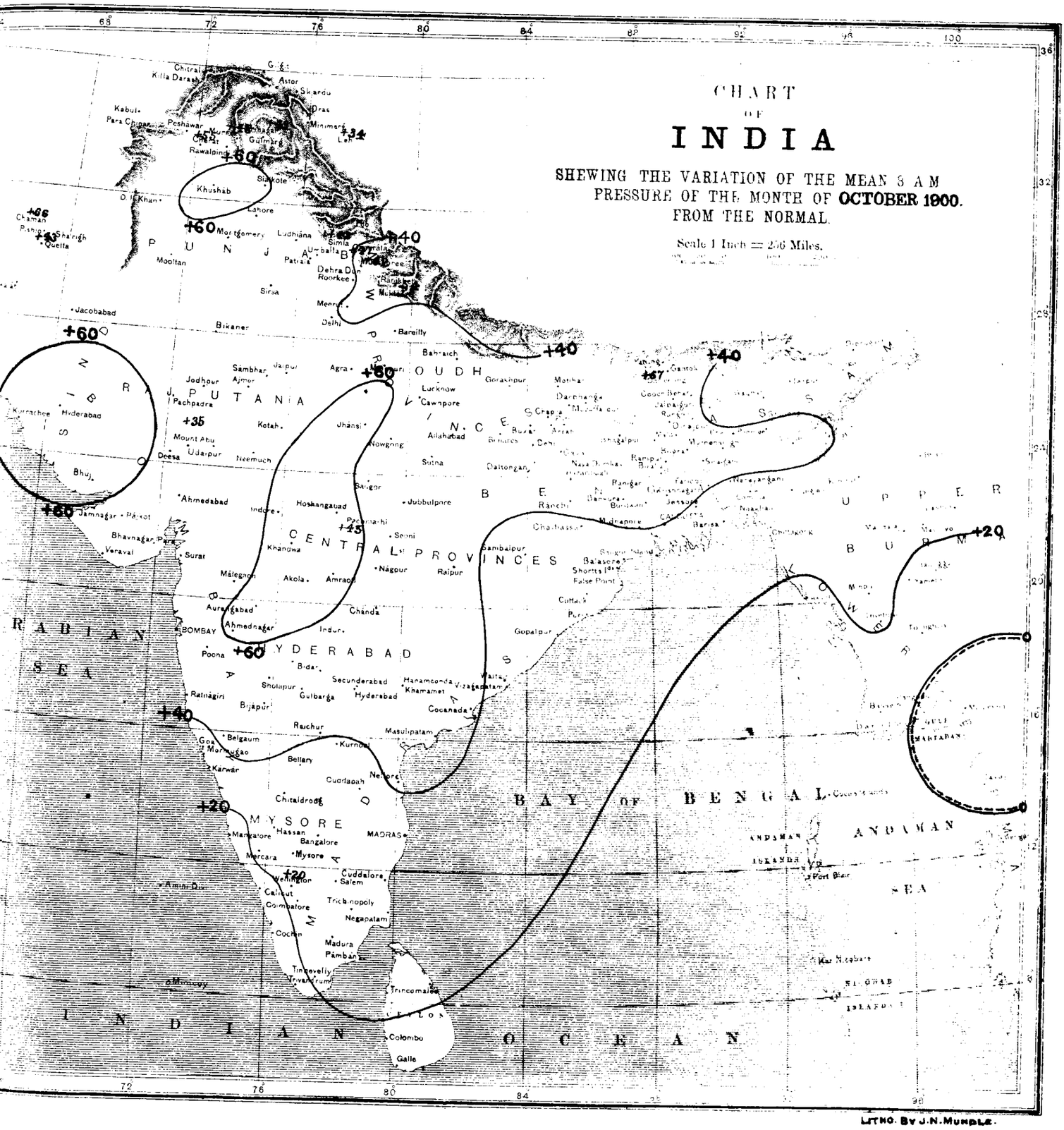


Explanation.

he lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric e 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 observations, and by comparison with the ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal d by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Depart- 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 e actual.

e 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 t'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 icated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during uth 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	"	" "	" "



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 close to each other, one continuous and the other broken or dotted, represent the line of no variation, the dotted line facing the area of excess pressure or negative variations.

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

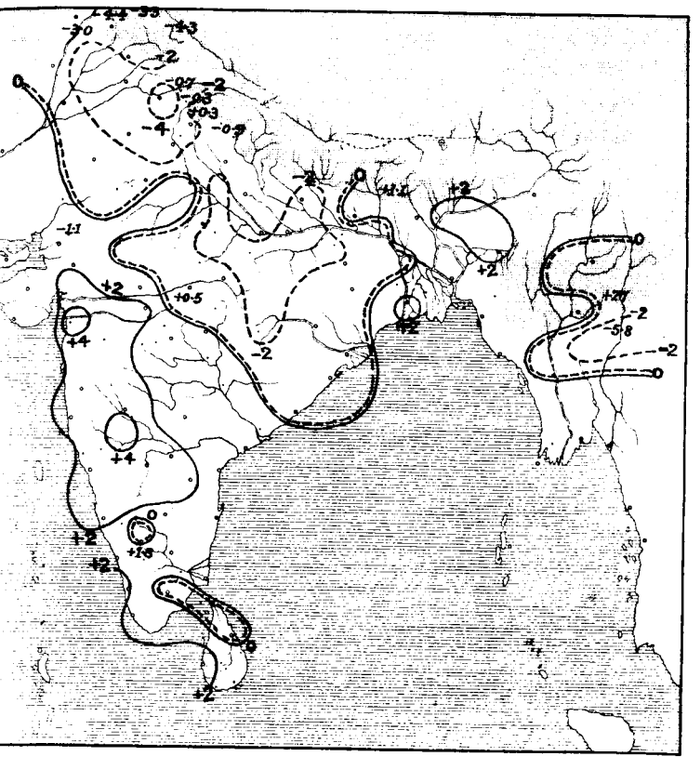
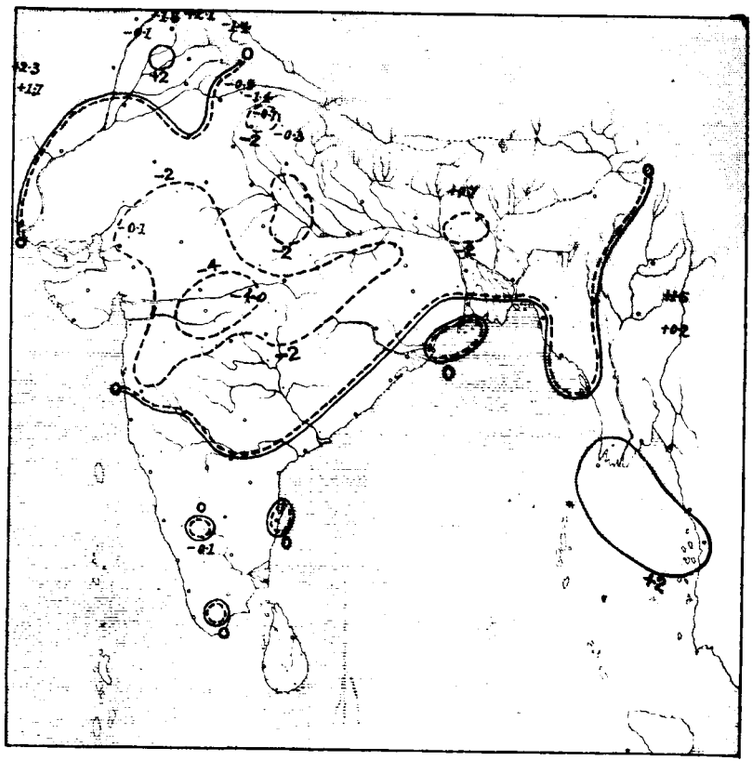


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

tinuous lines indicate that the mean maximum of month was in ess by amounts indicated by the attached numbers. Broken or dotted s that it was in defect by the amounts indicated by the attached nbers. Double lines are the lines of no variation, the broken line facing 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 the amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

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

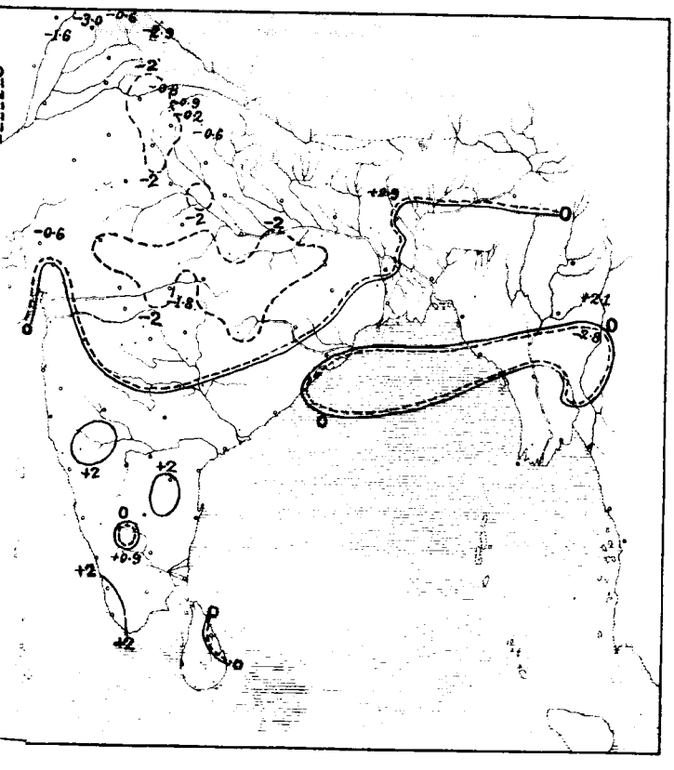
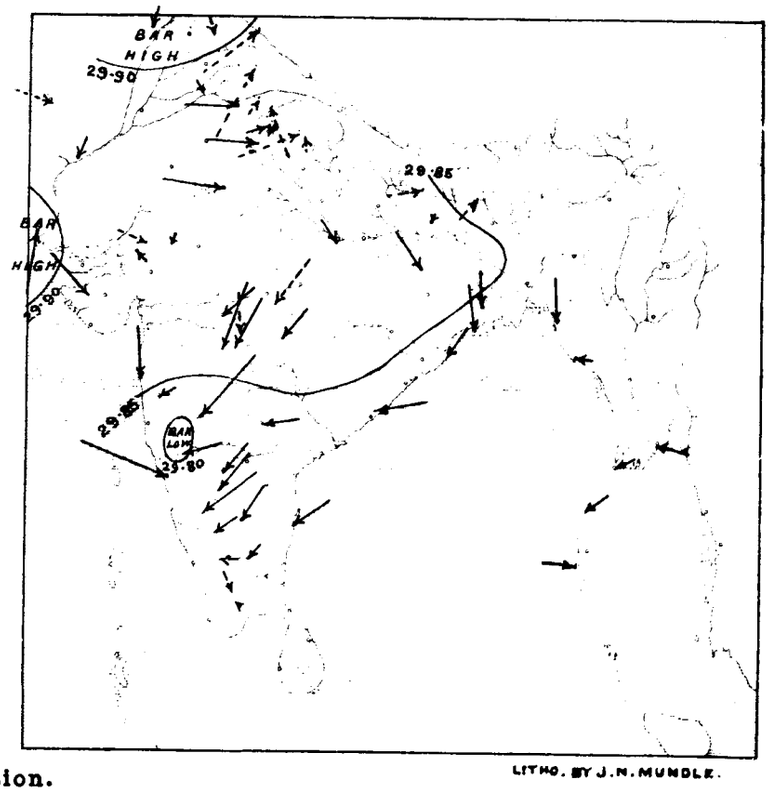


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF OCTOBER 1900.

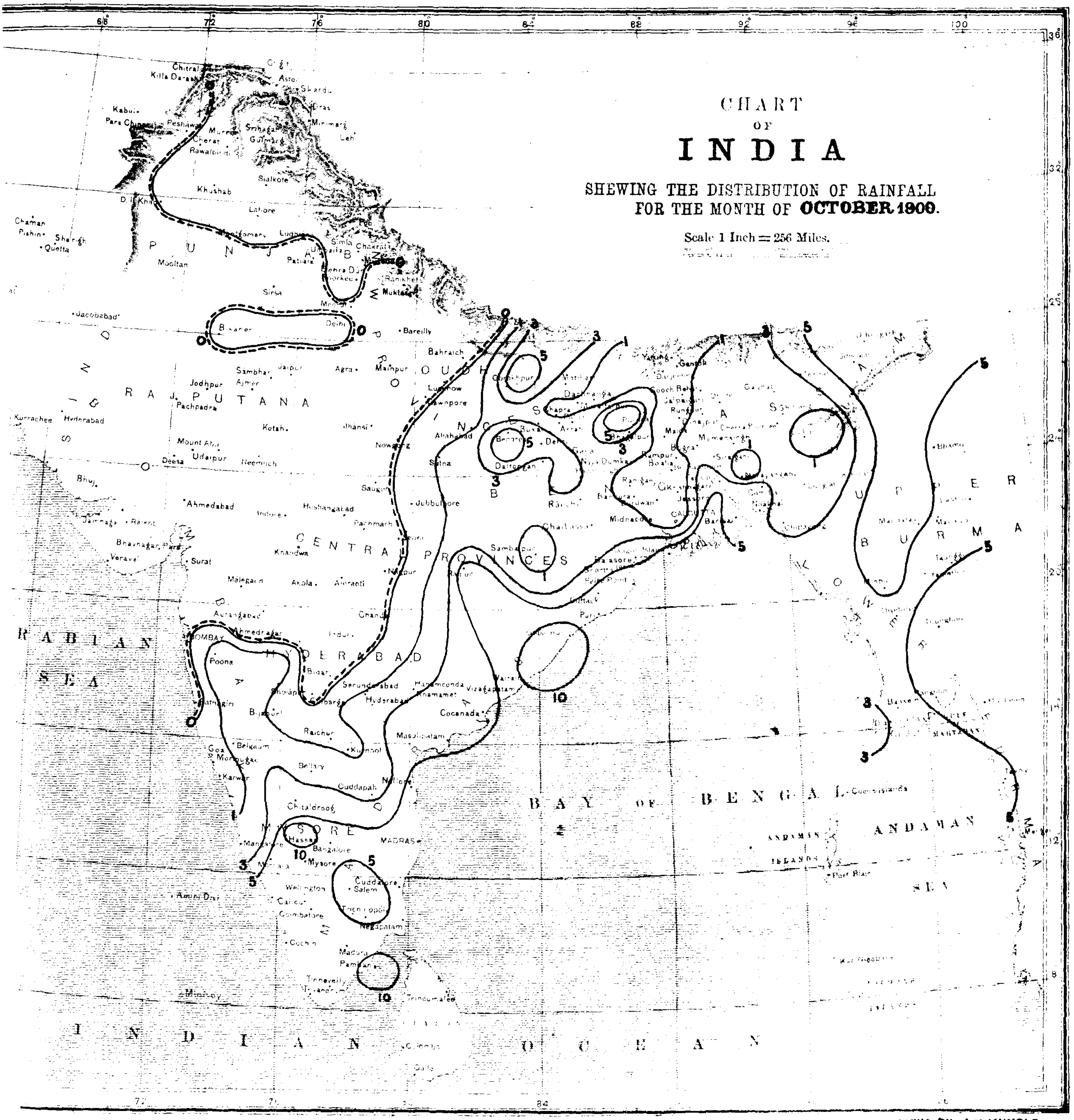


LITHO. BY J. N. MUNDLE.

Explanation.

uous lines indicate that the mean daily temperature of month excess by amounts indicated by the attached numbers. Broken tted lines that it was in defect by the amounts indicated by the ed numbers. Double lines are the lines of no variation, the broken cing the area of deficient temperature.

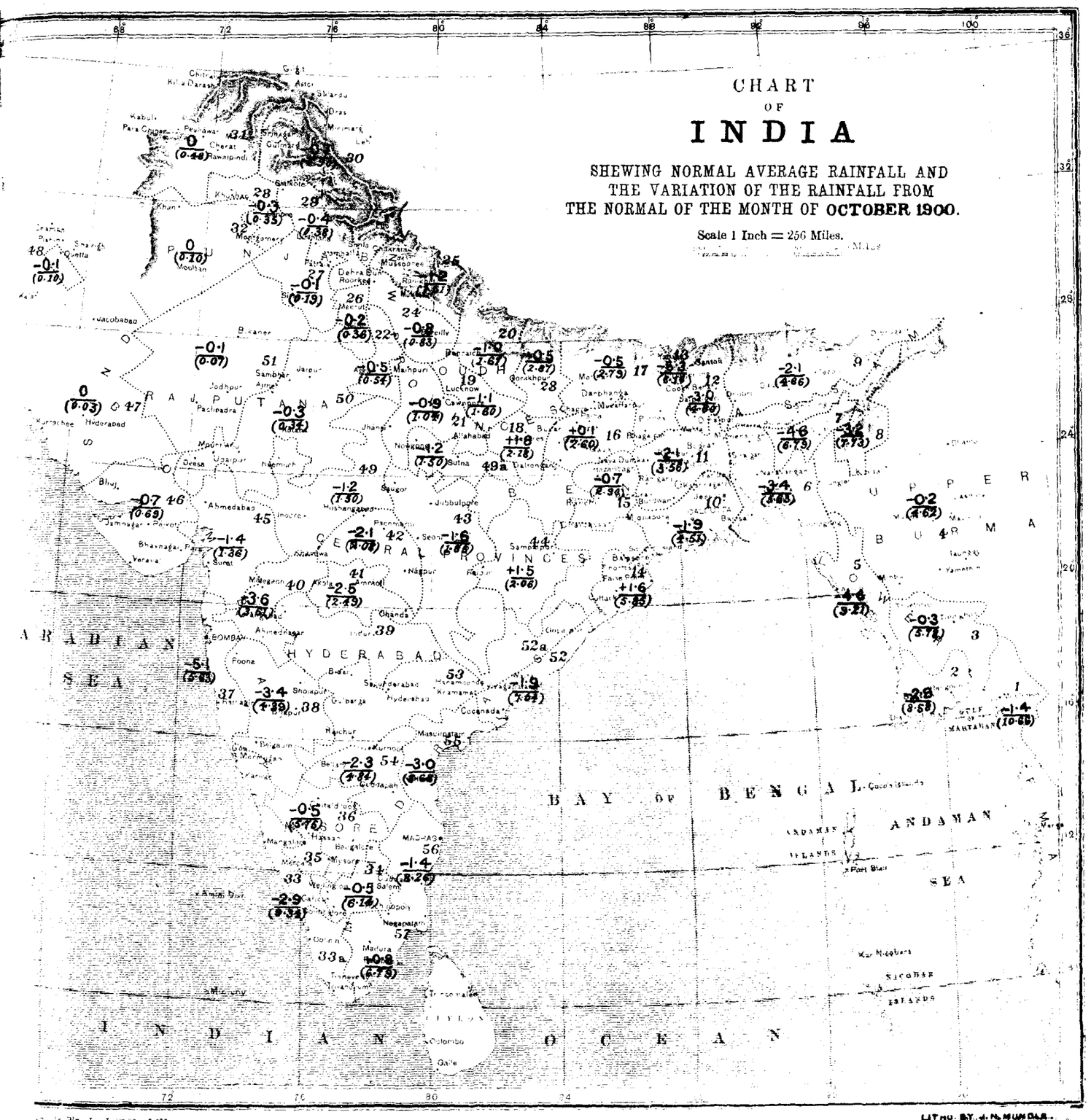
The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, the only alteration made being that pressures are reduced to constant gravity (45°). The isobars are given for each twentieth of an inch. The arrows show the directions of the resultants of the wind recorded at 10 and 16 hours, and by their lengths the percentage of the observations expressing the numerical value



LITHO. BY J. N. 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 used in the preparation of this Chart are the rainfall returns of all the observatories in India (182 in number), except those at the Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of ch from those 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 variations of the rainfall of the month to tenths of an inch from the normal over the whole of India and Burma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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 referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

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

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, NOVEMBER 1900.

INTRODUCTION.

THIS review of the weather in India during the month of November 1900 is based on observations taken daily at 8 A.M. at 220 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 weekly rainfall telegrams received during the month from District Officers throughout India, 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 November, 1900.

The normal meteorological conditions of the month of November are in many respects similar to those of October, as the month forms a part of the transition period during which the south-west monsoon current is retreating from the Indian land and sea areas.

Pressure usually increases in Northern India, and hence the gradients favouring the extension and increasing intensity of the north-east winds in the Bay and the Arabian Sea become steeper during the month. Pressure (8 A.M.) at the commencement of the month ranges normally between 29·90″ in the Punjab and 29·86″ in the centre and south of the Bay, and at the end of the month between 30·10″ in the Punjab and Central Rajputana and 29·90″ in the south of the Bay. The total range of pressure hence usually increases from an average of one-tenth to an average of two-tenths of an inch during the month.

The most important feature in the mean distribution of pressure is the existence of a very shallow belt or trough of low pressure which stretches across the centre of the Bay from the Coromandel coast to the Andamans and which defines the area over which the humid south-west winds across the entrance and south of the Bay recurve through south, south-east and east and finally blow as north-east winds on the Coromandel Coast. These winds usually give moderate to heavy rain in Central and South Madras and Mysore during the month.

Over the whole of Northern and Central India the weather is almost invariably fine with clear skies and light winds.

North-westerly to westerly winds prevail in the Gangetic Plain, and northerly winds in Bengal. In Rajputana and Central India winds range between north and north-east and are light and somewhat unsteady. Easterly winds obtain in the Peninsula, the air movement in that area forming part of the general drift from north-east to south-west across the north of the Bay and the north and centre of the Arabian Sea.

Temperature falls rapidly in North-Western India during the month, and the mean temperature of the month ranges from 62° in the North Punjab to 80° in the

Andamans, the south of the Bay and West Ceylon. The daily range of temperature is always large in Northern India in November, in consequence of the clearness and dryness of the atmosphere, and exceeds 30° over the greater part of the Punjab, Sind, Rajputana, Central India, Berar, the Central Provinces and the North-Western Provinces.

The month is almost invariably rainless over the whole of India to the north of Lat. 21°N., except in Assam and Bengal which occasionally receive rain during the existence of the cyclonic storms of the month. These storms usually originate in the centre of the Bay and travel westwards to the Coromandel or North 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 South Coromandel coast districts, south of Madras and in West Mysore, and on the Nilgiris, Palnis and other hills of Southern India.

The following gives a summary of the more important changes of meteorological conditions and the chief features of the weather in India during November 1900.

The weather over India during November was exceptionally quiet and fine and was of one uniform character throughout. One or two very slight and feeble disturbances of the cold weather type appeared in the extreme north-west, but except on one occasion when rain followed and temperature fell quickly, they occasioned no important change in the weather. At other times pressure was steadily high over North-West India and low over the centre and south of the Bay.

On the 1st, one of these shallow depressions was shown over North-West India, but the weather was fine and the mean temperature in considerable to large excess over North-West India. These conditions continued during the second when the depression disappeared. The following gives temperature data for North-West India :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st November.	Mean minimum temperature, 1st November.	Mean daily temperature, 1st November.
	°	°	°
North-Western Provinces and Oudh	+1·0	+0·1	+0·6
Punjab	+0·8	+4·6	+2·7
Sind	+2·6	+4·2	+3·4
Rajputana	+4·8	+3·5	+4·2
Gujarat	+3·6	+2·2	+2·9
Central India	+2·6	+1·9	+2·3

There was light rain in Burma on the 1st and 2nd, and temperature was normal in that province and low in the south of the Peninsula. This is shown below :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	1st November.	2nd November.
	°	°
Burma	+0·8	+0·7
Mysore	−2·9	−3·5
Madras Coast	−1·0	−1·0
Madras Deccan	−1·6	−2·0
South India	−1·4	−2·3

From the 2nd to the 6th the weather was quiet and fine. High pressures were established all over North-Western and Northern India with a generally high temperature and the rainfall both in Burma and in the south of the Peninsula was insignificant. On the 6th another slight depression made its appearance in the extreme north-west and temperature in that area became very high; at the same time some rain fell along the Madras coast. The depression disappeared on the 8th and the ordinary conditions noticed above were established over India and lasted till the 10th.

From the 6th to the 12th the most important feature in the weather was an area of relatively low temperature which prevailed steadily across the head of the Peninsula. The following gives temperature data from the 6th to the 12th for Bengal, Orissa, Chota Nagpur, the Central Provinces, Berar and the Bombay Deccan, showing the extent of this feature of the weather :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	6th November.	7th November.	8th November.	9th November.	10th November.	11th November.	12th November.
	°	°	°	°	°	°	°
Bengal	−0·3	+0·5	+1·7	+2·5	+0·9	−0·3	+0·3
Orissa	0	−2·6	−2·4	−0·4	+1·2	+0·2	−0·6
Chota Nagpur	−1·1	−1·3	−1·7	0	−0·2	−0·1	+0·4
Central Provinces.	−0·3	−0·9	−0·1	−0·6	−1·0	−0·4	−0·2
Berar	−0·2	−0·9	+0·3	−0·2	−2·3	−1·5	−1·9
Bombay Deccan	+1·9	+1·3	−0·3	−1·6	−0·9	−1·5	−1·7

On the 10th and 11th another depression appeared in the extreme north-west, but it proved to be of no consequence and its effect on the weather was insignificant.

On the 14th rain and snow commenced in Baluchistan and continued during the 15th. On the 16th a small depression was shown near Jacobabad, and this depression advanced into Rajputana to which province and to Central India it gave light rainfall. This rainfall occasioned a brisk fall of temperature all over North-West India as is shown by the following which gives comparative temperature data for North-West India from the 14th to the 18th :—

Province or Division.	Mean temperature change in 24 hours preceding 8 A.M. of				
	14th November.	15th November.	16th November.	17th November.	18th November.
	°	°	°	°	°
North-Western Provinces and Oudh.	+2·2	+2·9	+3·2	+2·4	+1·8
Punjab . . .	+5·0	+5·8	+5·4	+1·5	+2·0
Sind	+4·8	+5·2	+2·1	+1·1	+1·1
Rajputana . .	+3·4	+4·2	+5·5	—1·5	+2·0
Gujarat . . .	+2·0	+2·8	+3·6	+2·0	+2·4

In the meantime pressure on the 17th began to give way in Ceylon and the extreme south of the Peninsula, while it remained steady over the centre of the Peninsula. Pressure gradients hence increased over the south of the Peninsula and the south of the Bay and a rainy period set in over Southern India. This period lasted until the 23rd and during that time the following heavyish falls of rain were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Tinnevelly . .	Kulasekarapatnam .	19th November	5·40
	Kuttanguli .	" " .	3·35
	Kayalpatnam . .	20th " .	5·90
	Keeranur . . .	" " .	5·56
	Kulasekarapatnam .	" " .	4·86
	Arasada . . .	" " .	4·50
	Tuticorin . . .	" " .	3·83
	Srivaikuntam . .	" " .	3·36
Madura . . .	Morekulam . .	" " .	3·02

The fall of temperature noticed over North-West India on the 17th quickly disappeared; the thermometer rose briskly and very high temperatures were reported from the 19th to the 26th over North-Western, Western and Central India. The following gives comparative temperature data for the different divisions in these regions for the above period :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	19th Nov.	20th Nov.	21st Nov.	22nd Nov.	23rd Nov.	24th Nov.	25th Nov.	26th Nov.
	°	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	+1·9	+2·2	+3·5	+4·8	+6·0	+4·2	+2·7	+2·8
Punjab . . .	+3·5	+3·6	+5·0	+4·6	+4·1	+3·8	+4·4	+3·5
Sind	+2·9	+3·9	+3·6	+4·8	+5·0	+5·8	+8·2	+7·5
Rajputana . . .	+5·4	+6·9	+6·4	+7·3	+7·0	+2·5	+4·6	+3·8
Gujarat . . .	+6·2	+5·5	+3·5	+4·9	+5·8	+5·1	+6·7	+6·7
Central India . .	+4·6	+5·4	+5·6	+7·1	+6·8	+6·2	+4·0	+2·6
" Provinces .	+3·1	+2·5	+3·2	+3·8	+5·2	+5·0	+4·4	+2·3
Berar	+3·4	+4·7	+4·4	+3·4	+4·5	+4·9	+5·8	+3·9

Another very feeble cold weather depression appeared in the north-west on the 29th, but the disturbance proved to be of no consequence and its effect on the weather insignificant. The month ended very quietly with fine weather generally and with higher temperatures than usual in all divisions.

Pressure:—The mean pressure averaged 0·004″ below the normal and was hence nearly normal. Relatively to this general effect pressure was below the normal over North Bombay, the whole of North-West India, the Gangetic Plain and along the foot of the Eastern Himalayas. The deficiency was generally small, but was more than 0·02″ at Veraval (—028″), Surat (—0·022″), Jacobabad (—0·036″), Mooltan (—0·032″), Dera Ismail Khan (—0·027″), Montgomery (—0·022″), Delhi (—0·021″), Meerut (—0·024″) and Agra (—0·0_8″). In all other parts of India pressure, relatively to the general condition, was in excess. The excess was generally small but was moderate over the Mid-Madras coast (Cocanada +0·032″ and Masulipatam +0·033″) as well as in the Nizam's dominions (Hyderabad +0·025″) and locally at Coimbatore (+0·023″) and Amraoti (+0·023). The pressure changes, from day to day, were generally slight or moderate and the general distribution of pressure was very steady throughout the month.

The following gives the mean pressure variations and anomalies of the eleven meteorological divisions :—

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A.M. pressure of November 1900.	Pressure anomaly, November 1900.
	"	"
Burma Coast and Bay Islands	0	+·004
Burma Inland	—·008	—·004
Assam	—·007	—·003
Bengal and Orissa	—·001	+·003
Gangetic Plain and Chota Nagpur	—·014	—·010
Upper Sub-Himalayas	—·019	—·015
Indus Valley and North-West Rajputana	—·028	—·024
East Rajputana, Central India and Gujarat	—·013	—·009
Deccan	+·007	+·011
West Coast	—·004	0
South India	+·013	+·017

Temperature:—The variations of the mean temperature conditions of the month were broadly marked, the chief feature having been the general excess over India and the slight defect over the Bay area and Lower Burma.

The mean day or maximum temperature was normal or in trifling defect of the average in Burma and at several stations along the Madras coast and was in moderate defect at Trincomalee (—2°·3). It was in slight to moderate excess over Upper Burma, Cachar and Lower Bengal and was in trifling excess in other parts of North-East India. Over the remainder of India it was in considerable to large excess. The excess was more than 4° in the dry area of the Deccan (Poona +4°·9) as well as over Khandesh, Gujarat and the west of the Central Provinces and of Central India (Khandwa +6°·4); it was more than 5° in Upper Sind (Jacobabad +5°·4) and was locally more than 4° at Lahore (+4°·1).

The mean night or minimum temperature was lower than usual over Burma, Assam, Bengal, (except West Bengal), Orissa, Ganjam, across the head of the Peninsula and at some stations in South Madras. The deficiency was generally small but was more than 2° in parts of Burma (Toungoo —3°·4) and in Orissa (False Point—2°·2). Over the remainder of India the mean minimum temperature was in excess. The excess was large in the north-west and exceeded 6° in parts of the Punjab (Rawalpindi +9°·0), Upper Sind (Jacobabad +7°·7), East Rajputana (Ajmer +6°·5), and the west of the North-Western Provinces (Jhansi +6°·8). The excess was considerable in Tenasserim (Mergui +2°·6).

The mean temperature, on the mean of the month, was in moderate to trifling defect of the average over part of Burma and the Bay area, the largest deficiency having been —2°·0 at Toungoo. With a few local and unimportant exceptions the mean temperature was in excess in all other parts of the Indian region. The excess was trifling along the West coast, but was considerable to large over North-West India and was more than 4° over Baluchistan, the Punjab (except the east), the west of the North-Western Provinces, Rajputana, Sind and part of Gujarat. The excess was absolutely greatest at Jacobabad where it amounted to 6°·6. At all the hill stations the mean temperature exceeded the normal, largely so at Quetta and Srinagar and slightly so at Wellington.

The following table gives variation data of the mean temperature conditions of the month for the eleven meteorological provinces of India :—

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, November 1900.	Mean minimum temperature, November 1900.	Mean daily temperature November 1900.
	°	°	°
Burma Coast and Bay Islands	+0·1	—1·7	—0·8
Burma Inland	+1·2	—0·2	+0·5
Assam	+1·7	—0·1	+0·9
Bengal and Orissa	+1·7	—0·5	+0·6
Gangetic Plain and Chota Nagpur	+1·8	+1·3	+1·6
Upper Sub-Himalayas	+1·7	+4·6	+3·2
Indus Valley and North-West Rajputana.	+3·1	+5·2	+4·2
East Rajputana, Central India and Gujarat.	+3·5	+4·5	+3·9
Deccan	+3·1	+1·1	+2·1
West Coast	+2·4	+1·2	+1·8
South India	+1·3	+0·4	+0·8

Winds.—The winds were less easterly than usual at the Bay Islands, but were approximately normal in Burma. In Bengal the wind was unusually westerly and this variation also prevailed in the Upper Sub-Himalayan region where also the winds were light and generally less steady than the average. In North Rajputana and the Punjab the wind's direction was also abnormally westerly, while the velocity was low and the wind was very unsteady. In the Deccan and South India the wind was somewhat more easterly than the average, but the steadiness was even greater than usual. At the hill stations the variations from the normal were irregular. In the South-East Trades region the wind was several degrees more southerly than the average.

Humidity.—Over the whole of Burma, North-East India and the east and south of the Peninsula a slight to moderately lower humidity than usual prevailed while over the Deccan, where the rains of the previous south-west monsoon had to a great extent failed, the air was

unusually dry. The deficiency was greatest at Sholapur and Buldana (each —13%), Bellary (—11%), Belgaum (—10%), and Hyderabad (—10%). On the other hand, in Baluchistan and the extreme north-west of India higher humidities than usual were reported, the excess having been greatest at Quetta (+19%), Lahore (+9%), Srinagar (+8%), and Ludhiana and Jacobabad (each +6%).

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, November 1900.	Variation of actual from normal, November 1900.	Average actual, November 1900.	Variation of actual from normal, November 1900.
	"	"	%	
Burma Coast and Bay Islands	·814	—·018	76	— 3
Bengal and Orissa	·609	—·024	72	— 4
Gangetic Plain and Chota Nagpur.	·493	+·020	64	— 2
Upper Sub-Himalayas	·379	+·049	59	+ 4
Indus Valley and North-West Rajputana.	·412	+·072	53	+ 3
East Rajputana, Central India and Gujarat.	·324	+·035	39	0
Deccan	·375	—·060	46	— 8
West Coast	·682	—·018	67	— 5
South India	·576	—·010	67	— 4

Cloud.—The variations in the amount of cloud were similar in general character to those of the aqueous vapour conditions. There was some excess over the greater part of North West India, a slight local excess in the Coromandel coast districts, from Madras southward, and less general cloudiness than usual elsewhere. The excess was greatest at Quetta and the deficiency greatest on the Burma coast.

METEOROLOGICAL PROVINCE.	MEAN CLOUD AMOUNT.	
	Average actual, November 1900.	Variation of actual from normal, November 1900.
Burma Coast and Bay Islands	3·2	—1·1
Bengal and Orissa	2·0	—1·0
Gangetic Plain and Chota Nagpur	1·1	—0·4
Upper Sub-Himalayas	1·5	+0·2
Indus Valley and North-West Rajputana	2·5	+0·9
East Rajputana, Central India and Gujarat	1 8	+0·3
Deccan	2·0	—0·6
West Coast	1·6	—0·7
South India	5·4	—0·1

Rainfall.—The rainfall and snowfall of the month were heavy over the north-west frontier of India and over the countries to the westward, but the fall ceased at the frontier and with a few local exceptions the whole of Northern and Central India and the head of the Peninsula was actually or practically rainless. Rain was, however, received in Burma and Assam and over the southern half of the Peninsula. The rainfall was in excess of the normal in Tenasserim, Baluchistan, Western Rajputana and South Madras; it was normal in the Brahmaputra Valley and more or less in defect elsewhere. There was no cyclonic storm over the Bay during the month and hence there were no very heavy falls of rain over the Peninsula, though slightly disturbed conditions occurred at times and the rainfall temporarily increased in amount in the extreme south. The following table gives comparative rainfall data of the eleven meteorological provinces of the Empire:—

METEOROLOGICAL PROVINCE.	RAINFALL.			
	Mean actual for November 1900.	Mean normal for November.	Variation of actual from normal, November 1900.	Percentage variations from normal.
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands	2·23	4·05	—2·17*	—54
Burma Inland	0·81	1·39	—0·58	—42
Assam	0·57	0·85	—0·28	—33
Bengal and Orissa	0·04	0·96	—0·92	—96
Gangetic Plain and Chota Nagpur.	0	0·23	—0·23*	—100
Upper Sub-Himalayas	0	0·15	—0·15*	—100
Indus Valley and North-West Rajputana.	0·06	0·16	—0·10	—63
East Rajputana, Central India and Gujarat.	0·05	0·27	—0·22*	—81
Deccan	0·15	0·90	—0·74*	—82
West Coast	1·10	3·07	—1·97	—64
South India	3·86	6·40	—2·53*	—40

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

Atmospheric Pressure.

The mean pressure of the Indian land area in the month of November 1900 was only ·004 below the average and was hence nearly normal. There was hence a considerable difference in the pressure conditions of the month under review compared with those of the corresponding months of 1899 and 1898 when the variations were +·030 and —·026 respectively. Pressure exhibited its greatest excess over the Central Madras coast districts and was, relatively to surrounding districts, high over the whole of the centre and east of the Peninsula, the Central Provinces, the Bay and part of Burma, while it was low in Ceylon over the west coast of the Peninsula and Kathiawar and the whole of Northern India. The largest deficiency was in the Indus Valley.

Pressure relatively to the general condition was in defect over North Bombay, North-West India, the Gangetic Plain and the Submontane districts of North-East India. The deficiency was greatest over part of North-West India where the following stations reported a variation of—·020" or more :—

Division.	Station.	Variation from normal of mean 8 A. M. pressure of November 1900.	Pressure anomaly, November 1900.
		"	"
North-West India.	Jacobabad	—·040	—·036
	Mooltan	—·036	—·032
	Agra	—·032 ?	—·028 ?
	Dera Ismail Khan	—·031	—·027
	Dehra Dun	—·030	—·026
	Meerut	—·028	—·024
	Montgomery	—·026	—·022
	Delhi	—·025	—·021
	Peshawar	—·024	—·020
	Ajmer	—·024	—·020

In addition to the above there was an area of marked deficiency of pressure over part of Gujarat due apparently to shallow depressions which have entered that area from the north of the Arabian Sea. The following gives data for those stations at which the deficiency exceeded ·020".

Province.	Station.	Variation from normal of mean 8 A. M. pressure of November 1900.	Pressure anomaly, November 1900.
		"	"
Gujarat	Bhavnagar Para	—·034	—·030
	Veraval	—·032	—·028
	Surat	—·026	—·022

Over the whole of the Peninsula except at a few stations along the West coast as well as over the Central Provinces, West Bengal, the Bay area and Burma pressure, relatively to the general condition, was in excess, but the excess was generally small and only exceeded 0·02" at the following stations in the Peninsula :—

Area.	Station.	Variation from normal of mean 8 A. M. pressure of November 1900.	Pressure anomaly, November 1900.
		"	"
Peninsula	Masulipatam	+·029	+·033
	Cocanada	+·028	+·032
	Hyderabad (d)	+·021	+·025
	Nellore	+·020	+·024
	Madras	+·019	+·023
	Amraoti	+·019	+·023
	Coimbatore	+·019	+·023
	Waltair	+·018	+·022
	Raichur	+·018	+·022

The above shows a moderate excess of pressure over the central Madras coast districts. This was mainly due to the excessive pressures which prevailed over the Bay area during the second half of the month and were related to the deficient rainfall around the Bay.

The variations of pressure at the hill stations were generally considerable at the Himalayan stations and slight and irregular in Baluchistan and the centre and south of India. The following gives data for ten pairs of stations.

Hill Station.	Variation of actual from normal pressure, November 1900.	Plain Station.	Variation of actual from normal pressure, November 1900.	Vertical pressure anomaly (Hill-Plain).
	"		"	"
Leh	+·043	Lahore	—·022	+·065
Quetta	—·008	Jacobabad	—·040	+·032
Murree	+·024	Peshwar	—·024	+·048
Simla	+·020	Ludniana	—·015	+·035
Chakrata	+·019	Roorkee	—·020	+·039
Ranikhet	+·020	Bareilly	—·018	+·038
Darjeeling	+·033	Dhubri	—·019	+·052
Pachmarhi	+·005	Seoni	+·015	—·010
Mount Abu	—·022	Deesa	—·017 ?	—·005
Wellington	+·006	Coimbatore	+·019	—·013

The preceding data show that the vertical pressure anomalies were strongly positive in the case of the Himalayan hill region and Baluchistan but were slightly negative in the case of the central and southern hill areas:—

The chief features of the pressure distribution of the month were:—

(1) Deficiency of pressure over North Bombay, North-West India, the Gangetic Plain and the Submontane regions of North-East India.

(2) Considerable deficiency over the Indus Valley and part of Gujarat.

(3) Excess of pressure over the Peninsula, the Central Provinces, the Bay area and Burma.

(4) Considerable excess over the central Madras coast.

(5) Positive vertical pressure anomalies in the case of the Baluchistan and Himalayan hill districts and slight negative anomalies in the other hill regions.

Barometric depressions and cyclonic storms of the month.

There were no barometric disturbances of any importance during the month under review, though the weather was feebly disturbed at different times during the month both over the Bay and in North-West India.

On the 1st November a shallow depression was shown over Sind. This depression was accompanied with high temperatures over North-West India and a slight and irregular cyclonic circulation of the winds. The following gives the temperature variations from the normal at various selected stations in the north-west for the 1st and 2nd:—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
1st November 1900.	Chaman	+7·0	+10·6	+8·8
	Quetta	+6·7	+ 8·3	+7·5
	Bikaner	+4·6	+ 9·1	+6·9
	Jacobabad	+5·7	+ 5·8	+5·8
	Montgomery	+1·2	+ 9·3	+5·3
	Lahore	+2·9	+ 7·0	+5·0
	Rajkot	+4·5	+ 4·8	+4·7
	Surat	+7·2	+ 2·2	+4·7
	Khushab	+1·7	+ 7·5	+4·6
	Jhansi	+2·8	+ 6·3	+4·6
	Ajmer	+4·4	+ 4·4	+4·4
2nd November 1900	Jacobabad	+6·0	+12·8?	+9·4
	Quetta	+5·3	+ 8·7	+7·0
	Chaman	+7·5	+ 6·1	+6·8
	Sirsa	+2·7	+11·3	+7·0
	Jaipur	+6·4	+ 7·4	+6·9
	Sialkot	+3·1	+ 9·6	+6·4
	Lahore	+4·3	+ 7·7	+6·0
	Ajmer	+4·8	+ 5·5	+5·2
2nd November 1900	Jhansi	+2·1	+ 7·8	+5·0
	Bikaner	+5·2	+ 4·6	+4·9
	Rawalpindi	+4·0	+ 5·7	+4·9
	Montgomery	+0·9	+ 8·7	+4·8
	Mooltan	+3·1	+ 6·3	+4·7
	Sambhar	+5·3	+ 3·9	+4·6
	Deesa	+5·6	+ 3·5	+4·6
	Ahmedabad	+5·5	+ 3·4	+4·5
	Surat	+6·2	+ 2·1	+4·2

The disturbance disappeared during the second.

On the 4th a shallow low pressure area was shown over the Andaman Sea, but it filled up on the 6th and was throughout of no importance, though it slightly influenced the weather and winds in Lower Burma and Tenasserim during its existence.

On the 6th the barometer was falling quickly in the Punjab and fresh southerly winds were reported from Chaman. On the following day, the 7th, a shallow depression was shown over Sind and the Punjab, but by the 8th the depression had disappeared without materially affecting the weather though, as is usual under such conditions, the heat was much above the normal over North-West India. On the 9th, 10th and 11th, another very feeble shallow depression entered North-West India from the westward, but there was no change of weather which remained fine, quiet and abnormally warm. On the 14th pressure was giving way quickly in Baluchistan and slight to moderate rain had fallen. These conditions continued during the 15th, and on the 16th a small depression was shown near Jacobabad. This depression apparently passed on eastward into Rajputana where it filled up. It occasioned a few light showers in Rajputana and the west of Central India.

In the mean time about the 15th pressure fell in the extreme south of the Peninsula and in Ceylon, pressure gradients became steep in the extreme south and between the 17th and the 21st fair rain fell over the south of the Peninsula. There was, however, no distinct depression. On the 29th pressure again gave way briskly over Baluchistan and the Indus Valley but no depression appeared and the weather was quiet 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.

The early snowfall has apparently been heavier than usual in Persia, Afghanistan, Baluchistan and the inner Himalayan ranges but has been unimportant on the outer ranges. The following reports have been received.

I.—AFGHAN MOUNTAIN DISTRICTS.

(1) *Wana* :—On the the 15th and 16th snow fell on the following hills:—

11,000 feet	Marwattai . . .	6 Inches.
6,500 feet	Kanegorum . . .	5 Inches.
11,000 feet	Pirghal	12 Inches.

At the close of the month snow still remained on the Marwattai and Pirghal hills but had melted from the peaks of the Kanigorum hills.

The snowfall of the present year has been heavier than that of last year.

(2) *Kurram*:—Snow fell as follows :—

1st—Snow fell down		to about		10,000 feet
13th	Do	Do	Do	9,000 „
14th	Do	Do	Do	8,000 „
15th	Do	Do	Do	7,000 „
16th	Do	Do	Do	7,000 „
17th	Do	Do	Do	6,500 „
19th	Do	Do	Do	7,000 „
20th	Do	Do	Do	7,000 „
21st } 22nd }	Do	Do	Do	7,500 „

The snow during the fall of the 14th came to about 4 miles from Parachinar. Snow fell all along the Sufed Koh, on the Paiwar Kotal, on the Margal hills over Khost and on a hill over the Tochi and the general fall was much heavier than last year.

II.—KASHMIR AND PUNJAB HIMALAYAS.

(1) *Kashmir* :—The following snowfall report has been received from Mr. W. R. Howson, the telegraph-master at Minimarg "there have been heavy falls of snow at Minimarg and on the surrounding mountains. The first and heaviest fall occurred on the night of the 20th and morning of the 21st. From reliable information at least two to two and a half feet fell on the Burzil Pass up to the afternoon of the 21st making a total of about 3 feet on the Burzil on the 21st where the snow had melted to about 1 foot since the 5th October. After the 21st there were three more falls of snow at Minimarg, *viz*, on the 21st night, 22nd night and 24th night and the Burzil must have received these falls also. The snowfall on the night of the 20th and morning of the 21st must have been general as it snowed heavily in Gurais and the dâk being 12 hours late, it is probable that snow also fell on the Tragbal Pass. At Astor there had been no snow."

(2) *Killa Drosh* :—Heavy snow fell on the mountains and hills on the 17th November and the Lohari Pass was closed.

There was a heavy snowfall on the tops of the mountains and hills on the 22nd and 23rd.

(3) *Chamba* :—There was no snow in the Chamba division during November.

(4) *Simla*:—On the 21st and 25th there were snow storms descending to about 10,000 feet giving about one inch of snow and extending from Haltee in the west to the Runang Pass in the east.

The depth of snow on the following passes was as follows :—

Rupin Pass	16,000 feet	. .	5 to 6 feet
Borenda „	16,000 „	. .	6 „
Shatul „	15,000 „	. .	6 „
Bulder „	16,000 „	. .	8 „
Runang „	14,000 „	. .	4 „

The first four passes were all closed by the end of the month.

III.—NORTH-WESTERN PROVINCES, HIMALAYAS.

(1) *North-Western Provinces* :—There was no snowfall in the Garhwal or Almora districts during November.

Summary of special Storm Reports.

Quiet settled weather ordinarily prevails during November and the weather of November 1900 was no exception. The following were the only special storm reports received.

6th.—A slight local storm prevailed at Salem in the afternoon, the wind blowing a gale from east-north-east and light rain falling.

8th.—Another slight storm occurred at Salem at about 4 P.M. Light rain fell.

17th—Slight storm at Salem about 7 P.M. The storm was followed by light rain.

21st.—Thunder, lightning and drizzling rain were experienced at Salem in the evening.

21st.—Slight dust storm at Srinagar between 11 A.M. and 4 P.M.

Earthquake Reports.—

23rd.—The meteorological observer, Deesa, reports that a shock of earthquake occurred at 25 P.M. and lasted 20 seconds.

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

Arabian Sea.—Except in the vicinity of the Indian and Mekran coasts, where winds were more or less unsteady, ordinary north-east monsoon winds obtained over the whole of the Arabian Sea during the month. The air movement varied in force between daily averages of 1·9 and 3·9 during the month, the normal force being 2·9.

Weather was throughout the month fine with clear or lightly clouded skies except in the extreme south-east where it was showery with occasional squalls more specially on the 1st, 2nd, 6th, 7th, 8th, 11th, 17th, 19th, 21st and 22nd. Isolated squalls were also experienced in the centre on one or two occasions.

The weather in the Arabian Sea was hence of the ordinary character and the mean air movement of the month was almost indentical with the normal.

Bay of Bengal.—The most important feature of the meteorology of the first three days of the month was a small storm which, having originated in the south-west of the Bay, marched westwards to the Coromandel coast. It was apparently a concentrated disturbance and its effect on the winds and weather was hence not extensive. The S. S. *Baron Fairlie* experienced winds of hurricane force and torrents of rain at 4 A.M. on the 2nd in about Lat. 15¾°N and Long. 85½°E. During the next eight or nine days north-east monsoon winds obtained generally over the Bay to the north of Lat. 9° N. Further south, winds were somewhat unsteady though chiefly from some westerly quarter. Weather was fine during the period over the area of north-east winds but was more or less disturbed with occasional squalls and showers in the south and near the Ceylon and South Coromandel Coasts. The north-east winds extended southwards over the south of the Bay on the 12th and 13th and were established over the whole of the Bay by the 14th. No important change took place during the rest of the month, north-east winds prevailing steadily throughout the Bay. Weather was generally fine from the 12th to the end of the month except in the neighbourhood of Ceylon where occasional showers and squalls continued to occur.

The mean daily force of the air movement over the Bay ranged between 1·8 and 3·6 and was more or less above the normal on only six occasions, *viz*, the 2nd, 4th, 16th, 18th, 24th and 25th. The air movement for the whole month was hence 0·3 below the normal, *viz*, 3·2.

From the preceding account of the weather in the Indian Seas it will be seen that strongly pronounced north-east monsoon conditions prevailed generally over both the Bay of Bengal and Arabian Sea and that weather was much finer than usual in the former area due to an abnormally early withdrawal of the retreating south-west monsoon winds from the south and centre in the second week of the month.

Equatorial Belt.—There are no data available for the eastern half of this region. In the western half of the belt the southern trades prevailed as far north as Lat. 3° or 4° S. during the first week of the month and Lat. 7° or 8° S. during the last week. Weather was more or less showery and squally on most days.

Temperature of the Air.

The variations of the temperature conditions of the month from the normal were large and strongly marked and were largely due to the complete absence of rain over a large part of the country and to the partial failure of the rains over the Bay area. The mean temperature of the month was more or less in excess over the greater part of India but was in defect over Ganjam, Orissa, Lower Bengal, Burma and the Bay area.

The mean maximum or day temperature of the month was almost everywhere in excess but exhibited a slight local deficiency in Central Burma and at the stations of Waltair, Nellore, Cuddalore, Tinnevelly and Umballa, and a moderate local deficiency at Trincomalee. Over the whole of the remainder of India the mean day temperature was in excess. The excess was most pronounced over the area represented by the stations of Ahmedabad, Indore, Khandwa, Malegaon, Surat and Bhavnagar Para but it was also considerable over parts of the Bombay and the Madras Deccan and Mysore and locally at Jacobabad and Lahore. The following gives comparative data for the stations at which the excess was more than 4° :—

STATION.	MEAN MAXIMUM TEMPERATURE.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	°	°	°
Khandwa	91·7	85·3	+6·4
Surat	95·5	89·9	+5·6
Jacobabad	91·3	85·9	+5·4
Malegaon	90·9	85·7	+5·2
Poona	90·1	85·2	+4·9
Ahmedabad	95·5	90·9	+4·6
Bijapur	89·2	84·8	+4·4
Cuddapah	90·7	86·6	+4·1
Chitaldroog	85·7	81·6	+4·1
Indore	85·9	81·8	+4·1
Lahore	85·4	81·3	+4·1

Over the east of the Peninsula and the east of the North-Western Provinces and of the Central Provinces the excess of the day temperature was small or altogether disappeared but in North-East India the excess again increased and over Lower Bengal, Cachar and Upper Burma it varied between +2°·1 and +4°·2. The following gives comparative data for this second area of excess :—

Station.	Mean minimum temperature.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	°	°	°
Silchar	88·9	84·7	+4·2 ?
Mandalay	89·8	86·6	+3·2
Calcutta	84·2	81·2	+3·0
Burdwan	85·6	82·7	+2·9
Dhubri	82·8	80·0	+2·8
Kindat	84·1	81·5	+2·6
Barisal	84·6	82·2	+2·4
Bogra	84·4	82·1	+2·3
Balasore	84·9	82·7	+2·2
False Point	84·0	81·9	+2·1
Gaya	84·5	82·4	+2·1 ?

The heat was almost continuously excessive over a large part of North-Western, Central and Western India throughout the month while over the east of the Peninsula and North-East India the temperature conditions were unsteady. The hottest periods were, however, from the 6th to the 8th, the 16th, the 19th to the 23rd and the 25th to the 26th. On the 16th and on the 25th and 26th the excess of the temperature was generally more marked in the night than in the day temperatures but the day temperatures were also much above the normal. The following gives the highest temperatures recorded during the month in each of the divisions of India with the name of the station recording it together with the highest temperature previously recorded in November at that station :—

Province or Division.	Station.	Highest maximum temperature recorded in Nov. 1900.	Date on which recorded.	Highest maximum temperature recorded in Nov. previous to 1900.	Year in which recorded.
		°		°	
Burma	Mandalay	93·5	4th	95·6	1896
Assam	Silchar	94·5	2nd and 9th	92·8	1889
Bengal	Comilla	90·4	"	91·3	1886
Orissa	Puri	91·7	9th	90·7	1896
Bihar	Buxar	88·0	1s	95·5	1896
Chota Nagpur	Daltonganj	87·1	"	90·3	1895
North-Western Provinces.	Jhansi	91·2	1st and 7th	98·2	1872
Punjab	Mooltan	96·8	7th	103·9	1878
Sind	Hyderabad (Sind).	100·1	5th and 6th	100·7	1895
Rajputana	Deesa	99·6	1st	102·9	1895
Gujarat	Ahmedabad	100·3	3rd	98	1896
Central India	Neemuch	91·0	1st and 3rd	94·3	1895
Central Provinces.	Khandwa	95·7	1st	97·7	1896
Berar	Akola	92·4	1st and 3rd	97·5	1896
West Coast	Ratnagiri	97·4	8th and 21st	98·8	1896
Bombay Deccan	Malegaon	94·9	1st	96·4	1896
Mysore	Chitaldroog	89·6	7th	90·6	1896
Madras Coast	Trichinopoly	93·5	6th	97·1	1876
Madras Deccan	Cuddapah	94·7	8th	97·1	1896
South India	Tinnevelly	94·2	4th and 6th	98·3	1892

At all the hill stations the day temperature, on the mean of the month, exceeded the normal.

The mean night or minimum temperature of the month was in slight to moderate defect of the normal over Burma, Cachar, the greater part of Bengal, Orissa, Ganjam and at a few places across the head of the Peninsula and in South Madras. The deficiency was small except in Orissa and parts of Burma where at the following stations it amounted to 2° or more :—

Province.	Station.	Mean minimum temperature.		
		Actual, November 1900.	Normal, November.	Variation of actual from normal, Nov. 1900.
		°	°	°
Orissa	False Point	63·5	65·7	−2·2
Burma	Akyab	67·7	71·9	−4·2
	Toungoo	66·9	70·3	−3·4
	Thayetmyo	65·7	68·0	−2·3
	Rangoon	70·8	72·9	−2·1

Over the whole of the remainder of India and in Tenasserim the night temperature, on the mean of the month, was in excess of the normal. The excess was greatest and considerable to large over North-West India and exceeded 4° at the following large number of stations:—

STATION.	MEAN MINIMUM TEMPERATURE.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, Nov. 1900.
	°	°	°
Rawalpindi	51·1	42·1	+9·0 ?
Jacobabad	57·1	49·4	+7·7
Lahore	53·8	46·2	+7·6
Sirsa	55·6	48·0	+7·6
Dera Ismal Khan	53·8	46·9	+6·9
Sialkot	55·4	48·5	+6·9
Jhansi	63·5	56·7	+6·8
Ajmer	55·9	49·4	+6·5
Peshawar	50·2	44·1	+6·1
Jaipur	58·6	53·0	+5·6
Ludhiana	55·3	50·0	+5·3
Mooltan	56·7	51·6	+5·1
Khushab	54·7	49·6	+5·1 ?
Agra	60·0	54·9	+5·1
Saugor	61·1	56·0	+5·1
Rajkot	63·3	58·5	+4·8
Deesa	61·5	56·8	+4·7
Delhi	60·0	55·4	+4·6
Bikaner	61·5	57·2	+4·3
Meerut	53·7	49·6	+4·1
Surat	66·4	62·3	+4·1
Sambhar	55·9	51·9	+4·0 ?

At all the northern hill stations the mean minimum temperature was almost as much in excess as on the neighbouring plains, but at Pachmarhi and Wellington the mean night temperature was slightly lower than usual.

The lowest night temperatures recorded during the month in Northern India and at the hill stations were generally registered between the 28th and the 30th. The following were the more noteworthy minima recorded on the plains of Northern India and at the hill stations and the lowest minima previously recorded in November:—

STATION.	Lowest minimum temperature recorded in November 1900.	Date on which recorded.	Lowest minimum temperature recorded in November previous to 1900.	Year in which recorded.
	°		°	
Motihari	48·9	29th & 30th	44·9	1892
Dinajpur	48·4	29th	48·1	1883
Daltonganj	48·0	26th, 29th & 30th	45·0	1899
Rangpur	40·9	29th	48·6	1883
Lucknow	45·2	30th	36·4	1879
Meerut	44·7	29th	36·1	1879
Roorkee	42·0	29th	30·9	1879
Lahore	44·0	28th & 29th	32·5	1879
Umballa	44·0	29th	39·0	1893
Montgomery	43·5	29th	38·3	1893
Sialkot	43·1	29th	32·1	1879
Rawalpindi	43·0	29th	25·9	1879
Patiala	43·0	30th	44·5	1898
Khushab	42·9	29th	35·1	1893
Dera Ismail Khan	42·6	29th	28·0	1879
Peshawar	38·9	30th	24·7	1879
Jacobabad	49·0	27th & 29th	32·7	1879
Ajmer	49·8	29th	31·1	1879
Jaipur	49·0	29th	42·2	1888
Sambhar	48·4	29th	40·9	1888 & 1892
Pishin	28·0	27th & 28th	9·9	1893
Srinagar	27·1	29th	20·1	1893
Skardu	25·1	29th	16·7	1897
Leh	14·5	29th	6·7	1888
Dras	10·1	29th	−9·9	1899

The mean temperature of the month was below the normal around the north and east of the Bay, but the variations were small and irregular generally and the only important departure from the normal was −2°·0 at Toungoo and perhaps −1°·6 at Akyab. Elsewhere the mean temperature was everywhere in excess of the normal. The excess was greatest over North-West India where it amounted to over 4°, but an arm, in which the variations were more than 2°·0, extended southward from this area along the west of the Peninsula as far as Cape Comorin.

The following gives comparative data for the stations at which the variation was more than 4°.

Station.	Mean daily temperature.		
	Actual November 1900.	Normal November.	Variation of actual from normal, November 1900.
	°	°	°
Jacobabad	74·2	67·6	+6·6
Rawalpindi	65·4	59·4	+6·0 ?
Lahore	69·6	63·7	+5·9
Jhansi	75·4	70·4	+5·0
Sirsa	71·0	66·1	+4·9
Surat	81·1	76·1	+4·9
Ajmer	71·0	66·2	+4·8
Jaipur	73·4	68 8	+4·6
Sialkot	69·2	64·6	+4·6
Dera Ismail Khan	69·1	64·6	+4·5
Rajkot	78·4	74·1	+4·3
Deesa	77·8	73·6	+4·2
Agra	73·6	69·5	+4·1
Bikaner	74·6	70·5	+4·1
Mooltan	71·9	67·8	+4·1

Over the east of the Peninsula, North-East Inida and Upper Burma the variations were small, but in Tenasserim they increased and at Mergui the mean temperature was 2°·0 above the normal.

The following is a brief summary of the more important temperature features of the month :—

(1) Both the day and night temperatures and consequently also the mean temperature were in moderate to large excess over North-West India.

(2) The day temperature was in considerable and the night temperature in slight excess over the greater part of the Peninsula so that the mean temperature was in slight to moderate excess.

(3) The temperature was unsteady over the east of the Peninsula and the temperature variations in this region were slight and irregular.

(4) The day temperature was excessive, the night temperature deficient and the mean temperature about normal over North-East India.

(5) In Burma the day temperature was normal or in slight defect and the night temperature was in slight to moderate defect so that the mean temperature was in slight defect.

(6) The heat was greater than usual at the hill stations :—

The following table gives comparative data for 56 meteorological divisions into which India is divided.

Province.	Division.	Actual Temperature.					Variation from normal of month of		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	88·5	72·6	80·5	15·9	24·4	+0·5	−0·1	+0·6
	Lower Burma (Deltaic)	86·3	73·3	79·8	13·0	21·7	−0·3	−1·1	+0·8
	Central do.	87·6	66·3	77·0	21·3	31·3	+0·3	−2·9	+3·2
	Upper do.	86·8	65·4	76·1	21·4	31·1	+1·2	+0·2	+1·0
	Arakan	86·5	67·7	77·1	18·8	29·4	+1·0	−4·2	+5·2
Bengal and Assam	Eastern Bengal	84·9	63·5	74·2	21·4	33·7	+1·9	−0·9	+2·8
	Assam (Surma)	88·9	62·0	75·5	26·9	37·1	+4·2?	−1·8	+6·0 ?
	Do. (Brahmaputra)	80·9	61·6	71·3	19·3	28·2	+1·7	−0·1	+1·8
	Deltaic Bengal	84·3	63·2	73·7	21·1	32·0	+2·4	−0·8	+3·2
	Central do.	83·9	62·2	73·1	21·7	32·6	+2·2	−0·2	+2·4
	North do.	83·2	59·2	71·3	24·0	32·9	+0·9	−0·5	+1·4
	Bengal Hills	58·3	35·0	46·6	23·3	34·3	+1·6	+1·4	+0·2
	Orissa	85·2	64·9	75·1	20·2	29·0	+1·8	−1·0	+2·8
	Chota Nagpur	82·2	58·7	70·5	23·5	31·2	+1·5	+0·7	+0·8
	South Bihar	83·8	60·1	72·0	23·8	33·5	+1·2	+1·0	+0·2
	North do.	82·7	59·5	71·2	23·2	34·9	+0·9	+0·7	+0·2

Province.	Division.	Actual temperature: Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Variation from normal of month of: Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
North-Western Provinces and Oudh.	North-Western Provinces (East)	84·1	57·0	70·6	27·1	37·5	+2·1	+2·1	0
	Oudh (South)	85·8	55·4	70·6	30·4	45·1	+2·9	+3·6	−0·7
	Do. (North)	84·6	56·7	70·7	27·9	41·6	+2·0	0	+2·0
	North-Western Provinces (Central)	86·1	57·8	72·0	28·3	39·2	+3·2	+6·8	−3·6
	Do. do. (West)	85·3	56·9	71·1	28·4	40·2	+2·8	+4·6	−1·8
	Do. do. (East Submontane)	82·6	59·6	71·1	23·0	34·3	+1·0	+2·1	−1·1
	Do. do. (West do.)	80·6	53·4	67·0	27·2	39·2	+2·1	+2·4	−0·3
	Do. do (Hills)	62·4	47·0	54·7	15·3	25·3	+2·2	+2·7	−0·5
Punjab	Punjab (South-East)	83·5	60·0	71·8	23·5	39·1	+0·5	+4·6	−4·1
	Do. (South)	84·2	54·7	69·5	29·6	45·0	+2·1	+7·6	−5·5
	Do. (Central)	85·4	53·8	69·6	31·6	48·1	+4·1	+7·6	−3·5
	Do. (Submontane)	81·5	54·5	68·0	27·1	43·0	+0·6	+4·8	−4·2
	Do. (Hills)	58·9	38·5	48·7	20·5	38·5	+1·5	+3·4	−1·9
	Do. (North)	79·2	50·7	65·0	28·6	46·2	+1·7	+6·1	−4·4
	Do. (West)	85·6	55·0	70·3	30·6	50·3	+2·5	+6·0	−3·5
Bombay and Malabar Coast Districts (Madras).	Malabar	88·2	75·3	81·7	12·9	19·9	+2·3	+1·8	+0·5
	Madras (South Central)	87·3	69·3	78·3	18·0	28·5	+0·9	+0·7	+0·2
	Coorg	77·4	62·2	69·8	15·2	22·3	+2·4	+1·9	+0·5
	Mysore	82·7	62·9	72·8	19·8	29·7	+2·6	+0·4	+2·2
	Konkan	90·1	72·6	81·3	17·5	25·6	+2·4	+1·0	+1·4
	Bombay Deccan	88·5	62·1	75·4	26·4	30·2	+3·9	+1·1	+2·8
	Hyderabad (North)	85·1	53·9	69·5	31·2	39·4	...	...	...
	Khandesh	90·9	59·2	75·1	31·7	41·4	+5·2	+2·4	+2·8
Central Provinces and Berar.	Berar	88·9	59·8	74·3	29·1	37·4	+3·4	−0·2	+3·6
	Central Provinces (West)	88·1	58·2	73·1	29·9	37·1	+3·9	+0·8	+3·1
	Do. (Central)	84·2	57·2	70·7	27·0	34·2	+2·5	+1·6	+0·9
	Do. (East)	84·2	60·9	72·6	23·3	33·3	+1·5	−0·4	+1·9
Bombay (North)	Gujarat	95·5	67·4	81·5	28·2	38·0	+5·1	+3·4	+1·7
	Kathiawar and Cutch	92·0	65·1	78·6	27·0	38·0	+2·7	+3·0	−0·3
	Sind	91·1	61·3	76·2	29·8	45·4	+3·8	+4·7	−0·9
	Baluchistan Hills	68·1	38·4	53·3	29·6	53·2	+0·4	+6·1	−5·7
Rajputana and Central India.	Central India (East)	84·2	56·5	70·4	27·7	35·9	+3·3	+3·3	0
	Rajputana (East), Central India (West)	88·1	58·2	73·2	29·9	42·8	+3·4	+5·6	−2·2
	Do. (West)	90·4	60·0	75·2	30·4	43·9	+3·8	+4·3	−0·5
Madras	East Coast (North)	83·8	69·2	76·5	14·6	23·6	+0·2	−0·7	+0·9
	Hyderabad (South)	86·9	64·1	75·5	22·8	31·4	+3·0	+0·7	+2·3
	Madras (Central)	90·1	67·4	78·8	22·7	33·4	+3·6	+1·0	+2·6
	East Coast (Central)	86·2	71·7	79·0	14·5	22·8	+0·7	+0·1	+0·6
	Do. (South)	85·7	71·9	78·8	13·8	24·2	+0·6	+0·6	0
	Madras (South)	86·9	73·4	80·2	13·5	22·5	+0·1	+0·5	−0·4

The following is a statement of the larger and more important changes of the temperature conditions during the month.

The weather appears to have been more than usually disturbed in Persia and this disturbed weather advanced as far east as Baluchistan where the rainfall of Quetta and Chaman was much in excess of the normal, but it was only on the 1st, the 10th, and 11th and the 29th that low pressure areas appeared over North-West India and even then they were feeble and only slightly affected the weather. At other times the barometer was high over Northern and Central India while it was low along the West coast of the Peninsula and over the south of the Bay. The amount of the pressure difference between Northern India and the east of the Arabian Sea and the south of the Bay varied from day to day and these changes were accompanied with changes in the force and directions of the winter monsoon and hence also in the extent and heaviness of the rainfall around the Bay. Consequently while over North-Western and Central India the mean temperature was generally steady and high, in Madras and North-East India it was unsteady and normal or slightly below the normal.

At the commencement of the month there was practically no rain over India, but there had been a slight fall over Lower Burma and the mean temperature was below the normal over the Bay area and the east and south of the Peninsula. On the other hand, the mean temperature was above the normal over North-West India more particularly in North Bombay and the Western desert. The

following gives variation data for the 24 hours preceding 8 A.M of the 1st:—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st November.	Mean minimum temperature, 1st November.	Mean daily temperature, 1st November.
	°	°	°
Burma	0	+1·6	+ 0·8
Assam	+ 3·3	−3·1	+ 0·1
Bengal	+ 0·8	−3·5	− 1·4
Orissa	+ 1·8	−6·5	− 2·4
Bihar	+ 0·8	−1·8	− 0·5
Chota Nagpur	+ 2·0	−3·6	− 0·8
North-Western Provinces and Oudh	+ 1·0	+0·1	+ 0·6
Punjab	+ 0·8	+4·6	+ 2·7
Sind	+ 2·6	+4·2	+ 3·4
Rajputana	+ 4·8	+3·5	+ 4·2
Gujarat	+ 3·6	+2·2	+ 2·9
Central India	+ 2·6	+1·9	+ 2·3
Central Provinces	+ 3·3	−2·6	+ 0·4
Berar	+ 0·5	−2·0	− 0·8
West Coast	+ 3·5	−1·0	+ 1·3
Bombay Deccan	+ 5·1	−1·4	+ 1·9
Mysore	+ 0·2	−6·0	− 2·9
Madras Coast	+ 2·0	−4·0	− 1·0
Madras Deccan	+ 4·4	−7·6	− 1·6
South India	+ 0·7	−3·4	− 1·4

These conditions continued during the succeeding three days without important alteration except in the north-east where the low temperatures prevailing on the 1st disappeared and were replaced by an area of excessive heat. The following gives comparative data for the different divisions of Assam, Bengal and Orissa from the 1st to the 4th in illustration:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	1st November.	2nd November.	3rd November.	4th November.
	°	°	°	°
Assam	+0·1	+0·6	+1·1	+0·2
Bengal	−1·4	+0·9	+2·9	+2·3
Orissa	−2·4	−0·8	+0·4	+3·7
Bihar	−0·5	+0·1	+0·9	+0·8
Chota Nagpur	−0·8	−0·5.	+0·7	+2·3

On the 4th a change commenced. The mean temperature fell moderately briskly over parts of Khandesh and the west of the Central Provinces and the mean temperature fell to below the normal at Hoshangabad (—2°·1) and Jubbulpore (—2°·0). This area of reduced temperature extended eastward through the Central Provinces and Central India as far as Lower Bengal on the 5th and spread over a large part of North-East India and the head of the Peninsula on the 6th. At this time it was very slight, as is shown by the following table which gives comparative data for the stations within this area where the deficiency of temperature equalled or exceeded 1°:—

Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 6th November.
	°
Akola	−2·1
Raipur	−1·9
Hazaribagh	−1·8
Jessore	−1·8
Chanda	−1·6
Berhampore	−1·4
Saugor Island	−1·4
Gaya	−1·2
Chaibassa	−1·0
Jubbulpore	−1·0
Seoni	−1·0

On the following day the area of reduced temperature moved southward and intensified. It lay over the head of the Peninsula from the 8th to the 12th when, under the influence of a brisk rise of temperature, it finally disappeared. The following gives comparative data from the 5th to the 12th for Bengal, Orissa, Bihar, Chota Nagpur, Central India, the Central Provinces, Berar, the Bombay Deccan, and the Madras coast which were the divisions affected by this area of low temperature:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	5th Nov.	6th Nov.	7th Nov.	8th Nov.	9th Nov.	10th Nov.	11th Nov.	12th Nov.
	°	°	°	°	°	°	°	°
Orissa	+2·8	0	−2·6	−2·4	−0·4	+1·2	+0·2	−0·6
Chota Nagpur	+1·5	−1·1	−1·3	−1·7	0	−0·2	−0·1	+0·4
Central India	+0·8	+1·0	+1·6	+1·9	+1·1	+1·3	+1·6	+2·1
Central Provinces	+1·0	−0·3	−0·9	−0·1	−0·6	−1·0	−0·4	−0·2
Berar	+0·6	−0·2	−0·9	+0·3	−0·2	−2·3	−1·5	−1·9
Bombay Deccan	+2·4	+1·9	+1·3	−0·3	−1·6	−0·9	−1·5	−1·7
Madras Coast	+0·7	+1·3	+0·3	−0·1	−0·6	−1·7	−0·9	−0·7

During the existence of this area of reduced temperature over the central parts of the country the heat remained steadily excessive over North-West, Northern and North-Eastern India and the south of the Peninsula and on most days was excessive in Burma. The following gives comparative data for the above regions from the 5th to the 12th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	5th Nov.	6th Nov.	7th Nov.	8th Nov.	9th Nov.	10th Nov.	11th Nov.	12th Nov.
	°	°	°	°	°	°	°	°
Gujarat	+3·6	+3·1	+2·6	+1·6	+1·5	+1·3	+0·3	+0·5
Sind	+6·7	+7·1	+5·7	+3·6	+3·6	+3·5	+3·0	+2·9
Punjab	+4·2	+4·5	+6·1	+5·1	+4·4	+4·7	+4·7	+5·1
Rajputana	+4·6	+5·0	+5·1	+4·8	+4·1	+3·4	+3·6	+4·2
N.-W. P. and Oudh	+1·2	+1·5	+2·2	+2·2	+2·1	+2·7	+2·9	+2·9
Bihar	0	−0·2	+0·2	+0·5	+0·4	+0·5	+0·7	+1·4
Bengal	+0·7	−0·3	+0·5	+1·7	+2·5	+0·9	−0·3	+0·3
Assam	−0·3	0	+1·2	+2·1	+2·7	+2·2	+0·8	+0·4
Mysore	+2·4	+2·4	+3·3	+3·2	+3·3	+1·0	−0·5	−1·0
Madras Deccan	+0·9	+3·2	+2·8	−0·1	−1·0	−0·4	−1·0	+0·4
South India	+3·2	+3·4	−0·1	+1·4	+2·9	+2·2	+1·3	−0·7
Burma	−0·5	+0·1	+1·6	+1·6	+2·1	+2·1	+0·5	+0·7

On the 13th the area of deficient temperature having disappeared the mean temperature became excessive in nearly all parts of the country. The excess was considerable both over North-West India and over the Deccan, but elsewhere the variations were generally small. The following gives comparative data for the whole country for the 13th and 14th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	13th November.	14th November.
	°	°
Burma	+1·0	+0·8
Assam	+0·9	+1·0
Bengal	+0·8	+0·5
Orissa	−0·3	+0·5
Bihar	+1·3	+0·9
Chota Nagpur	+1·0	+1·5
North-Western Provinces and Oudh	+2·2	+2·2
Punjab	+5·0	+5·0
Sind	+2·9	+4·8
Rajputana	+3·4	+3·4
Gujarat	+0·8	+2·0
Central India	+1·8	+0·8
Central Provinces	+1·1	+1·5
Berar	+1·4	+2·2
West Coast	+0·7	+0·2
Bombay Deccan	+1·0	+4·2
Mysore	−0·6	+2·6
Madras Coast	+1·1	+1·0
Madras Deccan	+2·8	+3·9
South India	+1·7	+3·2

On the 15th temperature further increased in the north-west and on the 16th the general excess was considerable to large except in Burma and North-East India. The following gives data :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	15th November.	16th November.
	°	°
Burma	+0·5	+0·5
Assam	+0·3	+0·9
Bengal	0	+0·4
Orissa	+1·7	+1·5
Bihar	+1·6	+2·1
Chota Nagpur	+1·9	+0·8
North-Western Provinces and Oudh	+2·9	+3·2
Punjab	+5·8	+5·4
Sind	+5·2	+2·1
Rajputana	+4·2	+5·5
Gujarat	+2·8	+3·6
Central India	+1·9	+2·5
Central Provinces	+1·7	+1·3
Berar	+1·7	+2·2
West Coast	+1·7	+1·9
Bombay Deccan	+3·6	+4·7
Mysore	+1·6	+2·8
Madras Coast	+0·1	+1·4
Madras Deccan	+3·6	+3·8
South India	+2·6	+3·7

The excess was more marked in the night than in the day temperature. This is shown in the following table which gives comparative data of maximum and minimum temperature for those stations at which the night temperature was more than 10° above the normal :—

Date.	Station.	Variation from normal of	
		Maximum temperature of date.	Minimum temperature of date.
		°	°
15th November	Rawalpindi	+4·9	+13·9
	Sialkot	+3·4	+13·6
	Jacobabad	+5·0	+13·1
	Peshawar	−3·5	+13·0
	Lahore	+3·9	+12·9
	Montgomery	+2·9	+10·7
16th November	Dera Ismail Khan	+2·9	+14·2
	Peshawar	0	+13·3
	Lahore	+1·2	+12·5
	Sialkot	+1·0	+12·1
	Deesa	+2·1	+11·9
	Ajmer	+1·7	+11·1
	Sirsa	+1·4	+10·8
	Rawalpindi	+3·3	+10·8

During the 16th a small disturbance advanced quickly through Upper Sind into Rajputana occasioning a few light thunder and dust-storms which were followed by a brisk to very rapid fall of temperature over parts of North-West India. The following gives the mean temperature of the 15th, 16th, 17th and 18th of certain selected stations in North-West India where the change was most marked :—

Station.	Mean temperature of 24 hours preceding 8 A.M. of			
	15th November.	16th November.	17th November.	18th November.
	°	°	°	°
Jacobabad	77·3	70·8	70·5	70·5
Hyderabad (Sind)	76·8	76·6	73·3	71·8
Deesa	78·1	80·6	73·6	78·1
Bhuj	79·1	78·9	74·9	75·6
Ajmer	71·1	72·6	62·8	67·8
Jodhpur	76·4	77·7	67·2	72·4
Sambhar	71·4	71·2	64·6	67·7
Bikaner	75·2	76·6	67·6	68·9
Mooltan	72·9	75·1	66·1	68·1
Motgomery	75·3	73·0	64·5	67·0
Dera Ismail Khan	69·7	73·2	66·2	68·0
Peshawar	65·6	67·3	62·1	61·1
Sialkot	73·4	71·2	65·1	66·6
Sirsa	72·2	72·2	67·2	68·7

This fall of temperature reduced the mean temperature to below the normal in Rajputana but only reduced the excess in other parts of North-West India. The following gives comparative data for the 16th and 17th for the different divisions of North-West India :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	16th November.	17th November.
	°	°
Gujarat	+3·6	+2·0
Sind	+2·1	+1·1
Rajputana	+5·5	−1·5
Punjab	+5·4	+1·5
North-West Provinces and Oudh	+3·2	+2·4

This fall of temperature in North-West India had the effect of establishing the area of greatest excess of temperature over Khandesh and the Bombay Deccan, but as the thermometer rose again in the north-west the area of greatest excess gradually extended northward and eastward till by the 24th the greatest excess was reported from the west of the North-Western Provinces. The following gives comparative data for all the divisions of Western, Central and Northern India from the 17th to the

24th and shows the extension of the high temperature area :—

PROVINCE OR DIVISION.	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF							
	17th Nov.	18th Nov.	19th Nov.	20th Nov.	21st Nov.	22nd Nov.	23rd Nov.	24th Nov.
	°	°	°	°	°	°	°	°
Gujarat . . .	+2·0	+2·4	+6·2	+5·5	+3·5	+4·9	+5·8	+5·1
Sind	+1·1	+1·1	+2·9	+3·9	+3·6	+4·8	+5·0	+5·8
Punjab . . .	+1·5	+2·0	+3·5	+3·6	+5·0	+4·6	+4·1	+3·8
Rajputana . . .	—1·5	+2·0	+5·4	+6·9	+6·4	+7·3	+7·0	+2·5
North-Western Provinces and Oudh.	+2·4	+1·8	+1·9	+2·2	+3·5	+4·8	+6·0	+4·2
Central India . .	+2·7	+2·9	+4·6	+5·4	+5·6	+7·1	+6·8	+6·2
Central Provinces .	+2·5	+3·1	+3·1	+2·5	+3·2	+3·8	+5·2	+5·0
Berar. . . .	+1·9	+7·8	+3·4	+4·7	+4·4	+3·4	+4·5	+4·9
Orissa . . .	+1·2	+1·1	+1·5	+2·2	+1·2	—0·3	—0·9	+0·1
Bihar . . .	+3·1	+2·1	+2·1	+1·1	+0·7	—0·9	+2·2	+3·3
Chota Nagpur . .	+1·0	+0·9	+1·5	+0·1	+0·9	—0·1	+2·1	+3·1

The above movement would perhaps be better seen in the following table which gives data for the two stations at which the temperature excess was greatest from the 17th to the 24th :—

DATE.	STATION.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date.
17th November . . .	Bijapur	+7·2
	Malegaon	+6·3
18th " . . .	Bijapur	+7·6
	Malegaon	+7·2
19th " . . .	Indore	+8·4
	Deesa	+8·2
20th " . . .	Malegaon	+9·5
	Jaipur.	+9·4
21st " . . .	Ajmer.	+9·2
	Indore	+8·6
22nd " . . .	Sambhar	+9·8
	Jhansi	+9·5
23rd " . . .	Jhansi	+10·7
	Khandwa	+10·0
24th " . . .	Jhansi	+8·4
	Sutna	+7·8

On the 25th there was a sudden rise of temperature in Sind and Gujarat, and very high temperatures were established over that region. The following gives comparative data from the 24th to the 26th for all the stations included in that area :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
24TH NOVEMBER.	Kurrachee. . .	+ 3·3	+ 6·1	+ 4·7
	Hyderabad . .	+ 3·8	+ 7·5	+ 5·7
	Jacobabad . .	+ 4·4	+ 9·4	+ 6·9
	Ahmedabad . .	+ 7·7	+ 4·2	+ 6·0
	Rajkot . . .	+ 2·9	+ 8·0	+ 5·5
	Veraval . . .	+ 3·7	+ 7·4	+ 5·6
	Bhavnagar Para .	+ 1·5	+ 0·1?	+ 0·8?
25TH " .	Kurrachee . .	+ 3·2	+ 4·4	+ 3·8
	Hyderabad . .	+18·0?	+ 4·3	+11·2?
	Jacobabad . .	+ 5·8	+13·1	+ 9·5
	Ahmedabad . .	+ 4·6	+ 7·9	+ 6·3
	Rajkot . . .	+ 3·4	+15·0	+ 9·2
	Veraval . . .	+ 7·9	+ 8·3	+ 8·1
	Bhavnagar Para .	+ 4·2	+ 1·6	+ 2·9
26TH " .	Kurrachee . .	+ 2·1	+ 6·1	+ 4·1
	Hyderabad . .	+ 7·1	+ 4·8	+ 6·0
	Jacobabad . .	+ 8·7	+15·7	+12·2
	Ahmedabad . .	+ 4·8	+ 6·9	+ 5·9
	Rajkot . . .	+ 4·5	+17·1?	+10·8?
	Veraval . . .	+ 6·7	+ 9·0	+ 7·9
	Bhavnagar Para .	+ 4·0	+ 0·1?	+ 2·1?

During these ten days, 17th to 26th, the excess of heat was much more marked in the case of the night than in the case of the day temperature. This is shown in the following table which gives comparative data of day and night temperatures for those stations where the night temperature was more than 10° in excess of the average :—

DATE.	STATION.	VARIATION FROM NORMAL OF	
		Maximum temperature of date.	Minimum temperature of date.
		°	°
19TH NOVEMBER.	Indore	+3·1	+13·6
	Deesa	+4·9	+11·4
	Neemuch . . .	+1·7	+10·8
	Ajmer	+0·2	+10·2

Date.	Station.	Variation from normal of Maximum temperature of date.	Variation from normal of Minimum temperature of date.
		°	°
20th November.	Jaipur	+4·1	+14·6
	Indore	+4·3	+14·3
	Malegaon	+5·5	+13·5
	Ajmer	+3·2	+12·3
	Bijapur	+5·2	+10·6
21st "	Khushab	+1·2	+13·9
	Ajmer	+5·0	+13·4
	Jaipur	+1·5	+13·4
	Indore	+4·2	+13·0
	Sirsa	+2·9	+11·9
22nd "	Jaipur	+4·7	+14·0
	Lahore	+4·8	+13·3
	Sirsa	+4·4	+13·2
	Ajmer	+3·7	+12·6
	Sambhar	+7·8	+11·8
	Indore	+6·5	+11·4
	Jhansi	+7·8	+11·2
	Agra	+7·0	+10·8
	Khandwa	+8·0	+10·6
23rd "	Jhansi	+7·2	+14·1
	Ajmer	+5·5	+12·2
	Rajkot	+5·4	+11·4
	Nowgong	+3·2	+11·0
	Saugor	+6·8	+10·6
	Indore	+5·9	+10·4
	Sambhar	+6·0	+10·4
	Lucknow	+7·6	+10·3
24th "	Jhansi	+6·4	+10·4
25th "	Rajkot	+3·4	+15·0
	Jacobabad	+5·8	+13·1
	Deesa	+2·8	+12·0
	Sirsa	+0·1	+10·8
	Ajmer	−0·5	+10·3
	Mooltan	+0·9	+10·1
26th "	Jacobabad	+8·7	+15·7

During these ten days also the mean temperature was steadily lower than usual over Burma and the extreme south of the Peninsula :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 17th Nov.	18th Nov.	19th Nov.	20th Nov.	21st Nov.	22nd Nov.	23rd Nov.	24th Nov.	25th Nov.	26th Nov.
	°	°	°	°	°	°	°	°	°	°
Burma	−0·5	−1·5	−1·6	−1·4	−1·4	−1·1	−1·3	−1·2	−0·7	−0·3
South India.	+2·7	+0·9	−2·6	−3·0	−3·8	−1·8	−0·9	0	−0·4	+0·6

On the 27th there occurred a temporary but very general fall of temperature over India (except the north-east) but the fall did not last and from the 28th to the close of the month the heat was everywhere excessive over India, the area of greatest excess having been re-established over Khandesh, the Deccan and the west of the Central Provinces. The following gives data for the last three days of the month for all the divisions of India :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 28th November.	29th November.	30th November.
	°	°	°
Burma	+0·6	−0·4	−0·3
Assam	+1·5	−0·9	−0·5
Bengal	+1·1	−0·4	−1·1
Orissa	+1·4	+1·6	+1·4
Bihar	+1·4	+0·3	0
Chota Nagpur	+1·5	+2·0	+2·1
North-Western Provinces and Oudh	+2·6	+0·6	+0·9
Punjab	+2·5	+1·7	+1·2
Sind	+4·4	+3·5	+3·8
Rajputana	+5·1	+2·5	+3·8
Gujarat	+3·3	+3·3	+2·8
Central India	+3·3	+3·1	+3·9
Central Provinces	+2·7	+3·8	+4·9
Berar	+4·3	+4·7	+7·4
West Coast	+1·2	+1·7	+2·1
Bombay Deccan	+4·1	+5·4	+5·7
Mysore	+0·5	+3·2	+2·3
Madras Coast	0	+0·1	+0·3
Madras Deccan	+0·7	+3·2	+3·4
South India	+2·2	+1·8	+1·5

The following table gives the variations of the mean temperature week by week during the month and also for the whole month :—

Province or Division.	Variation from normal of mean temperature for week ending				
	10th November.	17th November.	24th November.	1st December.	For whole month, November 1900.
	°	°	°	°	°
Burma . . .	+1·1	+0·5	—1·4	—0·2	0
Assam . . .	+1·2	+1·0	+1·2	+0·8	+0·9
Bengal . . .	+1·2	+0·4	+0·1	+0·3	+0·6
Orissa . . .	+0·3	+0·6	+0·7	+1·4	+0·4
Bihar . . .	+0·3	+1·6	+1·8	+0·9	+1·1
Chota Nagpur . .	—0·1	+0·9	+1·2	+1·8	+1·1
North-Western Provinces and Oudh.	+2·0	+2·7	+3·5	+1·9	+2·7
Punjab . . .	+4·6	+4·6	+3·8	+2·7	+4·0
Sind	+5·1	+3·1	+3·9	+5·1	+4·3
Rajputana . . .	+4·5	+3·1	+5·4	+4·3	+4·3
Gujarat . . .	+2·4	+1·7	+4·8	+4·2	+3·4
Central India . .	+1·2	+1·9	+5·5	+3·5	+3·2
Central Provinces .	—0·2	+1·1	+3·7	+3·8	+1·8
Berar. . . .	—0·4	+0·9	+4·7	+5·5	+1·6
West Coast . .	+1·8	+1·1	+3·3	+2·1	+1·9
Bombay Deccan. .	+0·8	+2·2	+4·9	+4·8	+2·8
Mysore . . .	+2·3	+1·3	+2·4	+1·6	+1·5
Madras Coast . .	+0·1	+0·4	+0·4	0	+0·2
Madras Deccan . .	+1·3	+2·7	+3·5	+2·3	+2·1
South India . .	+2·2	+2·1	—1·6	+1·0	+0·8

Winds.

At the Bay Islands and Burma coast observatories the winds were approximately normal as regards direction, steadiness and velocity though at Port Blair they were less and at Diamond Island more easterly than usual. At both stations the force was slightly below the average. The following gives data for direction and velocity for this area :—

Station.	Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual, November 1900.	Normal, November.	Easterly deflection.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	°	°	°			
Port Blair . . .	N 51 E	N 81 E	—30	122	165	—43
Rangoon . . .	N 62 E	N 63 E	— 1	98	97	+ 1
Diamond Island . .	N 70 E	N 60 E	+10	126	222	—96
Akyab . . .	N 7 E	N 3 E	+ 4	68	55	+13

At the head of the Bay as represented by Chittagong and False Point the wind direction was unusually northerly, while the velocity and steadiness varied irregularly from the normal. The following gives comparative data for these two stations :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage November 1900.	Normal percentage, November.	Variation of actual normal, November 1900.	Actual, November 1900.	Normal, November.	Northerly deflection.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
				°	°	°			
Chittagong	52	48	+ 4	N 6 W	N 19 W	+13	72	63	+ 9
False Point	52	59	— 7	N 22 E	N 27 E	+ 5	104	153	—49

In Lower and West Bengal the wind was abnormally westerly. The following gives comparative data for direction for the three stations of Calcutta, Saugor Island and Hazaribagh :—

Station.	Mean wind direction.		
	Actual, November 1900.	Normal, November.	Westerly deflection.
	°	°	°
Calcutta	N 32 W	N 14 W	+18
Saugor Island	N 24 W	N 3 E	+27
Hazaribagh	N 51 W	N 30 W	+21

At the above three stations the velocity and steadiness were about normal, while at Allahabad on the contrary the steadiness and velocity were in excess while the direction was normal. The following gives data for Allahabad :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, November 1900	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Westerly deflection.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
				°	°	°			
Allahabad.	33	23	+10	N 51 W	N 52 W	— 1	71	49	+22

At Dehra Dun and Roorkee the winds varied considerably from the normal direction, while at the remaining stations in the Upper Sub-Himalayas the direction was abnormally westerly. This is shown below :—

Station.	Mean wind direction.		
	Actual, November 1900.	Normal, November.	Westerly deflection.
	°	°	°
Dehra Dun	N 45 E	S 89 W	...
Roorkee	N 26 W	N 88 W	—62
Meerut	N 75 W	N 57 W	+18
Lahore	N 72 W	N 45 W	+27
Ludhiana	N 53 W	N 45 W	+ 8

As is usual in this area at this season the steadiness and velocity were both low. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Dehra Dun . . .	28	17	+11	15	34	—19
Roorkee . . .	7	4	+ 3	27	26	+ 1
Meerut . . .	28	40	—12	14	29	—15
Lahore . . .	22	18	+ 4	27	32	— 5
Ludhiana . . .	23	33	—10	28	23	+ 5

In the Indus Valley the winds were light and variable. The direction of the wind was more northerly than usual in the north and more southerly than usual in Sind. These variations in the direction are shown below :—

Station.	Mean wind direction.	
	Actual, November 1900.	Normal, November.
	°	°
Peshawar	N 4 E	N 76 E
Jacobabad	S 51 W	N 13 W
Kurrachee	S 59 W	N 85 W

In North Rajputana, as in the Punjab, the wind was more westerly than the average blowing from west-northwest while in the south the wind was east by north and was more easterly than usual. The following gives data for Jaipur and Deesa :—

Station.	Mean wind direction.	
	Actual, November 1900.	Normal, November.
	°	°
Jaipur	N 62 W	N 19 W
Deesa	N 89 E	N 61 E

The following gives mean data of the wind's direction, steadiness and velocity for the Bay Islands, Burma and the different provinces of Northern India :—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 100.	Normal, November.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
				°	°			
Bay Islands (Port Blair).	48	44	+ 4	N 51 E	N 18 E	122	165	—43
Burma . .	45	49	— 4	N 46 E	N 42 E	97	125	—28
Bengal . .	59	56	+ 3	N 21 W	N 3 W	101	97	+ 4
Bihar . .	30	40	—10	S 84 W	S 85 W	38	41	— 3
Chota Nagpur .	34	45	—11	N 51 W	N 30 W	109	110	— 1
Orissa . .	52	59	— 7	N 22 E	N 27 E	104	153	—49
N.-W. Provinces .	24	21	+ 3	N 32 W	N 73 W	32	35	— 3
Punjab . .	19	21	— 2	N 41 W	N 15 W	25	35	—10
Rajputana . .	32	42	—10	N 11 E	N 25 E	110	124	—14
Sind . . .	28	15	+13	S 55 W	N 49 W	75	112	—37

In the Deccan the wind was generally slightly more easterly than usual and at Sholapur, Poona and Khandwa there was a slight abnormal southerly component. The variations were probably directly related to the lower pressures than usual which prevailed over North Bombay, etc. The following gives direction data for the various stations in the Deccan:—

STATION.	MEAN WIND DIRECTION.	
	Actual, November 1900.	Normal, November.
	°	°
Belgaum	N 78 E	N 76 E
Sholapur	S 80 E	N 77 E
Poona	S 81 E	N 82 E
Akola	N 58 E	N 61 E
Buldana	N 67 E	N 64 E
Khandwa	S 82 E	N 58 E
Nagpur	N 73 E	N 54 E
Hyderabad (Deccan)	S 73 E	S 72 E

The wind was generally lighter than usual but the steadiness generally equalled or exceeded the average. This is shown below:—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Belgaum	81	64	+17	224	267	−43
Sholapur	69	65	+ 4	163	199	−36
Poona	56	60	− 4	171	138	+33
Akola	54	49	+ 5	57	85	−28
Buldana	58	52	+ 6	122	122	0
Khandwa	59	52	+ 7	58	64	− 6
Nagpur	25	60	−35	88	95	− 7
Hyderabad (Deccan)	63	67	− 4	83	88	− 5

Along the West coast the variations of the wind from the normal were generally small and unimportant though at Bombay the velocity was less than usual. The following gives data for Bombay and Karwar:—

STATION.	MEAN STEADINESS.			MEAN WIND DIRECTION.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Northerly deflection.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
				°	°				
Bombay	43	52	− 9	N 9 E	N 18 E	+ 9	200	235	−35
Karwar	43	46	− 3	N 25 W	N 31 W	+ 6	67	60	+ 7

In South India the wind was slightly more easterly than the average. This is shown below:—

STATION.	MEAN WIND DIRECTION.		
	Actual, November 1900.	Normal, November.	Easterly deflection.
	°	°	
Salem	N 65 E	N 87 E	+22
Chitaldroog	N 81 E	N 74 E	+ 7
Bangalore	N 71 E	N 61 E	+10
Hassan	N 74 E	N 71 E	+ 3
Mysore	N 75 E	N 78 E	− 3
Madras	N 29 E	N 24 E	+ 5
Bellary	S 87 E	N 81 E	+ 9

The steadiness in this area was greater than usual while the velocity varied irregularly from the average. The following gives comparative data:—

STATION.	MEAN STEADINESS			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, percentage November 1900.	Normal Percentage, November	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Salem	48	24	+24	95	74	+21
Chitaldroog	85	72	+13	160	160	0
Bangalore	77	64	+13	170	108	+62
Hassan	87	77	+10	56	86	−30
Mysore	78	72	+ 6	214	219	− 5
Bellary	78	55	+23	99	77	+22
Madras	84	64	+20	146	156	−10

The following gives mean data of direction, steadiness and velocity for the different divisions of the Peninsula :—

Province or Division.	Mean Steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Actual, November 1900	Normal, November.	Variation of actual from normal, November 1900.
				°	°			
Central Provinces .	42	56	—14	N 84 E	N 56 E	72	80	— 8
Berar . . .	56	51	+ 5	N 63 E	N 63 E	90	104	—14
Bombay Deccan .	69	63	+ 6	S 86 E	N 78 E	186	201	—15
Madras Deccan .	71	61	+10	S 80 E	S 87 E	91	83	+ 8
West Coast . .	43	49	— 6	N 6 W	N 6 W	134	148	—14
Mysore . .	82	71	+11	N 75 E	N 71 E	150	143	+ 7
Madras Coast .	84	64	+20	N 29 E	N 24 E	146	156	—10
South India . .	48	24	+24	N 65 E	N 87 E	95	74	+21

At Quetta the wind was more westerly than the average but was light and very variable. The following gives comparative data for this station :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Westerly Deflection.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
				°	°	°			
Quetta .	17	40	—23	N 71 W	N 51 W	+20	22	54	—32

At the Himalayan stations the wind's direction varied irregularly from the normal. This is shown below :—

Station.	Mean wind direction.	
	Actual, November 1900.	Normal, November.
	°	°
Leh	S 40 W	S 21 W
Srinagar	N 11 E	N 16 E
Kailang	S 44 W	S 52 W
Simla	N 3 E	S 12 W
Chakrata	S 25 E	S 61 W
Ranikhet	S 86 W	S 53 W
Katmandu	N 86 W	N 80 W
Darjeeling	S 46 E	N 79 W

At the central and southern hill stations the winds, as on the neighbouring plains, were more easterly than the normal. The following gives comparative data :—

Station.	Mean wind direction.		
	Actual, November 1900.	Normal, November.	Easterly deflection.
	°	°	°
Mount Abu	N 6 E	N 54 E	—48
Pachmarhi	N 52 E	N 46 E	+ 6
Chikalda	N 11 E	N 7 W	+ 4
Wellington	S 50 E	S 41 E	+ 9

In the Gulf of Aden the wind was very strong and was steadier than usual while the direction varied irregularly from the normal. The following gives comparative data for velocity and steadiness :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual, percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November	Variation of actual from normal, November 1900.
Aden . . .	80	66	+14	372	311	+61
Perim . . .	90	82	+ 8	531	491	+40

The South-East Trades on the mean of the month were unusually southerly as is shown below :—

Station.	Mean wind direction.		
	Actual, November 1900.	Normal, November.	Southerly Deflection.
	°	°	°
Zanzibar	S 14 E	S 31 E	+17
Seychelles	S 37 E	S 70 E	+33

The velocity was below the normal at Zanzibar and above it at the Seychelles, and the steadiness was greater than the average at both stations. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, November 1900.	Normal percentage, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Zanzibar . . .	37	29	+ 8	105	115	—10
Seychelles . . .	63	30	+33	177	140	+37

Humidity and Cloud.

As mentioned in a previous review the monsoon had withdrawn unusually early from the Bay area and the whole of Burma, North-East India and the east and south of the Peninsula had in consequence a lower humidity than usual, while over the Deccan, where the rains of the previous south-west monsoon had to a great extent failed, the air was unusually dry during November. The following gives data for those stations in the Peninsula where the deficiency in the relative humidity was greatest (10°/₀ or more) :—

Station.	Relative Humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	°/₀	°/₀	
Sholapur	40	53	—13
Buldana	37	50	—13
Bellary	51	62	—11
Belgaum	49	59	—10
Hyderabed (Deccan)	57	67	—10

On the other hand, the extreme north-west of India, where the rains continued very late in September and where the weather during November was affected at different times by slight depressions advancing from the westward, had higher humidities than usual. The following gives data for the stations at which the excess was greatest (5°/₀ or more) :—

Station.	Relative Humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	°/₀	°/₀	
Lahore	59	50	+9
Ludhiana	59	53	+6
Jacobabad	50	44	+6

In Burma, Lower Bengal and Orissa the absolute humidity was below the normal and the mean temperature generally in excess so that the relative humidity was everywhere low. This is shown below :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, November 1900.	Normal November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	°/₀	
Rangoon	·740	·782	—·042	76	78	—2
Diamond Island	·806	·791	+·015	74	78	—4
Chittagong	·642	·684	—·042	74	79	—5
Calcutta	·561	·584	—·023	68	73	—5
Saugor Island	·612	·637	—·025	71	75	—4
False Point	·621	·628	—·007	73	74	—1

In West Bengal and the North-Western Provinces the absolute humidity was in slight excess, but the mean temperature at nearly all stations was in excess of the average and the relative humidity was hence normal or in slight defect. The following gives data :—

Station.	Absolute Humidity.			Relative Humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Darbhanga	·540	·534	+·006	68	70	—2
Allahabad	·445	·412	+·033	60	62	—2
Dehra Dun	·358	·342	+·016	60	61	—1
Roorkee	·362	·345	+·017	58	58	0

In the Meerut division of the North-Western Provinces, as well as over the Punjab and Sind, the absolute humidity was in considerable to large excess so that notwithstand-

ing the large to considerable excess of temperature the relative humidity was excessive. This is shown below :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Meerut . . .	·384	·335	+·049	60	56	+4
Lahore . . .	·414	·315	+·099	59	50	+9
Ludhiana . .	·378	·313	+·065	59	53	+6
Peshawar . .	·320	·272	+·048	54	53	+1
Jacobabad . .	·400	·298	+·102	50	44	+6
Kurrachee . .	·517	·450	+·067	56	54	+2

In Rajputana the humidity was normal, as though the absolute humidity was in excess, the mean temperature was largely above the average. The following gives data for Jaipur and Deesa :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual, from normal, November 1900.
	"	"	"	%	%	
Jaipur . . .	·345	·297	+·048	43	43	0
Deesa . . .	·303	·281	+·022	34	34	0

The following gives mean data of absolute and relative humidities for the different divisions of Northern India and for Burma and the Bay Islands :—

Province or Division.	Mean Absolute humidity.			Mean Relative humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Burma . . .	·773	·787	—·014	75	78	—3
Bay Islands (Port Blair).	·897	·923	—·026	79	82	—3
Bengal . . .	·603	·633	—·030	71	76	—5
Bihar . . .	·540	·534	+·006	68	70	—2
Orissa . . .	·621	·628	—·007	73	74	—1
North-Western Provinces.	·387	·358	+·029	60	60	0
Punjab . . .	·371	·300	+·071	57	52	+5
Rajputana . .	·324	·289	+·035	39	39	0
Sind . . .	·459	·374	+·085	53	49	+4

In the Deccan the heat was greater than usual and the absolute humidity generally in defect so that the relative humidity was in large to considerable defect. The deficiency was greatest at the Solapur and Buldana stations which were in the midst of the dry area. The following gives data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Belgaum . .	·396	·464	—·068	49	59	—10
Sholapur . .	·353	·460	—·107	40	53	—13
Poona . . .	·344	·416	—·072	44	49	— 5
Akola . . .	·354	·410	—·056	45	53	— 8
Buldana . .	·300	·395	—·095	37	50	—13
Khandwa . .	·378	·369	+·009	47	49	— 2
Nagpur . .	·400	·431	—·031	50	55	— 5
Hyderabad (Deccan)	·475	·532	—·057	57	67	—10

On the Bombay coast the humidity was also below the normal but by smaller amounts than in the interior. The following gives data for Bombay and Karwar :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Bombay . .	·682	·694	—·012	66	70	—4
Karwar . . .	·682	·706	—·024	68	74	—6

At Madras the mean temperature was slightly below the normal and the absolute humidity slightly in excess so that the relative humidity was also excessive. Comparative data for this station are given below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Madras . . .	·799	·771	+·028	84	81	+3

At the remaining stations in South India the heat was greater than usual and the relative humidity in defect. This was particularly the case at Bellary at which station the humidity was locally very low. The following gives data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal. November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Salem	·690	·660	+·030	73	75	— 2
Chitaldroog . .	·502	·494	+·008	59	65	— 6
Bangalore . . .	·511	·532	—·021	68	73	— 5
Hassan . . .	·504	·536	—·032	69	73	— 4
Mysore . . .	·556	·570	—·014	67	68	— 1
Bellary . . .	·473	·540	—·067	51	62	—11

The following gives mean humidity data for the different divisions of the Peninsula :—

PROVINCE OR DIVISION.	MEAN ABSOLUTE HUMIDITY.			MEAN RELATIVE HUMIDITY.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November. 1900.
	"	"	"	%	%	
Central Provinces .	·389	·400	—·011	49	53	— 4
Berar	·327	·403	—·076	41	52	—11
Bombay Deccan .	·364	·446	—·082	44	53	— 9
Madras Deccan . .	·474	·536	—·062	54	65	—11
West Coast . .	·682	·700	—·018	67	72	— 5
Mysore . . .	·518	·533	—·015	66	70	— 4
Madras Coast . .	·799	·771	+·028	84	81	+ 3
South India . .	·690	·660	+·030	73	75	— 2

At the Baluchistan and Himalayan hill stations the absolute humidity was generally in excess of the normal, but the mean temperature was generally very high so that the relative humidity varied irregularly from the normal. At Quetta there was a large, and at Srinagar, Kailang, Ranikhet and Katmandu a slight excess, while at the remaining stations there was some deficiency. The following gives comparative data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Quetta	·239	·151	+·088	66	47	+19
Leh	·115	·092	+·023	53	54	— 1
Srinagar . . .	·327	·227	+·100	86	78	+ 8
Kailang . . .	·124	·102	+·022	54	52	+ 2
Simla	·168	·174	—·006	44	48	— 4
Chakrata . . .	·212	·199	+·013	53	55	— 2
Ranikhet . . .	·270	·250	+·020	61	59	+ 2
Katmandu . . .	·357	·337	+·020	74	72	+ 2
Darjeeling . . .	·270	·265	+·005	77	80	— 3

At Mount Abu both the absolute and relative humidities were in slight local excess but at the remaining hill stations in the centre and south the relative humidity was in defect, the deficiency having been considerable at Chikalda. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, November 1900.	Normal, November.	Variation of actual from norma, November1900.	Actual, November 1900.	Normal, Nov m-ber.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Mount Abu . . .	·277	·244	+·033	40	39	+ 1
Pachmarhi . . .	·297	·313	—·016	51	55	— 4
Chikalda . . .	·314	·366	—·052	45	55	—10
Wellington . . .	·422	·416	+·006	80	83	— 3

At Perim, if the values be correct, the air was exceedingly damp while in the South-East Trades region the humi-

dity was about normal. The following gives comparative data :—

Station.	Absolute humidity.			Relative humidity.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
	"	"	"	%	%	
Perim	·957	·672	+·285	87	62	+25
Zanzibar	·819	·819	0	77	81	−4
Seychelles	·818	·819	−·001	82	82	0

The principal features of the mean humidity conditions of the month were :—

(1) A slight to moderate deficiency over the Bay area and North-East India, greatest at the head of the Bay.

(2) A slight to considerable excess in the extreme north-west of India, greatest on the plains at Lahore and on the hills at Quetta.

(3) A considerable to large deficiency over the Peninsula, the amount of the deficiency increasing from the coast inland and being greatest over the dry area in the Bombay Deccan.

(4) A large local excess at Perim.

The variations in the amount of cloud were similar in general character to those of the aqueous vapour conditions. Thus there was some excess over a considerable part of North-West India, a slight local excess in the Coromandel coast districts from Madras southward and a less general cloudiness than usual elsewhere.

There was less cloud than usual over the Bay Islands, Burma and North-East India. The deficiency was moderate to considerable over Burma, and West and South-West Bengal. The following gives comparative data for those stations at which the deficiency was 1·0 or more :—

Station.	Mean cloud amount.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Diamond Island	3·0	4·5	−1·5
Rangoon	2·8	4·2	−1·4
Akyab	2·2	3·2	−1·0
Saugor Island	1·7	2·9	−1·2
False Point	2·6	3·6	−1·0
Chittagong	1·9	2·9	−1·0
Hazaribagh	1·5	2·5	−1·0

There was more cloud than usual over the greater parts of the North-Western Provinces, Rajputana, Sind, the Punjab and Baluchistan. The excess was small generally, but exceeded 2·0 at Peshawar and Quetta. This is shown by the following :—

Station.	Mean cloud amount.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Allahabad	1·4	1·2	+0·2
Dehra Dun	1·6	1·4	+0·2
Lahore	2·2	1·4	+0·8
Ludhiana	2·3	1·9	+0·4
Peshawar	4·4	2·3	+2·1
Jacobabad	2·2	1·4	+0·8
Jaipur	2·1	1·5	+0·6
Deesa	1·5	1·5	0

There was a small area of diminished cloudiness over the west of the North-Western Provinces while in South Rajputana the cloud amount was exactly normal and in Lower Sind there was slightly less cloud than usual. The following gives data for the stations in these areas :—

Province or Division.	Station.	Mean cloud amount.		
		Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
N.-W.-P. West	Roorkee	0·8	1·0	−0·2
	Meerut	0·7	0·8	−0·1
South Rajputana	Deesa	1·5	1·5	0
Lower Sind	Kurrachee	0·9	1·2	−0·3

The amount of cloud was less than usual over practically the whole of the Peninsula, but there was some local excess in the Madras Deccan and the south-east of the Peninsula. Comparative data for the stations within these areas are given below :—

Province or Division.	Station.	Mean cloud amount.		
		Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Madras Deccan	Bellary	6·2	4·9	+1·3
South-East of the Peninsula	Salem	5·5	5·2	+0·3
	Madras	6·2	6·0	+0·2

The amount of cloud was less than usual over the remainder of the Peninsula and the deficiency was more than 1·0 at the following stations :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, November 1900.	Normal, November.	Variation of actual from normal, November 1900.
Buldana	1·1	2·3	−1·2
Hassan	5·3	6·4	−1·1

The cloud was in excess in Baluchistan and at all the Himalayan hill stations from Chakrata westward but was in defect on the eastern Himalayas from Ranikhet to Darjeeling. Mount Abu had a slight local excess of cloud as it had also of humidity but at the remaining hill stations in the centre and south the cloud amount was normal or in defect. The following gives comparative data for all the hill stations :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, November 1900.	Normal, November	Variation of actual from normal November 1900.
Quetta	3·7	1·5	+2·2
Leh	4·3	4·1	+0·2
Srinagar	3·8	3·2	+0·6
Kailang	5·4	3·7	+1·7
Simla	2·6	2·3	+0·3
Chakrata	1·9	1·7	+0·2
Ranikhet	1·3	1·5	−0·2
Katmandu	2·0	2·5	−0·5
Darjeeling	3·6	4·4	−0·8
Mount Abu	2·0	1·5	+0·5
Pachmarhi	1·7	2·1	−0·4
Chikalda	0·7	2·4	−1·7
Wellington	6·8	6·8	0

At Aden the cloud amount was in excess while at Perim it was in defect and in the South-East Trades region was about normal. This is shown below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, November 1900.	Normal, November	Variation of actual from normal, November 1900.
Aden	2·7	2·2	+0·5
Perim	0·8	1·8	−1·0
Zanzibar	6·0	5·7	+0·3
Seychelles	6·8	6·9	−0·1

The chief features in the cloud distribution, relatively to the normal, during the month were :—

(1) Less cloud than usual in the north-east, particularly in Burma and South-West Bengal.

(2) Less cloud than usual over the Peninsula with a few local exceptions.

(3) More cloud than usual over the greater part of the Gangetic Plain, of North-West India and of Baluchistan the excess having been most marked at Peshawar and Quetta.

Rainfall.

Rain in India in November ordinarily falls under one of the two following conditions. An early example of a cold weather storm may give showers, of rain to the plains, and of snow to the hills, of North-West India, but the major part of the month's rainfall is usually due to the retreating south-west monsoon current in the Bay of Bengal. This current, entering the Bay in its south-east corner, passes up the Tenasserim Peninsula, and gives fairly frequent showers to Burma. It recurves, however, over the centre of the Bay and advances as a wind from

north-east to the Madras coast districts, the Deccan and Southern India, to which it usually gives frequent moderate rain The retreating current is, however, necessarily weak and unsteady and the rainfall due to it is hence subject to even greater irregularity than the ordinary south-west monsoon rainfall in Northern and Central India.

In consequence of the weakness and irregularity of the current and the conditions of the air movement in the Bay, there is a strong tendency to the formation of severe cyclonic storms. These storms, in the majority of cases advance westwards to the Madras coast, but occasionally march along a northerly track into Orissa, or a north-easterly track into Burma and Arakan. Hence Burma and Orissa, in addition to the light rainfall they almost invariably receive when cyclonic storms are forming in the Bay during the month, occasionally obtain heavy cyclonic falls. Bengal also usually receives light rain during the existence of these cyclonic storms in the Bay.

The chief features of the rainfall distribution of the month of November 1900 were as follows:—

(1) There was heavier rain than usual over Persia, Afghanistan, Baluchistan and the frontier districts of India.

(2) The rainfall of the month was practically *nil* over the whole of Northern and Central India and the head of the Peninsula with the exception of local showers in Rajputana, South-East Bengal, and the Upper Assam Valley.

(3) More or less rain was received over the Southern half of the Peninsula, Ceylon, the Bay Islands and Lower and Central Burma.

(4) Of the 23 divisions which received more or less rain during the month the fall was in excess only in five divisions, *viz*, Tenasserim, the Assam Valley, the Baluchistan hills, West Rajputana and the south divisions of Madras.

(5) The excess was large in Tenasserim and considerable in Baluchistan and slight in South Madras.

The chief periods of rainfall in India during the month were:—

(1) From the 1st to the 3rd when showers were received in Burma.

(2) From the 4th to the 11th when Burma and the south and east of the Peninsula received showers.

(3) From the 16th to the 23rd when the south-east and south of the Peninsula received moderate to heavy showers.

After the 24th rain practically ceased. The weather throughout the month was apparently in a very unsettled state on the north-west frontier and over the countries to the westward and the rainfall and snowfall over those regions was much in excess of the normal.

The following table gives the mean actual, mean normal and variation rainfall data for the 57 meteorological divisions into which India has been divided:—

Province.	Division.	Number of rainy days.		Rainfall.		
		Average actual, November 1900.	Average normal, November.	Average actual, November 1900.	Average normal, November.	Variation of actual from normal, November 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim *	...	...	3·26	1·20	+2·06
	Lower Burma (Deltaic) *	...	...	1·35	3·37	−2·02
	Central do*	...	...	0·79	1·80	−1·01
	Upper do*	...	...	0·53	1·20	−0·67
	Arakan*	...	...	1·28	3·29	−2·01
Bengal and Assam	Eastern Bengal	0·4	1·6	0·22	1·33	−1·11
	Assam (Surma)	0	1·9	0·01	1·50	−1·49
	Do. (Hills)	0·6	2·4	0·20	1·20	−1·00
	Do. (Brahmaputra)	1·4	1·2	0·55	0·54	+0·01
	Deltaic Bengal	0·1	1·1	0·05	0·91	−0·86
	Central do.	0	0·8	0	0·56	−0·56
	North do.	0	0·3	0	0·15	−0·15
	Bengal Hills	0	0·9	0	0·38	−0·38
	Orissa	0·1	2·0	0·05	2·09	−2·40
	Chota Nagpur	0	0·8	0	0·48	−0·48
	Bihar (South)	0	0·4	0	0·24	−0·24
	Do. (North)	0	0·3	0	0·13	−0·13
North-Western Provinces and Oudh.	North-Western Provinces (East)	0	0·2	0	0·11	−0·11
	Oudh (South)	0	0·1	0	0·02	−0·02
	Do. (North)	0	0·1	0	0·04	−0·04
	North-Western Provinces (Central)	0	0·1	0	0·04	−0·04
	Do. do. (West)	0	0	0	0·01	−0·01
	Do. do. (East Submontane)	0	0·2	0	0·07	−0·07
	Do. do. (West do.)	0	0·3	0	0·13	−0·13
	Do. do. (Hills)	0	0·6	0	0·22	−0·22

* The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Province.	Division.	Number of rainy days. Average actual, November 1900.	Number of rainy days. Average normal, November	Rainfall. Average actual, November 1900.	Rainfall. Average normal, November.	Rainfall. Variation of actual from normal, November 1900.
				Inches.	Inches.	Inches.
Punjab	Punjab (South-East)	0·3	0·2	0·08	0·03	+0·05
	Do. (South)	0	0·1	0	0·06	—0·06
	Do. (Central)	0	0·3	0	0·21	—0·21
	Do. (Submontane)	0	0·3	0	0·17	—0·17
	Do. (Hills)	0	0·9	0	0·75	—0·75
	Do. (North)	0·6	0·7	0·23	0·69	—0·46
	Do. (West)	0	0·2	0	0·15	—0·15
Bombay and Malabar Coast Districts (Madras)	Malabar	1·7	5·1	0·96	3·58	—2·62
	Travancore	8·1	...	5·28	...	...
	Madras (South Central)	3·0	5·7	1·21	3·77	—2·56
	Coorg	1·0	...	0·41	...	...
	Mysore*	...	...	0·45	2·31	—1·86
	Konkan	0·2	1·7	0·09	1·10	—1·01
	Bombay (Deccan)	0·3	2·4	0·11	1·44	—1·33
	Khandesh	0	1·4	0	0·92	—0·92
Central Provinces and Berar.	Berar	...	...	0	0·64	—0·64
	Central Provinces (West)	0	0·7	0	0·38	—0·38
	Ditto. (Central)	0	0·6	0·01	0·37	—0·36
	Ditto. (East)	0	0·8	0	0·47	—0·47
Bombay (North)	Gujarat	0	0·4	0	0·18	—0·18
	Kathiawar and Cutch	0·1	0·2	0·01	0·32	—0·31
	Sind	0·2	...	0·05	0·07	—0·02
	Baluchistan Hills	3·6	...	1·20	0·73	+0·47
Rajputana and Central India.	Central India (East)	0	...	0·01	0·33	—0·32
	Rajputana (East), Central India (West)	0·2	...	0·08	0·19	—0·11
	Rajputana (West)	0·5	...	0·15	0·12	+0·03
Madras	East Coast (North)	1·3	2·9	0·70	2·17	—2·01
	Hyderabad (South)*	...	...	0·62	...	...
	Madras (Central)	1·2	3·3	0·46	2·16	—1·70
	East Coast (Central)	6·1	6·9	4·28	8·12	—3·84
	Ditto. (South)	7·4	9·1	5·91	9·17	—3·26
	Madras (South)	8·7	8·0	7·50	6·27	+1·23

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

Burma received rain during the first three weeks of the month. The total fall of the month was heavier than usual in Tenasserim but in the remaining provinces only about half the usual amount was received. This is shown below:—

Division.	Rainfall. Average actual, November 1900.	Rainfall. Average normal, November.	Rainfall. Variation of actual from normal, November 1900.	Rainfall. Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	3·26	1·20	+2·06	+172
Lower Burma (Deltaic)	1·35	3·37	—2·02	— 60
Central Burma	0·79	1·80	—1·01	— 56
Upper Burma	0·53	1·20	—0·67	— 56
Arakan	1·28	3·29	—2·01	— 61

Assam received rain in the form of light showers between the 17th and 19th and between the 26th and 29th. During the latter showery period the following falls exceeding 1″ in 24 hours were recorded:—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Darrang	Gahpur	27th November	1·40
Lakhimpur	Sadiya	28th "	1·67

In the Assam Valley the month's rainfall was normal,

while in the Surma and Hills divisions it was in large defect. The following gives data :—

Division.	Rainfall.				Number of rainy days.	
	Average actual, November 1900.	Average normal, November.	Variation of actual from normal, November 1900.	Percentage variation from normal.	Average actual, November. 1900.	Average normal, November.
	Inch.	Inches.	Inches.			
Assam (Surma) . .	0·01	1·50	—1·49	—99	0	1·9
Assam (Hills) . .	0·20	1·20	—1·00	—83	0·6	2·4
Assam (Brahmaputra) .	0·55	0·54	+0·01	+ 2	1·4	1·2

In Bengal there was practically no rain throughout the month though some showers occurred in the south-east districts on the 3rd and 4th. The North-Western Provinces were quite and the Punjab was practically rainless throughout the month though some showers occurred in the Gurgaon, Rohtak, Delhi, Rawalpindi, Peshawar, Hazara and Sannu divisions. In the South-East Punjab the small normal rainfall of the month was exceeded but in all the remaining divisions the month's rainfall was in large defect.

Baluchistan received steady rain and snow from the 12th to the 23rd. The amounts were moderate ranging generally from between one-quarter and three-quarters of an inch and the total was considerably in excess of the average. Kashmir had only one or two scattered showers. Rajputana received light scattered showers between the 15th and 22nd, but the small total of the month was exceeded in the western division, while Jassakhera in Ajmer-Merwara had a fall of 1·15 inches during the 24 hours ending at 8 A.M. on the 16th. In Central India there was no rain and the Central Provinces and Berar were also rainless.

Bombay was practically rainless throughout the month though the Konkan, the Karnatak and the Deccan had a few light showers during the first week.

Rain was received in all the divisions of the Madras Presidency. In Malabar and Travancore the showers occurred between the 6th and the 11th and the 17th and the 23rd. The amounts were less than usual, as is shown by the following which gives data for the different districts of the Malabar division :—

Division.	District.	Rainfall.			
		Average actual, November 1900.	Average normal November.	Variation of actual from normal, November 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Malabar .	Malabar . .	1·17	3·95	—2·78	—70
	South Canara .	0·59	2·93	—2·34	—80

In South Madras Showers fell between the 6th and the 11th and general rain between the 17th and 24th. The amounts exceeded 3″ 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.
Tinnevelly . .	Kulasekarapatnam .	19th November	5·40
	Kuttanguli . .	" " .	3·35
	Kayalpatnam . .	20th " .	5·90
	Keeranur . . .	" " .	5·56
	Kulasekarapatnam .	" " .	4·86
	Arasadi . . .	" " .	4·50
	Tuticorin . . .	" " .	3·83
	Srivaikuntam . .	" " .	3·36
Madura . .	Morekulam . .	" " .	3·02

The general fall of the division was in excess of the normal, as is shown by the following table which gives comparative data for the two districts in this division :—

Division.	District.	Rainfall.			
		Average actual, November 1900.	Average normal, November.	Variation of actual from normal, November 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
South Madras.	Madura . .	5·13	6·07	—0·94	—15
	Tinnevelly .	10·39	6·62	+3·77	+57

In South Central Madras the only general rainfall was between the 18th and the 22nd and the rainfall of the

month was in large defect. The following gives data for the two districts of this division :—

Division.	District.	Rainfall.			
		Average actual, November 1900.	Average normal, November.	Variation of actual from normal, November 1900.	Percentage variation from normal.
		Inch.	Inches.	Inches.	
Madras South Central.	Salem . .	1·14	4·03	—2·89	—72
	Coimbatore .	1·40	3·69	—2·29	—62

Central Madras received a few showers during the first week and again on the 19th and 20th but the total average rainfall was less than half an inch and all the four districts of this division exhibited a deficiency. This is shown below :—

Division.	District.	Rainfall.			
		Average actual, November 1900.	Average normal, November.	Variation of actual from normal, Novembe. 1900.	Percentage variation from normal.
		Inch.	Inches.	Inches.	
Madras Central.	Cuddapah .	0·98	3·65	—2·67	—73
	Anantapur .	0·09	1·85	—1·76	—96
	Bellary . .	0·15	1 40	—1·25	—89
	Kurnool . .	0·49	1·41	—0·92	—65

The north division of the East coast received showers during the first week of the month after which the weather was fine and the total fall was only about one-quarter of the normal. The following gives comparative data for the districts in this division :—

District.	Station.	Rainfall.			
		Average actual, November 1900.	Average normal, November	Variation of actual from normal, November 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
East Coast North.	Ganjam . .	0·13	2·52	—2 39	—95
	Vizagapatam .	0·83	2·74	—1·91	—70
	Godavari .	1·18	3·23	—2·05	—63
	Kistna . .	0·81	3·01	—2·20	—73

The central division had more rain receiving showers between the 3rd and the 8th, and the 16th and the 21st, but only about half the normal fall was received. This is shown below :—

Division.	District.	Rainfall.			
		Average actual, November 1900.	Average normal, November	Variation of actual from normal, November 1900.	Percentage variation from normal.
		Inches.	Inches	Inches,	
East Coast Central.	Nellore . .	4·28	8·12	—3 84	—47

The south division received showers during the first week of the month and general moderate to heavy rain between the 16th and the 23rd, During the second fall the following amounts exceeding 3″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
South Arcot .	Mannargudi . .	22nd Nov. .	3·86
	Chidambaram . .	,, . .	3·20

The total fall of the month in this division was heavier than in other parts of the East coast but was not equal to the average. The following gives comparative data for the different districts composing this division :—

Division	District..	Rainfall.			
		Average actual, November 1900.	Average normal, November.	Variation of actual from normal, November 1900.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
East Coast South.	Madras . .	3·10	13·48	—10·38	—77
	Chingleput .	3·75	12·17	—8 ·42	—68
	North Arcot .	2·59	6·74	—4 ·15	—62
	South Arcot .	6·62	9·47	—2 ·85	—30
	Tanjore . .	11·25	10·83	+0 ·42	+ 4
	Trichinopoly .	3·96	5·54	—1 ·58	—29

Tab

Abstract of Observations taken at 8 A.M. at 2

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure 8 A.M. in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
	I.—Burma Coast and Bay Islands.				**0**								**87·2**	**+0·1**	**72·1**	**−1·7**	**79·7**	**−0·8**	**15·1**					23
1	Tenasserim and Bay Islands.	Car Nicobar	25	29·821		29·774	29·855	3rd & 4th.	29·782	9th & 10th.	0·73	79·3	86·3		76·6		81·5		9·7	87·7	1st & 13th.	73·0	10th.	14
		Port Blair	61	29·891	+·015	29·883	29·919	3rd	29·835	9th	·084	81·5	88·1		78·4		83·3		9·7	90·3	16th	75·4	25th	14
		Mergui	96	29·854	+·005	29·882	29·907	2nd	29·791	9th	·116	78·9	88·5	+1·3	72·1	+2·6?	80·3	+2·0?	16·4	91·1	1st	66·4	17th & 18th.	24
		Tavoy	26	29·929	−·039	29·886	29·975	18th	29·861	9th	·114	75·7	88·6	+0·6	68·8	+0·1	78·7	+0·4	19·8	91·2	1st	62·0	18th	29
		Moulmein	94	29·889	−·002	29·921	29·943	18th	29·798	9th	·145	75·6	88·6	+0·3	70·9	−0·2	79·8	+0·1	17·7	92·0	13th	63·4	18th	28
2	Lower Burma	Rangoon	41	29·937	−·003	29·916	29·998	19th	29·846	9th	·152	75·5	86·6	−0·7	70·8	−2·1	78·7	−1·4	15·8	89·6	5th	64·3	4 days	25
		Bassein	27	29·959	+·009	29·922	30·017	19th	29·867	9th	·150	75·1	86·0	+0·1	71·7	−0·1	78·9	0	14·3	89·7	5th	65·8	19th	23
		Diamond Island.	41	29·933	+·006	29·909	29·992	19th	29·842	9th	·150	81·0	86·4	+0·7	77·4	?	81·9	?	9·0	90·1	13th	74·2	20th	15
5	Arakan	Akyab	20	29·962	0	29·925	30·018	15th	29·854	9th	·164	73·3	86·5	+1·0	67·7	−4·2	77·1	−1·6	18·8	89·9	9th	60·5	30th	29
3	Central Burma	Toungoo	183	29·802	+·005	29·930	29·851	22nd	29·705	9th	·146	74·6	86·4	−0·6	66·9	−3·4	76·7	−2·0	19·5	90·6	11th	60·6	21st	30
	II.—Burma Inland.				**−·008**								**87·1**	**+1·2**	**65·4**	**−0·2**	**76·3**	**+0·5**	**21·7**					31
3	Central Burma	Thayetmyo*	130	29·873	+·012	29·947	29·931	16th	29·758	10th	·173	74·3	88·7	+1·2	65·7	−2·3	77·2	−0·6	23·0	91·9	4th	59·3	29th	32
4	Upper Burma	Minbu	165	29·846	?	29·958	29·925	16th	29·728	9th	·197	73·8	88·6	−0·5	67·6	−0·4	78·1	−0·5	21·0	92·6	4th	60·5	29th	32·1
		Yamethin	657	29·328	?	29·949	29·382	16th	29·224	9th	·158	72·9	88·2	−0·8	66·8	+0·1	77·5	−0·4	21·4	90·5	17th	60·2	25th, 29th & 30th.	30·3
		Mandalay	250	29·757	−·004	29·961	29·843	15th	29·644	10th	·199	73·7	89·8	+3·2	67·7	+0·5	78·8	+1·9	22·1	93·5	4th	61·1	23rd & 24th.	32·4
		Kindat	377	29·649	−·017	29·994	29·733	15th	29·531	9th	·202	68·7	84·1	+2·6	64·5	0	74·3	+1·3	19·6	88·8	8th	61·3	29th & 30th.	27·5
		Bhamo	381	29·627	−·022	29·976	29·695	15th	29·513	9th	·182	68·2	83·2	+1·4	60·2	+0·7	71·7	+1·1	23·0	87·5	10th	54·2	25th	33·3
4(a)	Burma Hill Stations.	Maymyo										62·4	71·0		?		?		?	80·0	1st	?		?
		Taunggyi										61·2	67·7?	−6·4?	52·5	+0·8	60·1	−2·8?	?15·2	75·1	30th	46·0	20th & 30th.	29·1
		Lashio										61·9	78·6	+1·8	55·5	+1·3	67·1	+1·6	23·1	83·6	1st, 5th & 9th.	47·5	25th	36·1
	III.—Assam.				**−·007**								**83·6**	**+1·7**	**61·7**	**−0·1**	**72·7**	**+0·9**	**21·8**					31·1
7	Surma	Silchar	104	29·919	+·013	29·979	29·988	15th	29·806	9th	·182	69·9	88·9	+4·2?	62·0	−1·8	75·6	+1·2?	26·9	94·5	2nd & 9th	57·4	23rd	37·1
9	Brahmaputra	Sibsagar	333	29·705	−·015	30·009	29·769	3rd & 15th	29·593	9th	·176	63·8	79·0	+0·6	60·3	+0·5	69·7	+0·6	18·7	83·3	7th, 8th & 10th.	55·4	30th	27·9
		Dhubri	115	29·900	−·019	29·975	29·966	15th	29·793	9th	·173	68·5	82·8	+2·8	62·9	−0·7	72·9	+1·1	19·9	86·2	8th	57·8	30th	28·4
	IV.—Bengal and Orissa.				**−·001**								**84·2**	**+1·7**	**62·6**	**−0·5**	**73·4**	**+0·6**	**21·6**					32·4
6	East Bengal	Chittagong	87	29·906	−·001	29·944	29·958	15th & 22nd.	29·814	8th & 9th.	·144	72·0	85·8	+3·0	64·3	−2·0	75·0	+0·5	21·5	89·5	7th	56·1	30th	33·4
		Noakhali	43	29·954		29·945	30·014	22nd	29·863	9th	·151	71·5	85·9		62·2		74·1		23·7	89·5	8th	53·0	30th	36·5
		Comilla	36	29·972		29·957	30·031	16th	29·883	9th	·148	73·3	86·3		62·6		74·5		23·7	90·4	2nd & 9th.	55·0	30th	35·4
		Sirajganj	49	29·944		29·944	30·001	15th & 16th.	29·849	9th	·152	68·4	83·6		62·5		73·1		21·1	87·7	8th	53·1	30th	34·5
		Narayanganj	26	29·974?	−·001	29·949?	30·034	15th	29·879	9th	·155	71·2	84·5	+0·8	65·0	−0·9	74·8	−0·1	19·5	89·1	8th	57·3	30th	31·8
		Barisal	13	29·990	+·001	29·949	30·051	15th	29·892	9th	·159	73·5	84·6	+2·4	64·9	−0·5	74·8	+1·0	19·7	88·3	9th	57·2	30th	31·1
		Mymensingh	59	29·952	+·008	29·965	30·009	15th	29·851	9th	·158	69·8	83·6	+1·3	62·9	−0·3	73·3	+0·5	20·7	87·9	3rd	54·6	30th	33·3
10	Deltaic Bengal	Faridpur	46	29·965		29·960	30·029	15th	29·865	9th	·164	70·5	83·8*		62·4		73·1*		21·4	87·3	3rd & 9th.	53·0	30th	34·3
		Jessore	33	29·974	−·007	29·955	30·039	15th	29·876	9th	·163	70·9	84·0	+0·7?	62·9	−1·3	73·4	−0·3?	21·1	88·5	9th	54·1	30th	34·4
		Calcutta	21	29·99	−·005	29·964	30·054	15th	29·899	9th	·155	71·5	84·2	+3·0	63·6	−1·0	73·9	+1·0	20·6	89·1	4th	57·1	30th	32·0
		Saugor Island	25	29·981?	?	29·951?	30·035	15th	29·871	9th	·164	72·4	83·1	+1·7	66·4	−0·6	74·8	+0·6	16·7	86·9	5th	60·6	30th	26·3
		Krishnagar	47	29·975		29·973	30·036	15th	29·886	8th & 9th.	·150	70·9	85·2		61·7		73·5		23·5	89·1	9th	54·3	30th	34·8
		Midnapore	149	29·867		29·968	29·926	15th	29·768	9th	·158	70·6	85·3		61·9		73·7		23·4	87·3	4th	57·2	30th	30·1

* Mean of 29 days.

tations in India, Burma, etc., in November, 1900.

Wind Direction. Number of winds from N.	NE.	E.	SE.	S.	SW	W.	NW	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 30th November 1900.	Normal rainfall for period, 1st October to 30th November.	Variation from normal of period, 1st October to 30th November.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																			2·23	4·05	−2·17					I.—Burma Coast and Bay Islands.		
9 1	7	4	3	1				N 75° E	3·3	3·3			87	·870	8·3	10			5·45			17·52			1·46	Car Nicobar†	Tenasserim and Bay Islands.	1
2 5	11	3	2	1		3	3	N 28° E	5·1		7·1	−28	84	·902	4·4	9			3·90	8·97	− 5·07	14·13	21·14	− 7·01	1·10	Port Blair.		
0								Calm	2·2	2·0	1·6	+25	79	·764	3·5	2			1·23	4·30	− 3·07	10·31	17·62	− 7·31	0·66	Mergui.		
9	1							N 45° E	0·9				85	·767	0·7	5			2·42	2·13	+ 0·29	6·93	12·26	− 5·33	0·93	Tavoy.		
4	13	2	6	3	1		1	N 67° E	1·5	1·7	2·4	−29	86	·765	1·8	4	2·18	+1·82	2·50	2·32	+ 0·18	11·62	10·42	+ 1·20	1·38	Moulmein		
2	15	8	1		3	1		N 59° E	4·0		4·4	− 9	86	·767	2·1	1	3·18	−2·18	1·52	2·98	− 1·46	8·53	9·72	− 1·19	1·42	Rangoon .	Lower Burma.	2
2 3	13	2						N 43° E	2·9		3·1	− 6	88	·776	2·6	3	5·55	−2·55	2·35	4·21	− 1·86	6·09	12·42	− 6·33	1·04	Bassein.		
4 3	10	10	1	1			1	N 62° E	5·5	5·5	8·6	−36	77	·839	2·7	3	7·10	−4·10	1·98	7·21	− 5·23	4·90	16·43	−11·53	1·02	Diamond Island.		
19	8	2	1					N 19° E	2·9		2·2	+32	90	·751	1·8	1	3·09	−2·09	0·27	2·94	− 2·67	4·44	13·38	− 8·94	0·18	Akyab. .	Arakan.	5
1 10	5	1	3	4		1	5	N 10° E	2·0	2·0	1·7	+18	85	·729	4·2	1	2·36	−1·36	0·69	1·37	− 0·68	10·61	8·13	+ 2·48	0·54	Toungoo .	Central Burma.	3
																			0·81	1·39	−0·58					II.—Burma Inland.		
9 6	1		1	1		1		N 5° E	1·7		3·5	−51	81	·701	0·8	2	3·45	−1·45	0·62	2·16	− 1·54	5·29	6·40	− 1·11	0·43	Thayetmyo .	Central Burma.	3
2 6			3	2		3	14	N 43° W	3·9	4·6			80	·684	3·4	0			0	1·18	− 1·18	6·45	4·22	+ 2·23	0	Minbu .	Upper Burma.	4
3 5	1		6	1		1	3	N 36° E	2·0	2·1			86	·703	3·5	3			3·84	1·13	+ 2·71	7·76	5·87	+ 1·89	2·37	Yamethin.		
7 1			3	6	2	1		S 2° W	1·3	1·3			83	·699	1·6	3			0·39	1·28	− 0·89	5·63	6·36	− 0·73	0·14	Mandalay.		
9	1							N 45° E	0·6	0·6			92	·655	2·4	0			0	1·73	− 1·73	5·88	7·88	− 2·00	0	Kindat.		
5	9	5				1		N 58° E	2·0	2·3			86	·596	2·9	0			0	0·87	− 0·87	3·71	4·63	− 0·92	0	Bhamo.		
													88	·508												Maymyo .	Burma Hill Stations.	4(a)
1	2	1	3	12	10		1	S 10° W					82	·452	3·3	4			1·43	1·27	+ 0·16	6·14	6·86	− 0·72	0·49	Taunggyi.		
													93	·521	7·0	5			2·46	1·24	+ 1·22	6·59	4·43	+ 2·16	0·85	Lashio.		
																			0·57	0·85	−0·28					III.—Assam.		
5	2	2						N 67° E	0·2	0·3	2·1	−86	83	·618	2·1	0	1·86	−1·86	0	1·31	− 1·31	0·59	7·96	− 7·37	0	Silchar .	Surma.	7
3	2							N 45° E	1·1	1·0	1·7	−41	100	·594	3·3	3	2·00	+1·00	1·70	0·98	+ 0·72	8·43	5·82	+ 2·61	0·65	Sibsagar .	Brahmaputra.	9
3 1	4	18	1	1	2			N 88° E	2·5	3·0	4·9	−39	84	·589	1·0	0	0·47	−0·47	0	0·26	− 0·26	2·07	3·76	− 1·69	0	Dhubri.		
																			0·04	0·96	−0·92					IV.—Bengal and Orissa.		
5	22	3						N 42° E	3·0	2·9	3·0	− 3	85	·673	1·6	0	1·96	−1·96	0	1·53	− 1·53	1·51	7·77	− 6·26	0	Chittagong .	East Bengal.	6
17	5	3		2			3	N 11° E	1·8	1·7			84	·647	1·9	1	1·58	−0·58	0·74	1·81	− 1·07	5·57	9·51	− 3·94	0·72	Noakhali.		
5 10	4				1			N 10° E	1·6				77	·635	1·0	0	1·88	−1·88	0·02	1·14	− 1·12	3·11	6·34	− 3·23	0·02	Comilla.		
5 2							2	N 18° W	0·4	0·4			90	·625	0·3	0	0·96	−0·96	0	0·60	− 0·60	1·44	4·83	− 3·39	0	Sirajganj.		
3 13	5	1	1	1	0	2	4	N 1° E	2·3		1·9	+21	83	·637	1·7	0	1·85	−1·85	0·05	1·74	− 1·69	0·51	6·16	− 5·65	0·05	Narayanganj.		
4 8	7			1		2	8	N 9° W	1·7	1·7			83	·693	1·4	1	1·58	−0·58	0·14	1·27	− 1·13	4·02	6·88	− 2·86	0·13	Barisal.		
6		2	2					S 72° E	0·1	0·1			86	·624	?	0	1·00	−1·00	0	0·61	− 0·61	1·82	6·23	− 4·41	0	Mymensingh.		
9 1								N	1·1	1·3			86	·644	0·9	1	1·27	−0·27	0·20	1·18	− 0·88	4·63	5·27	− 0·64	0·30	Faridpur .	Deltaic Bengal.	10
7 3								N	0·5	0·5	1·8	−72	80	·602	1·0	0	1·27	−1·27	0·02	1·22	− 1·20	5·98	5·77	+ 0·21	0·02	Jessore.		
6 14						2		N 22° W	2·8	3·0	3·0	0	80	·621	1·0	0	1·00	−1·00	0	0·66	− 0·66	0·82	5·05	− 4·23	0	Calcutta.		
14	7	1				2	6	N 1° W	6·9		6·4	+ 8	85	·678	1·5	0	1·58	−1·58	0·03	1·52	− 1·49	6·38	10·66	− 4·28	0·03	Saugor Island		
9	2	2		2	1	5	9	N 33° W	1·9				79	·598	1·1	0	0·88	−0·88	0	0·94	− 0·94	0·70	5·16	− 4·46	0	Krishnagar.		
5 21						1	3	N 7° W	1·5	2·0			70	·527	0·6	0	0·96	−0·96	0	0·63	− 0·63	1·98	4·93	− 2·95	0	Midnapore.		

† Wind variable 5.

Tab

Abstract of Observations taken at 8 A.M. at 22 Statio

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
11	Central Bengal.	Bankura	298	29·692		29·953	29·746	15th	29·597	9th	·149	68·9	85·1		62·8		74·0		22·3	89·1	4th	57·4	30th	31
		Raniganj	334	29·673		29·970	29·729	15th	29·577	9th	·152	68·0	84·8		61·5		73·2		23·3	87·8	4th	56·1	29th & 30th.	31
		Burdwan	99	29·926	—·004	29·976	29·982	15th	29·826	9th	·156	70·6	85·6	+2·9	64·3	+0·2	75·0	+1·6	21·3	89·6	4th	57·0	30th	32
		Naya Dumka	489	29·522?		29·990?	29·581	15th	29·430	9th	·151	68·1	82·6		59·7		71·2		22·6	85·4	2nd & 4th.	53·0	30th	32
		Berhampore	67	29·950	—·014	29·967	30·012	15th	29·854	9th	·158	69·7	83·3	+1·5	63·8	—0·3	73·6	+0·6	19·5	86·3	8th & 9th.	57·2	29th & 30th.	28
		Rampur Boalia	70	29·954		29·975	30·016	15th	29·856	9th	·160	70·9	82·7		62·5		72·6		20·2	85·7	3rd	53·7	30th	32
		Malda	72	29·951		29·977	30·016	15th	29·853	9th	·163	69·3	82·9		61·3		72·2		21·6	86·1	2nd & 4th.	51·3	30th	34
		Bogra	61	29·949		29·964	30·002	15th & 16th.	29·863	9th	·139	70·4	84·4	+2·3	61·8	—0·4	73·1	+1·0	22·6	89·2	8th	52·7	30th	36
12	North Bengal	Dinajpur	123	29·890	+·003	29·974	29·960	15th	29·791	9th	·169	67·8	83·5	+1·1	58·8	—1·5	71·2	—0·2	24·7	87·3	3rd	48·4	29th	39
		Rangpur	123	29·886		29·968	29·946	15th	29·781	9th	·165	66·4	83·8		57·2		70·5		26·6	87·7	8th	40·9?	29th	46
		Jalpaiguri	284	29·735	—·007	29·968	29·801	15th	29·621	9th	·180	66·4	82·3	+0·6	60·2	+0·6	71·3	+0·6	22·1	86·4	2nd	56·1	30th	30
		Cooch Behar	156	29·871		29·989	29·935	15th	29·767	9th	·169	66·6	83·3		60·6		72·0		22·7	86·8	7th	57·2	30th	29
17	North Bihar	Purnea	125	29·900	—·001	29·985	29·970	15th	29·802	9th	·168	64·6	82·0	+0·1	60·3	+1·5	71·2	+0·8	21·7	85·4	4th	50·3	30th	35
14	Orissa	Balasore	46	29·980	+·008	29·975	30·032	22nd	29·883	9th	·149	68·6	84·9	+2·2	61·8	—0·6	73·4	+0·8	23·1	88·4	4th	56·0	26th	32
		False Point	21	30·002	+·006	29·965	30·060	22nd	29·892	9th	·168	71·7	83·9	+2·0	64·2	—1·5	74·1	+0·3	19·7	87·4	4th	59·0	23rd, 24th & 30th.	28
		Cuttack	80	29·947	+·007	29·973	29·997	15th	29·837	9th	·160	69·7	86·2	+1·2	65·9	—0·2	76·0	+0·5	20·3	96·4	5th	61·7	23rd	28
		Puri	20	30·006		29·969	30·057	15th	29·899	9th	·158	73·2*	85·5*		68·5*		77·0*		17·0	91·7	9th	65·1	29th & 30th.	26
	V.—Gangetic Plain and Chota Nagpur.				—·014	...	...	...	...	...	...	...	83·5	+1·8	58·5	+1·3	71·1	+1·6	25·1	...	...	...	...	35·6
15	Chota Nagpur	Hazaribagh	2,007	27·985	—·002	30·002	28·043	16th	27·901	9th	·142	?	?	?	?	?	?	?	?	?	?	?	?	?
		Ranchi	2,128	27·862	+·006	29·991	27·913	15th	27·770	9th	·143	66·1	77·9	+1·5	57·6	+1·6	67·8	+1·6	20·3	81·8	4th	53·6	29th	28·2
		Daltonganj	730?	29·288		30·011?	29·349	15th	29·192	9th	·157	60·5	82·9		52·6		67·8		30·3	87·1‡	1st	48·0	26th, 29th & 30th.	39·1
		Purulia		29·194		29·985	29·234	16th	29·108	9th	·126	68·4	84·1		65·0		74·6		19·1	87·0	4th	61·3	30th	25·7
		Chaibassa	760	29·245		29·984	29·296	15th	29·152	9th	·144	66·4	83·9	+1·4	59·7	—0·3	71·8	+0·6	24·2	86·9	1st	55·3	30th	31·6
16	South Bihar	Gaya	375	29·651	—·007	29·997	29·719	15th	29·562	9th	·157	66·8	84·5	+2·1?	59·9	+0·8	72·2	+1·5	24·6	87·2	1st & 2nd.	51·8	26th & 27th.	35·4
		Dehri	351	29·667		29·989	29·742	15th	29·570	9th	·172	67·5	83·8		61·9		72·9		21·9	86·8	1st	57·1	30th	29·7
		Patna	183	29·844?	—·019	29·987?	29·931	16th	29·741	9th	·190	68·1	82·6	+1·2	60·9	+1·0	71·8	+1·1	21·7	86·0	1st	54·4	30th	31·6
		Arrah	190	29·821		29·972	29·892	16th	29·722	9th	·170	65·7	83·6		58·1		70·9		25·5	87·5	1st	51·0	30th	36·5
		Buxar	239	29·785		29·989	29·859	15th	29·686	9th	·173	68·9	84·6		59·5		72·1		25·1	88·0	1st	53·9	29th	34·1
17	North Bihar	Bhagalpur	160	29·863		29·981	29·934	15th	29·766	9th	·168	69·2	83·3		60·2		71·8		23·1	86·2	3rd	51·6	30th	34·5
		Darbhanga	166	29·845	?	29·972	29·920	16th	29·740	9th	·180	67·9	82·5	+1·7	61·8	—0·2	72·2	+0·8	20·7	86·0	4th	53·8	29th & 30th.	32·2
		Muzaffarpur	178	29·857		29·996	29·938	15th	29·756	28th	·182	68·6	82·1		59·1		70·6		23·0	85·2	3rd & 4th.	50·8	29th	34·4
		Motihari	224	29·805?		29·985?	29·889	16th	29·701	9th	·188	68·6	82·0		56·7		69·4		25·3	86·0	3rd	48·9	29th & 30th.	37·1
		Chapra	181	29·838		29·981	29·915	16th	29·733	9th	·182	65·8	84·5‡		59·0		72·2‡		25·5	87·3	1st	51·3	30th	36·0
18	N.-W. P., East	Benares	267	29·746	—·024	29·981	29·808	15th	29·648	9th	·160	65·9	83·3	+1·4	57·4	+1·9	70·4	+1·7	25·9	87·7	1st	51·0	30th	36·7
		Allahabad	309	29·707	—·023	29·984	29·769	16th	29·599	9th	·170	66·7	84·8	+2·7	56·6	+2·2	70·7	+2·5	28·2	88·6	1st	50·4	30th	38·2
23	N.-W. P. (East Submontane).	Gorakhpur	256	29·758	—·011	29·983	29·835	16th	29·642	9th	·193	67·1	82·6	+1·0	59·6	+2·1	71·1	+1·6	23·0	86·4	7th	52·1	29th	31·2
19	South Oudh	Lucknow	368	29·634	?	29·978	29·715	16th	29·526	9th	·189	63·9	85·8	+2·9	55·4	+3·6	70·6	+3·3	30·4	90·2	1st	45·2	30th	45·1
20	North Oudh	Bahraich	403	29·602	—·018	29·983	29·690	16th	29·491	9th	·199	66·1	84·6	+2·0	56·7	0	70·7	+1·0	27·9	88·6	8th	47·0	29th	41·5
21	N.-W. Provinces (Central).	Cawnpore	416	29·596	—·020	29·986	29·656	16th	29·489	9th	·167	64·4	85·7	+2·7	55·0	?	70·4	?	30·7	89·3	1st & 10th.	46·5	30th	42·8
		Mainpuri	516	29·487	—·019	29·987	29·558	16th	29·369	9th	·189	63·0	85·4	?	54·9	?	70·2	?	30·5	89·3	2nd & 3rd.	46·6	30th	42·7

* Mean of 24 days. ‡ Mean of 22 days.

—continued.

n India, Burma, etc., in November, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind Resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 30th November 1900.	Normal rainfall for period, 1st October to 30th November.	Variation from normal of period, 1st October to 30th November.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
27							2	1	N 72° W	0·5	0·6			69	·493	1·5	0	0·85	− 0·85	0	0·52	− 0·52	0·25	4·34	− 4·09	0	Bankura	Central Bengal	11
7	1						9	13	N 61° W	0·8				73	·504	1·2	0	0·65	− 0·65	0	0·50	− 0·50	0·99	3·81	− 2·82	0	Raniganj.		
14	12	2					1	1	N 1° W	1·2	1·2	1·9	−37	73	·548	1·1	0	0·88	− 0·88	0	0·67	− 0·67	0·15	4·28	− 4·13	0	Burdwan.		
10	7	1	1			2	1	8	N 27° W	0·6	0·7			73	·507	1·0	0	0·60	− 0·60	0	0·37	− 0·37	1·62	4·59	− 2·97	0	Naya Dumka		
27	2							1	N 18° W	0·4	0·4	1·7	−76	80	·582	0·7	0	0·63	− 0·63	0	0·56	− 0·56	0·49	4·39	− 3·90	0	Berhampore.		
7	17	4					1	1	N 3° E	2·1	2·1			78	·584	0·2†	0	0·53	− 0·53	0	0·31	− 0·31	2·51	4·42	− 1·91	0	Rampur Boalia.		
	6	4	1	1			7	11	N 32° W	1·0	0·9			82	·584	0	0	0·42	− 0·42	0	0·20	− 0·20	0·91	4·62	− 3·71	0	Malda.		
														78	·582	0	0	0·65	− 0·65	0	0·64	− 0·64	2·76	4·38	− 1·62	0	Bogra.		
	8	12				2	6	2	N 1° W	2·7	3·1			82	·562	1·2	0	0·23	− 0·23	0	0·08	− 0·08	0·45	4·63	− 4·18	0	Dinajpur	North Bengal.	12
6		10	6	1	2	3	1	1	N 73° E	1·8	1·9			87	·601	0·1	0	0·11	− 0·11	0	0·13	− 0·13	1·98	5·57	3·59	0	Rangpur.		
	9	6	3	1		1	2	8	N 1° W	0·8	1·0			85	·547	0	0	0·34	− 0·34	0	0·16	− 0·16	0·51	5·48	− 4·97	0	Jalpaiguri.		
19		3	5	3					E	0·4	0·4			87	·564	0·5	0			0	0·07	− 0·07	1·17	6·05	− 4·88	0	Cooch Behar		
19	2	1				1	3	4	N 50° W	?		1·2	?	92	·562	0·3	0	0·19	− 0·19	0	0·08	− 0·08	1·33	3·65	− 2·32	0	Purnea	North Bihar.	17
6	9	1				2	3	9	N 34° W	1·4				79	·553	1·3	0	1·73	− 1·73	0	1·32	− 1·32	3·36	7·45	− 4·09	0	Balasore	Orissa.	14
	10					0	1	19	N 31° W	4·5	4·3	5	−34	82	·645	3·2	0	2·73	− 2·73	0	3·23	− 3·23	7·42	12·42	− 5·00	0	False Point.		
24	1	1				1	3		N 72° W	0·8		1·7	−53	84	·608	1·3	0	1·88	− 1·88	0	1·73	− 1·73	8·72	7·37	+ 1·35	0	Cuttack.		
1	15							14	N 22° W	7·0	6·5					1·4	0	2·77	− 2·77	0·01	3·48	− 3·47	6·60	12·38	− 5·78	0·01	Puri.		
																				0	0·23	−0·23					V.—Gangetic Plain and Chota Nagpur.		
11			1	1		1	13	3	N 86° W	5·2	4·6	4·3	+ 7	?	?	1·7	0	0·69	− 0·69	0	0·29	− 0·29	3·45	3·70	− 0·25	0	Hazaribagh.	Chota Nagpur.	15
12	2	3	1	1			4	7	N 32° W	2·7	3·1			67	·432	1·9	0	0·80	− 0·80	0	0·43	− 0·43	2·49	3·38	− 0·89	0	Ranchi.		
21		1	2		6				S 31° E	1·1	1·3			75	·401	0·4	0	0·76	− 0·76	0	0·37	− 0·37	1·54	2·87	− 1·33	0	Daltonganj.		
9		1					8	12	N 61° W	0·8				65	·449	0·8	0			0			1·04			0	Purulia.		
22			1			2	4	1	S 79° W	0·8	0·7			77	·500	1·2	0	0·92	− 0·92	0	0·45	− 0·45	1·67	2·17	− 1·50	0	Chaibassa.		
7					20	3			S 5° W	3·7	3·3	1·2	+175	72	·474	1·4	0	0·53	− 0·53	0	0·38	− 0·38	1·78	2·65	− 0·87	0	Gaya	South Bihar.	16
2					13	15			S 25° W	2·6	3·0			74	·499	1·0§	0	0·54	− 0·54	0	0·28	− 0·28	3·42	2·91	+ 0·51	0	Dehri.		
3	1		1	2	1	8	8	6	S 79° W	1·5	1·8	1·5	+20	73	·509	0·4	0	0·34	− 0·34	0	0·17	− 0·17	1·01	3·42	− 2·41	0	Patna.		
9					1	8	12		S 69° W	1·1	1·1			79	·512	0·5	0	0·46	− 0·46	0	0·20	− 0·20	1·26	3·19	− 1·93	0	Arrah.		
4				1	6	5	14		S 60° W	3·0	2·8			69	·487	0·9	0	0·42	− 0·42	0	0·46	− 0·46	1·68	3·72	− 2·04	0	Buxar.		
17	1	1			3	5	2	1	S 56° W	0·8	0·8			75	·542	0·9	0	0·26	− 0·26	0	0·21	− 0·21	5·28	3·01	+ 2·27	0	Bhagalpur	North Bihar.	17
8	3	2	1	2	2	2	6	4	N 72° W	1·6	·	1·8	−11	83	·565	0·5	0	0·19	− 0·19	0	0·07	− 0·07	0·90	2·91	− 2·01	0	Darbhanga.		
29							1		W	0·4	0·2			80	·562	0·1§	0	0·40	− 0·40	0	0·17	− 0·17	2·64	3·28	− 0·64	0	Muzaffarpur		
1	1	9	3	5	2	2	3	4	N 63° E	1·0				85	·599	0·3	0	0·20	− 0·20	0	0·13	− 0·13	2·32	3·52	− 1·20	0	Motihari.		
17					2	6	3	2	S 61° W	0·9	1·1			80	·513	1·1	0	0·42	− 0·42	0	0·38	− 0·38	0·95	3·46	− 2·51	0	Chapra.		
21						2	5	2	W	1·2	1·4	2·1	−33	76	·479	1·1	0	0·82	− 0·82	0	0·36	− 0·36	6·15	2·66	+ 3·49	0	Benares	N.-W. P., East.	18
7			1	1	1	3	11	6	N 89° W	2·7	3·1	2·0	+55	72	·481	1·5	0	0·45	− 0·45	0	0·17	− 0·17	0·74	2·00	− 1·26	0	Allahabad.		
2	3	7	2	1	2	2	2	9	N 12° W	1·1		0·9	+22	79	·527	1·2	0	0·18	− 0·18	0	0·10	− 0·10	6·18	3·87	+ 2·31	0	Gorakhpur	N.-W. P. (East Submontane).	23
12	4	1	1	1	1	1	9		N 74° W	1·1	1·2	1·4	−14	70	·424	1·8	0	0·09	− 0·09	0	0·05	− 0·05	0	0·88	− 0·88	0	Lucknow	South Oudh.	19
18	1	1	4				4	2	N 13° W	1·3	1·2			86	·547	0·7	0			0	0	0	0·01	1·69	− 1·68	0	Bahraich	North Oudh	20
20		1				4	4	1	S 78° W	0·9				69	·423	0·6	0			0	0·15	− 0·15	0	1·52	− 1·52	0	Cawnpore	N.-W. Provinces (Central).	21
21							9		W	0·9	1·0			67	·393	2·5	0			0	0	0	0	0·82	− 0·82	0	Mainpuri.		

† Mean of 28 days.

§ Mean of 29 days.

Tab

Abstract of Observations taken at 8 A.M. at 220 Statio

Number of district.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	VI.—Upper Sub-Himalayas				**-·019**								**82·2**	**+1·7**	**54·3**	**+4·6**	**68·3**	**+3·2**	**28·0**					**42·5**
24	N.-W. Provinces, (West Submontane).	Bareilly	569	29·425	-·018	29·986	29·521	16th	29·317	9th	·204	62·7	83·2	+2·3	55·3	+3·1	69·3	+2·7	27·9	86·9	1st	46·2	29th	40·7
		Dehra Dun	2,233	27·745	-·030	30·012	27·832	2nd	27·646	9th	·186	58·9	77·3	+3·1	53·2	+1·8	65·3	+2·5	24·1	80·5	2nd	46·5	28th	34·0
		Roorkee	887	29·101	-·020	30·006	29·190	16th	28·986	9th	·204	57·9	81·3	+0·9	51·6	+2·4	66·5	+1·7	29·7	84·8	4th	42·0	29th	42·8
22	N.-W. P., West	Meerut	738	29·244	-·028	29·991	29·322	16th	29·130	9th	·192	58·4	83·4	+2·4	53·7	+4·1	68·6	+3·3	29·7	87·5	4th	44·7	29th	42·8
26	South-East Punjab.	Delhi	718	29·273	-·025	29·987	29·335	3rd	29·175	9th	·160	64·3	83·5	+0·5	60·0	+4·6	71·8	+2·6	23·5	87·7	2nd	48·6	30th	39·1
28	Central Punjab	Lahore	702	29·294	-·022	30·005	29·383	22nd	29·182	9th	·201	6[illegible]·6	85·4	+4·1	53·8	+7·6	69·6	+5·9	31·6	92·1	7th	44·0	28th & 29th	48·1
27	South Punjab	Sirsa	662	29·343	-·012	30·002	29·405	2nd	29·255	9th	·150	63·6	86·4	+2·1	55·6	+7·6	71·0	+4·9	30·8	93·3	7th	47·1	29th	46·2
		Patiala	818	29·182		30·008	29·256	16th	29·050	9th	·206	61·9	82·0		53·7		67·9		28·3	86·7	11th	43·0	30th	43·7
29	Punjab (Submontane).	Ludhiana	812	29·181	-·015	30·006	29·254	2nd	29·077	9th	·177	59·6	81·4	+1·0	55·3	+5·3	68·4	+3·2	26·1	86·1	4 days	45·1	29th	41·0
		Sialkot	830	29·162	-·009	30·007	29·241	16th & 22nd	29·052	9th	·189	60·3	82·9	+2·3	55·4	+6·9	69·2	+4·6	27·5	89·1	2nd & 6th.	43·1	29th	46·0
		Umballa	892	29·099	-·011	30·014	29·171	22nd	28·978	9th	·193	56·2	80·3*	-1·5*	52·7*	+2·3*	66·5*	+0·4	27·6	86·0	6th	44·0	29th	42·0
31	North Punjab	Rawalpindi	1,676	28·313	-·019	30·051	28·398	2nd	28·213	9th	·185	55·6	79·7	+3·0	51·1	+9·0†	65·4	+6·0†	28·6	87·1	5th	43·0	29th	44·1
	VII.—Indus Valley and North-West Rajputana.				**-·028**								**87·7**	**+3·1**	**57·6**	**+5·2**	**72·7**	**+4·2**	**30·1**					**47·0**
31	North Punjab	Peshawar	1,110	28·919	-·024	30·076	29·035	22nd	28·820	9th	·215	56·8	78·7	+1·7	50·2	+6·1	64·5	+3·9	28·5	87·1	7th	38·9	30th	48·2
32	West Punjab	Khushab	612	29·397	?	30·013	29·495	22nd	29·283	9th	·212	61·2	84·9	+2·2	54·7	+5·1?	69·8	+3·7	30·2	94·3	6th	42·9	29th	51·4
		Montgomery	558	29·448	-·026	30·001	29·536	22nd	29·347	9th	·189	63·9	85·8	?	54·7	+3·3?	70·3	?	31·1	95·5	7th	43·5	29th	52·0
		D. I. Khan	594	29·438	-·031	30·010	29·547	22nd	29·323	9th	·224	61·1	84·4	+2·0	53·8	+6·9	69·1	+4·5	30·6	92·3	6th & 7th.	42·6	29th	49·7
		Mooltan	420	29·594	-·036	30·006	29·715	22nd	29·483	10th	·232	63·0	87·1	+3·0	56·7	+5·1	71·9	+4·1	30·4	96·8	7th	48·9	28th	47·9
47	Sind	Jacobabad	186	29·821	-·040	29·977	29·938	22nd	29·732	10th	·206	65·1	91·3	+5·4	57·1	+7·7	74·2	+6·6	34·2	99·5	7th	49·0	27th & 29th.	50·5
		Hyderabad	96	29·919	-·023	29·971	30·013	23rd	29·849	20th	·164	69·9	91·1	+3·9	62·8	+3·6	76·9	+3·8	28·3	100·1	5th & 6th.	55·0	30th	45·1
		Kurrachee	30	30·010	-·014	29·992	30·087	23rd	29·955	10th	·132	71·8	90·8	+2·0	64·0	+2·8	77·4	+2·4	26·8	99·9	6th	59·2	13th & 28th.	40·7
51	West Rajputana	Bikaner	771	29·231	?	29·998	29·305	23rd	29·160	10th	·145	68·9	8[illegible]·7	+3·8	61·5	+4·3	74·6	+4·1	26·2	97·1	6th	52·6	30th	44·5
		Pachpadra	380	29·644		29·997	29·770	23rd	29·522	20th	·248	67·8	93·2		58·2		75·7		35·0	99·5	1st & 7th.	53·1	28th & 29th.	46·4
		Jodhpur	762	29·212		30·004	29·278	23rd	29·121	20th	·157	68·7	90·2		60·2		75·2		30·0	97·1	1st	56·2	28th	40·9
	VIII.—East Rajputana, Central India and Gujarat.				**-·013**								**89·4**	**+3·5**	**60·8**	**+4·5**	**75·3**	**+3·9**	**28·1**					**39·0**
50	East Rajputana	Jaipur	1,431	28·587	-·013	30·024	28·648	3rd	28·510	10th	·138	68·0	88·2	+3·6	58·6	+5·6	73·4	+4·6	29·6	94·2	2nd & 7th.	49·0	29th	45·2
		Kotah	819	29·192			29·231	4th & 15th.	29·122	10th	·109	65·8	88·5		62·0		75·3		26·5	93·5	2nd	56·0	26th	37·5
		Sambhar	1,254	28·756	-·013	30·026	28·807	5th	28·682	10th	·125	63·3	86·4	+3·9	55·9	+4·0?	71·2	+4·0?	30·5	93·4	3rd	48·4	29th	45·0
		Ajmer	1,611	28·401	-·024	30·043	28·451	2nd	28·333	9th	·118	62·3	86·1	+3·0	55·9	+6·5	71·0	+4·8	30·2	92·4	3rd	49·8	29th	42·6
		Udaipur	1,925	28·069		30·015	28·135	5th	28·008	20th	·127	64·3	85·1		55·2		70·2		29·9	91·5	1st	50·2	29th	41·3
		Deesa	466	29·543?	-·017	29·977?	29·618	5th	29·478	20th	·140	72·8	94·1	+3·7	61·5	+4·7	77·8	+4·2	32·6	99·6	1st	54·6	29th	45·0
46	Kathiawar and Cutch.	Bhuj	395	29·028	+·007	29·985	29·699	5th	29·548	20th	·151	75·9	92·0	+3·0	65·5	+2·8	78·8	+2·9	26·5	97·3	7th	62·0	20th	35·3
		Jamnagar	61	29·949		29·956	30·020	5th	29·890	20th	·130	74·1	91·2		64·3		77·7		26·9	99·1	1st	60·2	13th	38·9
		Rajkot	428	29·575	-·011	29·967	29·646	5th	29·523	20th	·123	74·5	93·6	+3·7	63·3	+4·8	78·4	+4·3	30·3	97·9	1st & 2nd.	57·0	27th	40·9
		Veraval		29·961	-·032	29·921	30·024	1st	29·917	10th	·107	76·9	89·9	+1·5	69·0	+1·3	79·4	+1·4	20·9	98·1	3rd	63·3	30th	34·8
		Bhavnagar Para.	35	29·960	-·024	29·941	30·034	5th	29·911	18th	·123	73·0	93·5	+4·2	63·3	?	78·5	?	30·2	97·6	1st	57·7	27th	39·9
49	Central India	Nowgong	757	29·261	?	30·012	29·313	3rd	29·168	9th	·145	62·9	82·5	?	55·1	+3·2	68·8	?	27·4	87·0	2nd	50·5	29th & 30th.	36·5
		Indore	1,823	28·196	+·009	30·005	28·255	5th	28·141	10th	·114	71·5	85·9	+4·1	57·1	+3·3	71·5	+3·7	28·8	89·3	1st & 2nd.	53·6	4 days	35·7
		Neemuch	1,630	28·399	-·018	30·034	28·459	5th	28·339	10th	·120	68·1	86·5	+3·1	57·4	+3·2	72·0	+3·2	29·1	91·0	1st & 3rd.	52·6	14th & 29th.	38·

* Mean of 28 days.

† Me n of 26 days.

I—*continued.*

in India, Burma, etc., in November 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 30th November 1900	Normal rainfall for period from 1st October to 30th November	Variation from normal of period, 1st October to 30th November.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				0	0·15	−0·15					VI.—Upper Sub-Himalayas.		
30									Calm	0·3	0·3	1·7	−82	75	·434	0·7	0	0·27	−0·27	0	0·13	−0·13	0	1·28	−1·28	0	Bareilly	N.-W. Provinces (West Submontane).	24
27	1	2							N 31° E	0·5		1·7	−71	70	·356	1·9	0	0·60	−0·60	0	0·37	−0·37	0	1·36	−1·36	0	Dehra Dun.		
29								1	N 45° W	1·3		1·1	+18	78	·381	0·9	0	0·64	−0·64	0	0·16	−0·16	0·32	0·59	−0·27	0	Roorkee.		
24							6		W	0·6	0·6	1·3	−54	75	·374	0·3	0	0·36	−0·36	0	0·08	−0·08	0	0·50	−0·50	0	Meerut	N.-W. P., West.	22
10	2		1			1	11	5	N 70° W	0·7	0·7	2·3	−70	58	·354	1·3	0	0·18	−0·18	0·02	0·07	−0·05	0·16	0·15	+0·01	0·02	Delhi	South-East Punjab.	26
18	3		2	1	1		3	2	N 33° W	1·1		1·4	−21	75	·404	1·3	0	0·27	−0·27	0	0·10	−0·10	0·17	0·36	−0·19	0	Lahore	Central Punjab.	28
2		1		10	3	9		5	S 9° W	2·3	2·7	2·0	+35	66	·392	1·0	0	0·09	−0·09	0	0·01	−0·01	0	0·15	−0·15	0	Sirsa	South Punjab.	27
4	4	4	5	5		1	2	5	N 40° E	3·3†				68	·380	1·5	0			0			0			0	Patiala.		
22				3			4	1	S 61° W	1·3	1·2	0·8	+50	72	·373	2·0	0	0·36	−0·36	0	0·09	−0·09	0	0·49	−0·49	0	Ludhiana	Punjab (Submontane).	29
8	3	7	6	1			2	3	N 39° E	1·2		1·0	+20	68	·354	1·1	0	0·18	−0·18	0	0·09	−0·09	0·11	0·40	−0·29	0	Sialkot.		
20				4			2	4	W	1·6				87	·390	0·9	0			0	0·18	−0·18	0·10	0·49	−0·39	0	Umballa.		
30									Calm	0·4	0·4	1·1	−64	66	·302	0·5	0	0·36	−0·36	0	0·35	−0·35	0·59	0·90	−0·31	0	Rawalpindi.	North Punjab.	31
																				0·06	0·16	−0·10					VII.—Indus Valley and North-West Rajputana.		
26					3			1	S 19° W	1·1	1·2	2·1	−43	67	·316	3·5	0	0·64	−0·64	0·09	0·57	−0·48	0·14	0·68	−0·54	0·06	Peshawar	North Punjab.	31
12	1	8	3		1	4		1	N 55° E	3·2	3·7			55	·302	0·9	0	0·40	−0·40	0	0·33	−0·33	0·26	0·40	−0·14	0	Khushab	West Punjab.	32
7	2	3	5	9	2		1	1	S 73° E	3·9	3·4			52	·315	1·9	0	0·20	−0·20	0	0·07	−0·07	0	0·22	−0·22	0	Montgomery.		
23	2	1						4	N 18° W	0·7	0·7	0·7	0	63	·347	3·7	0	0·45	−0·45	0	0·21	−0·21	0·11	0·26	−0·15	0	D. I. Khan.		
18		8		2	1	1			N 66° E	1·0	1·2	1·5	−20	64	·376	1·5	0	0·09	−0·09	0	0·10	−0·10	0	0·10	−0·10	0	Mooltan.		
22	2		3				3		N	0·8	0·8	1·6	−50	62	·379	2·5	0	0	0	0·07	0·16	−0·09	0·07	0·16	−0·09	0·07	Jacobabad	Sind.	37
3	11	2	1	1	3	6		3	N 26° W	5·4	5·6	6·1	−8	53	·393	1·0	0	0·20	−0·20	0	0·06	−0·06	0	0·06	−0·06	0	Hyderabad.		
4	1	12	10	1		1	1		N 65° E	4·4	5·5	7·9	−30	63	·485	0·8	0	0·09	−0·09	0	0·09	−0·09	0	0·09	−0·09	0	Kurrachee.		
2	3	2	2	3	3	1	8	6	N 69° W	5·2		2·4	+117	61	·437	1·9	0			0·04	0·08	−0·04	0·28	0·18	+0·10	0·04	Bikaner	West Rajputana	51
	5	11	11	1				2	N 52° E	3·0	3·5	2·1	+67	47	·315	1·2	1			0·32	0	+0·32	0·32	0·05	+0·27	0·32	Pachpadra.		
21	2	5		1				1	N 33° E	1·4	1·3			51	·351	2·8	0			0·16	0·13	+0·03	0·16	0·26	−0·10	0·09	Jodhpur.		
																				0·05	0·27	−0·22					VIII.—East Rajputana, Central India and Gujarat.		
15	4	4	2	1			1	3	N 17° E	2·4		3·0	−20	55	·376	2·4	0	0·20	−0·20	0·02	0·24	−0·22	0·02	0·54	−0·52	0·02	Jaipur	East Rajputana.	50
22	1	1		2	1		1	2	N 23° W	1·5	1·8			62	·437	0·8	0			0	0·03	−0·03	0	0·53	−0·53	0	Kotah.		
27		1	1					1	N 38° E	1·9		3·4	−44	57	·330	2·1	0	0·30	−0·30	0·02	0·19	−0·17	0·02	0·36	−0·34	0·02	Sambhar.		
26	1	2						1	N 12° E	1·8		1·4	+29	74	·416	2·5	1	0·27	+0·73	0·40	0·19	+0·21	0·49	0·50	−0·01	0·40	Ajmer.		
29								1	N 45° W	0·2	0·2			58	·358	1·4	0			0·09			0·09			0·09	Udaipur.		
		9	18	3					N 81° E	6·8‡		7·5	−9	43	·342	1·3	0	0·18	−0·18	0	0·16	−0·16	0	0·51	−0·51	0	Deesa.		
	8		2		1	2	8		N 53° W	4·6		4·7	−2	61	·528	1·4	0			0	0·02	−0·02	0	0·37	−0·37	0	Bhuj	Kathiawar and Cutch.	43
	4	6	6	5	3	3	2	1	N 88° E	7·4	7·8			55	·467	0·7	0			0			0			0	Jamnagar.		
	15	4	9				2		N 29° E	4·4	4·4	4·9	−10	42	·364	1·2	0	0·18	−0·18	0	0·36	−0·36	0	0·81	−0·81	0	Rajkot.		
	12	12	1	3				2	N 27° E	4·3	5·1	5·0	+2	49	·449	1·8	0			0	0·87	−0·87	0	1·95	−1·95	0	Veraval.		
	2	2			1		6	19	N 48° W	3·2	3·3			46	·377	1·7	0			0	0·55	−0·55	0	0·90	−0·90	0	Bhavnagar Para.		
11	5		3		1	1	4	5	N 38° W	1·1	1·1	1·0	+10	73	·423	1·4	0	0·55	−0·55	0	0·25	−0·25	0	1·42	−1·42	0	Nowgong	Central India.	40
15	2	8			4	1			N 58° E	1·8		2·0	−9	59	·454	1·2	0	0·73	−0·73	0		−0·45	0	1·90	−1·90	0	Indore.		
15	1	3	10					1	N 71° E	3·6	3·2	7·5	−57	60	·414	1·9	1	0·18	+0·82	0·29	0·21	+0·08	0·29	0·70	−0·41	0·29	Neemuch.		

† Mean of 29 days. ‡ Mean of 21 days.

Table

Abstract of Observations taken at 8 A.M. at 220 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
45	Gujarat	Surat	39	29·946*	−·026*	29·928*	30·009	5th	29·908	10th	·101	75·3	95·5	+5·6	66·4	+4·1	81·0	+4·9	29·1	99·2	1st	61·5	11th	37·7
		Ahmedabad*	164	29·865	+·004?	29·979	29·945	5th	29·811	20th	·134	76·5	95·5	+4·6	68·3	+2·7	8[illegible]·9	+3·7	27·2	100·3	3rd	62·1	30th	38·2
22	N.-W. P., West	Agra	555	29·454	−·032?	29·994	29·510	16th	29·340	9th	·170	65·9	87·1	+3·1	60·0	+5·1	73·6	+4·1	27·1	91·0	4 days	53·4	29th	37·6
21	N.-W.P., Central	Jhansi	858	29·173	−·001	30·018	29·229	3rd	29·080	9th	·149	69·2	87·3	+3·2	63·5	+6·8	75·4	+5·0	23·8	91·2	1st & 7th.	59·1	29th	32·1
	IX.—Deccan				+·007								86·6	+3·1	59·9	+1·1	73·2	+2·1	26·7					35·2
38	Bombay (Deccan)	Belgaum	2,539	27·433	+·008	29·915	27·474	5th	27·387	9th & 10th.	·087	72·7	85·0	+3·4	62·5	+0·9	73·8	+2·2	22·5	87·3	29th & 30th.	56·9	9th	30·4
		Sholapur	1,590	28·407	+·011	29·967	28·459	22nd	28·355	9th	·104	74·0	89·7	+2·8	63·8	+1·6	76·8	+2·2	25·9	92·2	1st	56·1	9th	36·1
		Poona	1,840	28·159	0	29·982	28·215	1st	28·106	10th	·109	69·1	90·1	+4·9	59·5	−0·2	74·8	+2·4	30·6	93·0	30th	53·4	11th	39·6
		Bijapur	1,946	28·047	−·002	29·962	28·094	5th	27·982	10th	·112	72·2	89·2	+4·4	62·7	+2·1	76·0	+3·3	26·5	93·2	1st	54·6	10th	38·6
40	Khandesh	Malegaon	1,430	28·573	−·007	29·986	28·646	5th	28·522	10th	·124	71·4	90·9	+5·2	59·2	+2·4	75·1	+3·8	31·7	94·9	1st	53·5	11th	41·4
		Ahmednagar	2,152	27·870?	+·004	29·991?	27·915	5th	27·816	10th	·099	72·1	88·4	+3·7	?	?	?	?	?	90·9	1st	?	?	?
41	Berar	Akola	930	29·091	+·009	30·004	29·139	5th	29·023	9th	·116	68·1	89·3	+3·4	56·7	−0·2	73·0	+1·6	32·6	92·4	1st & 3rd	51·1	10th	41·3
		Amraoti	1,215	28·811	+·019	30·003	28·855	5th	28·742	9th	·113	74·1	88·4	+3·2	62·8	?	75·6	?	25·6	91·2	2nd	57·8	10th	33·4
42	Central Provinces (West).	Khandwa	1,044	28·970	+·008	30·005	29·035	5th	28·908	10th	·127	68·2	91·7	+6·4	57·2	+1·5	74·4	+4·0	34·5	95·7	1st	52·6	4th, 5th & 7th.	43·1
		Hoshangabad	1,006	29·033	+·016	30·034	29·095	5th	28·969	9th	·126	67·2	85·4	+2·0	57·5	+0·9	71·4	+1·5	27·9	88·7	2nd	54·3	7th, 10th & 16th.	34·4
		Nagpur	1,025	28·989	+·005	30·005	29·027	22nd	28·905	9th	·122	67·5	87·2	+3·2	59·8	+0·1	73·5	+1·7	27·4	91·1	1st	57·2	20th, 28th & 30th.	33·9
43	Central Provinces (Central).	Chanda	634	29·404	+·001?	30·007	29·441	5th	29·335	9th	·106	67·7	87·3	+2·9	59·0	−0·1	73·1	+1·4	28·3	90·2	5th	55·7	7th & 10th.	34·5
		Seoni	2,033	27·985	+·015	30·016	28·028	1st & 5th.	27·898	9th	·130	66·4	83·3	+2·7	55·3	+0·2	69·3	+1·5	28·0	86·8	1st	52·5	11th	34·3
		Jubbulpore	1,327	28·673	?	30·015	28·720	5th	28·587	9th	·133	61·3	82·8	+2·0	53·3	+1·0	68·1	+1·5	29·5	86·4	1st	49·9	27th	36·5
		Saugor	1,807	28·212	−·004?	30·011	28·260	5th	28·133	9th	·127	69·9	83·2	+2·5	61·1	+5·1	72·2	+3·8	22·1	86·4	1st	55·1	28th	31·3
49	Central India	Sutna	1,040	28·970	−·015	30·014	29·019	15th	28·877	9th	·142	61·0	81·9	+1·8	56·3	+3·5	69·1	+2·7	25·6	85·4	1st	52·3	29th	33·1
44	Central Provinces (East).	Raipur	970	29·047	+·005	30·001	29·090	22nd	28·959	9th	·131	68·3	83·9	+1·8	60·6	+0·4	72·3	+1·1	23·3	88·3	1st & 30th.	56·8	26th	31·5
		Sambalpur	486	29·549	?	30·003	29·593	22nd	29·465	9th	·128	68·6	84·4	+1·2	61·2	−1·2	72·8	0	23·2	89·6	5th	54·6	26th	35·0
39	Hyderabad (North).	Indur										71·6	85·5		59·7		72·6		25·8	88·7	5th	55·1	10th	33·6
		Bidar	2,165?	27·614?		29·715?	27·638	10th	27·595	18th	·043	74·7	84·6		48·0		66·3		36·6	87·7	5th	42·6	9th	45·1
53	Hyderabad (South).	Gulbarga	1,502	28·519?		29·991?	28·560	22nd	28·462	10th	·098	73·4	88·8		63·2		76·0		25·6	91·8	1st	56·8	11th	35·0
		Raichur	1,309	28·696	+·018	29·969	28·730	5th	28·634	10th	·096	76·0	88·6	+3·0	68·1	+0·8	78·4	+1·9	20·5	91·6	1st	61·2	2nd	30·4
		Hyderabad (Deccan).	1,690	28·310	+·021	29·980	28·344	22nd	28·244	9th	·100	70·5	85·9	+3·0	62·7	+0·6	74·3	+1·8	23·2	87·9	7th, 2nd, 18th & 29th.	57·3	8th, 10th & 11th.	30·6
		Secunderabad	1,787	28·214	?	29·983	28·249	5th	28·147	9th	·102	69·7	86·0	+3·1	62·7	+0·6	74·4	+1·9	23·3	88·6	1st	56·7	11th	31·9
		Hanumkonda	865	29·139		29·969	29·178	22nd & 23rd.	29·082	9th	·096	73·3	85·3		63·7		74·5		21·6	88·5	5th	59·2	8th & 29th.	29·3
	X.—West Coast				−·004								89·2	+2·4	73·8	+1·2	81·5	+1·8	15·5					22·9
37	Konkan	Bombay	37	29·947	−·006	29·924	30·019	1st	29·902	10th	·117	77·2	88·1	+1·6	74·4	+1·3	81·2	+1·5	13·7	92·5	5th	72·5	10th & 11th	20·0
		Ratnagiri	110	29·845	+·002	29·894	29·904	1st	29·796	10th	·108	77·8	93·9	+3·5	72·1	+2·2	83·0	+2·9	21·8	97·4	8th & 21st.	65·9	12th	31·5
		Mormugao	60	29·911?	−·012	29·906?	29·974	1st	29·862	10th	·112	76·2	89·1	+2·1	74·1	+1·2	81·6	+1·7	15·0	92·0	8th	68·8	11th	23·2
		Goa	199	29·752	−·003	29·890	29·832	1st	29·711	10th	·121	77·2	88·8	+1·1	72·7	+0·4	80·7	+0·8	16·1	91·5	8th	69·0	9th & 10th.	22·5
		Karwar	44	29·915	+·002	29·892	29·985	1st	29·867	10th	·118	72·3	90·5	+3·6	69·6	+0·1	80·1	+1·9	20·9	93·3	24th	64·0	11th	29·3
23	Malabar	Cochin	11	29·933	−·011	29·871	29·979	5th	29·885	10th	·094	79·4	90·6	+3·7?	76·1	+1·9	83·4	+2·8?	14·5	93·0	8th, 16th & 26th.	71·7	1st	21·3
		Calicut	27	29·915	−·013	29·871	29·973	5th	29·867	17th	·106	80·6	88·8	+1·7	75·0	+1·9	81·9	+1·8	13·8	90·8	10th	69·0	2nd	21·8
		Mangalore	65	29·887	−·006	29·884	29·939	1st	29·835	10th	·104	79·4	90·1	+2·9	74·4	+1·6	82·3	+2·3	15·7	94·3	23rd	69·9	2nd	24·4
		Trivandrum	198	29·723	+·011	29·854	29·765	1st	29·678	21st	·087	77·7	83·1	+0·5	75·5	?	79·3	?	7·6	85·5	25th	73·5	26th	12·0

* Mean of 29 days.
‡ „ of 26 „

—continued.

in India, Burma, etc., in November, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 30th November 1900.	Normal rainfall for period, 1st October to 30th November.	Variation from normal of period, 1st October to 30th November.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
8	3	5	12	2					N 74° E	3·7	6·1	5·9	+ 3	52	·459	0·8	0	0·55	−0·55	0	0·17	−0·17	0	1·70	− 1·70	0	Surat	Gujarat.	45
	3	10	14	2					N 69° E	2·6				45	·407	1·6	0			0	0·44	−0·44	0	1·33	− 1·33	0	Ahmedabad		
6		2		1		8		13	N 72° W	2·2	3·6	2·5	+ 44	58	·368	1·0	0	0·18	−0·18	0	0·05	−0·05	0	0·52	− 0·52	0	Agra	N.-W. P., West	22
17						5	7	1	S 75° W	1·2		1·8	− 33	53	381	0·7	0	0·36	−0·36	0	0·12	−0·12	0·03	0·82	− 0·79	0	Jhansi	N.-W.P., Central.	21
																				0·15	0·90	−0·74					IX.—Deccan.		
4		4	14	7	1				S 82° E	8·0‡		11·7	− 32	54	·433	1·9	0	2·73	− 2·73	0	2·11	− 2·11	2·17	8·50	− 6·33	0	Belgaum	Bombay (Deccan).	38
1		7	6	16					S 74° E	9·4	6·8	7·7	− 12	48	·403	2·1	0	1·73	− 1·73	0·05	1·15	− 1·10	1·74	6·25	− 4·51	0·05	Sholapur.		
12		3	5	5		1		3	S 29° E	6·3	7·1	5·8	+ 22	53	·378	2·1	0	2·64	− 2·64	0	1·31	− 1·31	2·40	6·11	− 3·71	0	Poona.		
16			6	7	1				S 62° E	1·8	1·8			59	·464	1·4	2	2·20	− 0·20	0·40	1·14	− 0·74	1·17	4·66	− 3·49	0·30	Bijapur.		
	5	5	4	3	3		8	2	N 2° E	3·7	4·3	4·0	+ 8	42	·328	0·7	0	1·75	− 1·75	0	0·64	− 0·64	0	3·48	− 3·48	0	Malegaon	Khandesh.	40
7	3	2	2	8	3	1		4	S 69° E	7·4	9·0			56	·442	1·2	0			0	0·65	− 0·65	0·01	3·04	− 3·03	0	Ahmednagar.		
19		6	2	3					N 62° E	2·3	2·5	3·4	− 26	53	·361	1·2	0	1·18	− 1·18	0	0·75	− 0·75	0	4·25	− 4·25	0	Akola	Berar.	41
	2	19	6	2			1		N 55° E	9·3	8·3	3·0	+177	48	·406	1·3	0	1·27	− 1·27	0	0·62	− 0·62	0	3·50	− 3·50	0	Amraoti.		
23			3	4					S 64° E	2·4		2·6	− 8	55	·377	1·0	0	1·09	− 1·09	0	0·31	− 0·31	0	2·04	− 2·04	0	Khandwa	Central Provinces (West).	42
		27		2		1			N 49° E	3·2	3·3	1·9	+ 74	63	·420	0·1	0	0·91	− 0·91	0	0·61	− 0·61	0	2·43	− 2·43	0	Hoshangabad.		
27		1	2						N 73° E	3·8		4·0	− 5	60	·402	1·7	0	1·09	− 1·09	0	0·90	− 0·90	0	3·85	− 3·85	0	Nagpur.		
24	4		1					1	N 3° E	1·4		1·8	− 22	72	·495	1·0	0			0	1·12	− 1·12	0	3·36	− 3·36	0	Chanda	Central Provinces (Central).	43
	8	8		1	1		5	7	N 12° W	1·7		2·6	− 35	70	·454	1·0	0	0·82	− 0·82	0	0·60	− 0·60	0	2·96	− 2·96	0	Seoni.		
2			3	15	9	1			S 32° E	1·8		1·8	0	78	·424	0·5	0	1·27	− 1·27	0	0·50	− 0·50	0·76	2·57	− 1·81	0	Jubbulpore.		
1	1	3	5	9	4	4	2	1	S 41° E	1·6	1·8	2·3	− 22	47	·347	0·8	0	0·55	− 0·55	0	0·45	− 0·45	0	1·90	− 1·90	0	Saugor.		
4	7	1					8	10	N 44° W	2·4	2·6	3·2	− 19	70	·417	0·7	0	0·73	− 0·73	0	0·30	− 0·30	1·76	2·67	− 0·91	0	Sutna	Central India	49
26	2	1	1						N 33° E	2·4	2·2	3·3	− 33	67	·464	0·9	0	1·82	− 1·32	0	0·52	− 0·52	6·14	2·81	+ 3·33	0	Raipur	Central Provinces (East).	44
	13	12	2					3	N 19° E	1·8	1·8	1·4	+ 29	73	·519	1·7	0			0	0·65	− 0·65	0·99	2·69	− 1·70	0	Sambalpur.		
19	1	2		7				1	S 72° E	4·8	4·6			68	·523	1·7	1			0·11	1·06	− 0·95	0·18	3·69	− 3·51	0·11	Indur.	Hyderabad (North).	39
		8	11	7	2			2	N 89° E	6·5†	5·4†			58	·503	2·5¶	0			0	1·15	− 1·15	0·02	4·80	− 4·78	0	Bidar.		
7	1	4	14	4					N 87° E	9·2	8·8			57	·476	1·7	1			1·80	0·64	+ 1·16	1·85	3·70	− 1·85	1·80	Gulbarga	Hyderabad (South).	53
1	2	3	4	16		3		1	S 59° E	7·8	7·6			62	·559	3·2	1			0·15	0·80	− 0·65	0·34	5·58	− 5·24	0·15	Raichur.		
19		1	5	4	1				S 70° E	3·7	3·6			68	·515	1·4	2			0·36	1·76	− 1·40	1·46	4·84	− 3·38	0·23	Hyderabad (Deccan).		
3		18	9						N 59° E	4·7		3·5	+ 34	71	·515	1·8	2			0·83	1·76	− 0·93	2·85	4·84	− 1·99	0·64	Secunderabad.		
16	2			4	5			3	S 11° E	4·6	3·9			69	·574	2·5	1			0·17			2·09			0·14	Hanumkonda.		
																				1·10	3·07	−1·97					X.—West Coast.		
		14	15	1					N 70° E	8·2		9·9	− 17	73	·685	1·8	0	1·09	− 1·09	0	0·66	−0·66	0	3·13	− 3·13	0	Bombay	Konkan.	37
11		1	11	7					S 76° E	4·0	4·0	9·0	− 56	54	·540	1·3	0	1·18	− 1·18	0	0·50	− 0·50	0·08	4·78	− 4·70	0	Ratnagiri.		
1		2	20	7					S 82° E	6·9				77	·694	1·4	0			0·01	1·24	− 1·23	0·66	8·25	− 7·59	0·01	Mormugao.		
		6	24						N 82° E					69	·653	1·9	0			0·08	1·45	− 1·37	0·24	7·42	− 7·18	0·08	Goa.		
7	1	8	13	1					N 73° E	2·8				81	·642	1·3	0	3·82	− 3·82	0	2·63	− 2·63	0·65	10·31	− 9·66	0	Karwar.		
1	18	10		1					N 17° E	4·2				81	·825	4·2	4	10·09	− 6·09	3·43	6·77	− 3·34	12·13	20·78	− 8·65	2·31	Cochin	Malabar.	33
3	2	8	13	4					N 78° E	5·4	6·8			79	·805	4·2	1	8·44	− 7·44	1·35	5·06	− 3·71	9·39	15·23	− 5·84	1·32	Calicut.		
4		3	14	9					S 79° E	2·0		3·0	−33	73	·737	4·5	2	5·10	−3·10	0·43	3·09	− 2·66	2·28	10·91	− 8·63	0·24	Mangalore.		
16	6		3	1		1		3	N 8° E	3·4				87	·835	6·8	9			4·64	6·24	− 1·60	12·69	17·00	− 4·01	1·22	Trivandrum.		

¶ Mean of 29 days. † Mean of 28 days.

Tabl

Abstract of Observations taken at 8 A.M. at 220 Station

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	XI.—South India				+·013								85·9	+1·3	69·4	+0·4	77·7	+0·8	16·5					26·2
57	Madras (South)	Pamban	37	29·917		29·881	29·966	28th	29·878	17th	·088	79·2	84·8		75·4		80·1		9·4	88·3	5th, 6th & 11th	71·7	19th	16·6
		Tinnevelly	168	29·804	+ ·003	29·904	29·840	1st	29·756	10th	·084	78·2	88·1	−0·6	74·6	0	81·4	−0·3	13·5	94·2	4th & 6th.	69·9	21st	24·3
		Madura	447	29·516	+·014	29·904	29·556	1st	29·473	17th & 30th.	·083	78·6	88·0	+0·7	73·3	+1·0	80·7	+0·9	14·7	91·9	6th & 14th.	69·6	2nd	22·3
		Periya Kulam		29·024			29·053	1st, 13th & 22nd.	28·974	9th	·079	75·3	86·8		70·4		78·6		16·4	90·8	5th	64·1	2nd	26·7
34	Madras (South Central).	Salem	940	29·055	+·016	29·947	29·097	1st	28·997	9th	·100	76·5	88·3	+1·4	69·5	+1·5	78·9	+1·5	18·8	92·2	5th & 6th.	62·4	2nd	29·8
		Coimbatore	1,348	28·627	+·019	29·935	28·672	1st	28·571	17th	·101	74·4	86·2	+0·3	69·0	−0·1	77·6	+0·1	17·2	90·4	5th, 6th & 17th.	63·3	1st & 2nd.	27·1
35	Coorg	Mercara	3,781	26·251	0		26·286	15th	26·193	9th	·093	65·6	77·4	+2·4	62·2	+1·9	69·8	+2·2	15·2	81·0	30th	58·7	26th	22·3
36	Mysore	Chitaldroog	2,405	27·578	−·009	29·916	27·613	1st & 5th.	27·526	10th	·087	73·9	85·7	+4·1	64·9	+0·9	75·3	+2·5	20·8	89·6	7th	58·4	28th	31·2
		Bangalore	3,021	26·990	+·005	29·939	27·024	5th	26·921	3rd	·103	68·3	80·8	+2·3	62·5	+0·5	71·7	+1·4	18·3	84·3	29th	55·4	2nd	28·9
		Hassan	3,091	26·924		29·935	26·954	1st	26·877	9th	·077	71·0	80·8		59·8		70·3		21·0	83·4	8th	54·3	2nd	29·1
		Mysore	2,518	27·478	−·001	29·928	27·517	1st	27·422	9th	·095	72·8	83·5	+1·3	64·3	−0·3	73·9	+0·5	19·2	88·1	29th	58·4	2nd	29·7
56	Madras (East Coast, South).	Negapatam	31	29·943	+·021P	29·903	29·989	4th	29·874	17th	·115	79·3	84·4	+0·7	75·0	+1·1	79·7	+0·9	9·4	89·7	4th & 5th.	69·9	2nd	19·8
		Cuddalore	12	29·968	+·007	29·909	29·995	12th	29·921	10th	·074	77·0	84·6	−0·3	72·8	+0·8	78·7	+0·3	11·8	87·6	6th	67·7	2nd	19·9
		Trichinopoly	255	29·721	+·015	29·913	29·768	7th	29·669	9th	·099	77·9	88·2	+1·5	73·1	+1·4	80·6	+1·5	15·1	93·5	6th	66·9	2nd	26·6
		Madras	22	29·966	+·019	29·919	29·994	22nd	29·909	9th	·085	77·7	85·5	+0·5	71·3	−1·0	78·4	−0·3	14·2	88·0	7th, 8th & 16th.	66·0	11th	22·0
		Vellore	707	29·281		29·943	29·317	27th	29·227	8th	·090	73·8	85·6		67·4		76·5		18·5	90·4	6th	57·9	1st	32·5
55	Madras (East Coast, Central).	Nellore	71	29·935	+·020	29·940	29·966	13th	29·875	9th	·091	77·5	86·2	−0·2	71·9	+0·1	79·1	−0·1	14·3	90·8	7th	68·1	27th & 28th.	22·7
		Masulipatam	15	29·999	+·029	29·949	30·032	13th	29·929	9th	·103	77·1	86·2	+1·5	71·5	+0·1	78·9	+0·8	14·7	89·0	1st	66·2	10th	22·8
54	Madras (Central)	Cuddapah	433	29·564	+·005	29·942	29·596	29th	29·504	10th	·092	78·3	90·7	+4·1	70·5	+1·2	80·6	+2·7	20·2	94·7	8th	62·9	28th	31·8
		Kurnool	924	29·066	P	29·954	29·108	22nd	28·994	9th	·114	72·6	89·6	+3·0	64·8	+0·6	77·3	+1·8	24·8	92·7	1st & 2nd.	57·8	2nd	34·9
		Bellary	1,475	28·517	+·015	29·956	28·549	5th	28·464	9th	·085	74·8	89·9	+3·6	66·8	+1·1	78·4	+2·4	23·1	93·7	7th	60·1	2nd	33·6
52	Madras (East Coast, North).	Cocanada	26	29·983	+·028	29·944	30·020	13th	29·910	9th	·110	76·2	83·7	+0·5	70·7	0	77·2	+0·3	13·0	88·1	1st	65·0	10th	23·1
		Waltair (Vizag.)	226	29·783	+·018	29·953	29·821	15th	29·705	9th	·116	77·3	84·1	−0·3	71·7	−0·2	77·9	−0·3	12·4	87·9	1st	67·4	10th	20·5
		Gopalpur	21	30·001	+·003	29·962	30·048	16th	29·901	9th	·147	72·7	83·7	+0·4	65·2	−1·9	74·5	−0·8	18·5	87·3	1st & 5th.	60·1	30th	27·2
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·875			25·960	2nd, 3rd & 5th.	25·780	29th	·180	57·7	74·8		33·2		54·0		41·6	87·0	7th	26·0	26th	61·0
		Pishin											66·1		37·6		51·9		28·5	79·0	6th	28·0	27th & 28th.	51·0
		Quetta	5,502	24·756	−·008		24·866	5th	24·695	18th	·171	46·1	65·5	+1·7	39·2	+8·3	52·4	+5·0	26·3	78·7	6th	29·3	27th	49·4
		Kalat										50·7	65·1		33·6		49·4		31·5	79·5	6th	22·3	27th	57·2
		Chaman	4,311	25·832	+·004P		25·913	5th	25·760	11th	·153	55·1	68·8	−0·9	48·6	+3·9	58·7	+1·5	20·2	82·8	5th	35·6	27th	47·2
30	Punjab	Leh	11,503	19·811	+·043		20·001	6th	19·667	26th	·334	31·2	50·2	+2·4	24·0	+3·9	37·1	+3·2	26·2	60·6	15th	14·5	29th	46·1
		Srinagar	5,204	25·012	−·020P		25·139	5th	24·907	26th	·232	40·6	63·5	+2·8	36·3	+4·9	49·9	+3·9	27·2	68·4	6th & 9th.	27·1	29th	41·3
		Minimarg		21·454			21·597	5th	21·327	26th	·270	31·5	51·0		25·9		38·5		25·1	60·6	14th	18·5	28th	42·1
		Skardu		23·008			23·223	6th	22·805	21st	·418	39·4	57·2		34·5		45·9		22·7	65·9	15th	25·1	29th	40·8
		Dras		20·903			21·088	6th	20·745	26th	·343	30·4	49·1		21·1		35·1		28·0	55·8	2nd	10·1	29th	45·7
		Gilgit		25·288			25·473	6th	25·163	16th	·310	51·0	65·4		46·4		55·9		19·0	71·7	5th	39·9	30th	31·8
		Chitral		24·765			24·850	5th	24·700	6 days	·150	48·3	78·5†		40·4‡		59·8§		38·1	84·6	11th & 12th	35·0	30th	49·6
		Killa Drosh										48·4	62·0		45·4		53·7		16·6	75·3	6th	37·8	16th	37·5
		Para Chinar	6,000									51·8	63·0		43·1		53·0		19·9	76·8	7th	33·7	27th	43·1
		Cherat		25·812	−·002		25·905	2nd	25·688	29th	·217	56·8	67·1	−0·4	51·9	+3·0	59·5	+1·3	15·2	79·3	7th	44·0	30th	25·3

* Mean of 23 days. † Mean of 21 days.

—continued.

in India, Burma, etc., in November, 1900—continued.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 30th November 1900.	Normal rainfall for period, 1st October to 30th November.	Variation from normal of period, 1st October to 30th November.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				3·86	6·40	− 2·53					**XI.—South India.**		
	6	16	1				1	6	N 18° E	11·1	11·8			·85	·837	3·9	17	8·00	+ 9·00	15·68	9·55	+ 6·13	28·44	16·41	+12·03	2·56	Pamban	Madras (South).	57
	16	7					2	5	N 1° W	4·1	3·9			81	·734	7·2	9	10·50	− 1·50	9·79	9·99	− 0·20	16·09	16·00	− 0·09	2·38	Tinnevelly.		
3	12	12	1					2	N 20° E	2·8	2·8	3·8	− 26	76	·753	5·8	5	7·09	− 2·09	2·64	4·66	− 2·02	8·78	12·87	− 4·09	0·72	Madura.		
16	2	2		3	1	3	2	1	S 45° W	1·8	2·0			80	·705	5·5	9			4·84			11·59			1·41	Periya Kulam		
13	1	9	7						N 61° E	4·4	4·0	3·3	+ 22	77	·711	4·6	4	7·36	− 3·36	1·14	3·96	− 2·82	4·40	10·85	− 6·45	0·39	Salem	Madras (South Central).	34
			29				1		E	2·6	2·3	2·6	− 12	81	·691	6·4	5	8·09	− 3·09	2·05	3·72	− 1·67	11·75	9·66	+ 2·09	0·88	Coimbatore.		
1		6	23						N 82° E	7·4	6·9	3·7	+ 86	89	·571	6·6	1	7·20	− 6·20	0·52	3·34	− 2·82	6·77	12·94	− 6·17	0·49	Mercara	Coorg.	35
		5	17	7	1				S 85° E	7·8	6·8			68	·568	3·7	1			0·17	2·23	− 2·06	3·36	7·22	− 3·86	0·17	Chitaldroog	Mysore.	36
	1	10	17	1				1	N 72° E	8·1	7·0	3·7	+ 89	80	·558	5·3	1	6·09	− 5·09	0·32	3·59	− 3·27	6·19	10·74	− 4·65	0·25	Bangalore.		
1		8	14	7					N 88° E	2·7	2·3			74	·563	4·8	1			0·63	1·93	− 1·30	11·24	7·61	+ 3·63	0·57	Hassan.		
		12	13	4				1	N 75° E	8·2	8·9			74	·593	7·1	0			0·03	1·70	− 1·67	9·07	8·31	+ 0·76	0·02	Mysore.		
	7	8	3				2	10	N 1° W	14·0	12·3	5·2	+137	84	·849	6·1	14	13·09	+ 0·91	19·56	15·95	+ 3·61	28·00	26·54	+ 1·46	4·64	Negapatam	Madras (East Coast, South).	56
12	10	1					2	5	N 19° W	2·4	3·0			85	·796	6·1	7	11·80	− 4·80	9·00	13·72	− 4·72	18·24	22·39	− 4·15	2·34	Cuddalore.		
19	6	4					1		N 12° E	3·8		4·2	− 10	80	·762	5·2	6	8·45	− 2·45	4·86	5·37	− 0·51	9·14	12·86	− 3·72	1·71	Trichinopoly.		
	19	5	1				1	4	N 2° E	6·1		6·8	− 10	83	·795	5·6	7	13·00	− 6·00	3·10	13·21	−10·11	12·18	24·21	−12·03	1·01	Madras.		
29		1							N 45° E	1·3				85	·711	4·5	6			2·72			7·98			1·05	Vellore.		
1							14	15	N 66° W	3·6				84	·795	5·0	9	9·40	− 0·40	8·21	10·44	− 2·23	14·74	19·48	− 4·74	3·82	Nellore	Madras (East Coast, Central).	55
3	16	10	1						N 19° E	5·9		5·5	+ 7	79	·742	3·5	2	5·91	− 3·91	0·46	7·06	− 6·60	5·36	16·40	−11·04	0·21	Masulipatam		
		7	9	10		3		1	S 79° E					70	·684	3·6	1	7·00	− 6·00	0·50	4·67	− 4·17	2·80	11·00	− 8·20	0·44	Cuddapah	Madras (Central).	54
29			1						E					71	·578	2·4	2	3·17	− 1·17	0·77	1·15	− 0·38	1·57	6·18	− 4·61	0·40	Kurnool.		
5		2	8	13				2	S 70° E	4·5	4·8	3·3	+ 45	58	·503	5·5	0	3·82	− 3·82	0·03	2·13	− 2·10	2·75	6·42	− 3·67	0·03	Bellary.		
9	4	17							N 37° E	9·3	8·6			74	·661	4·0	3	4·30	− 1·30	0·87	7·41	− 6·54	5·28	17·77	−12·49	0·32	Cocanada	Madras (East Coast, North).	52
2	2	22					1	3	N 32° E	9·9				64	·593	3·6	3			1·46	6·90	− 5·44	11·42	17·44	− 6·02	0·90	Waltair (Vizag.).		
	14							16	N 24° W	8·5	8·3	7·0	+19	86	·684	0·8	0	4·33	− 4·33	0·02	4·99	− 4·97	12·71	14·34	− 1·63	0·02	Gopalpur.		
																											XII.—Hill Stations.		
8				1		14		7	S 67° W	2·0				50	·232	3·6	2			0·78	0·98	− 0·20	0·78	1·15	− 0·37	0·57	Shahrig	Baluchistan.	48
																	0			0	0·75	− 0·75	0	0·81	− 0·81	0	Pishin.		
27					1	2			S 31° W	0·9	0·9	2·7	− 67	79	·242	4·3	5	0·09	+ 4·91	1·67	0·27	+ 1·40	1·67	0·34	+ 1·33	0·55	Quetta.		
	4		2		22		2		S					58	·210		5			1·23	0·35	+ 0·88	1·23	0·42	+ 0·81	0·34	Kalat.		
	1	1	9	11	4	2	1	1	S 54° E	6·7	7·1			81	·360	3·5	5			1·45	0·48	+ 0·97	1·45	0·57	+ 0·88	0·61	Chaman.		
	1	16	9	2	2				N 68° E	2·8		1·9	+ 47	64	·114	4·3	0			0	0·03	− 0·03	0·18	0·34	− 0·16	0	Leh	Punjab.	30
18		1	2	8	1				S 53° E	2·2	2·4			88	·228	3·4	0			0	0·25	− 0·25	1·90	0·88	+ 1·02	0	Srinagar.		
24	1		1	4					S 63° E	1·5	1·6			61	·107	5·3	4			0·68			3·45			0·20	Minimarg.		
23			1			3	2	1	S 71° W	3·1	3·7			72	·170	5·5	0			0·02	0·13	− 0·11	0·14	0·15	− 0·01	0·02	Skardu.		
28							1	1	N 66° W	2·7	2·8			74	·126	4·3	0			0·08	2·00	− 1·92	0·70	3·64	−2·94	0·05	Dras.		
27						1	2		S 72° W	1·0	1·0			41	·155	6·8	0			0·01	0·07	− 0·06	0·30	0·23	+ 0·07	0·01	Gilgit.		
2	8	1		1	3		13	1	N 63° W					74*	242*	0	0			0			0·31			0	Chitral.		
2		8	2	5		9	2	2	S 18° E					65	·217	4·0	3			0·94			3·10			0·56	Killa Drosh.		
	13	6				1	3	7	N 10° W	2·6				53	·202	4·1	6			2·50			3·92			1·12	Para Chinar.		
1	18				3		1	7	N 17° W	12·4	11·5			47	·217	3·1	0			0·06	0·24	− 0·18	0·19	0·24	− 0·15	0·05	Cherat.		

‡ Mean of 28 days.

§ Mean of 19 days.

Table

Abstract of Observations taken at 8 A.M. at 220 Stations.

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
30	Punjab—(concld.)	Murree	6,333	23·946	+·024		24·029	5th	23·847	29th	·182	52·5	61·5	+0·5	47·8	+2·7	54·7	+1·6	13·7	70·7	7th	35·0	27th	35·7
		Poo											62·8		37·7		50·3		25·1	71·4	12th	32·8	27th	38·6
		Simla	7,224	23·203	+·020		23·295	2nd	23·089	28th	·206	50·6	58·0	+2·4	46·6	+2·7	52·3	+2·6	11·4	63·5	7th	39·3	27th	24·2
25	North-Western Provinces.	Chakrata	7,022	23·357	+·019		23·452	2nd	23·248	28th	·204	50·9	63·3	+3·9	46·0	+2·6	54·7	+3·3	17·3	68·7	7th	41·8	28th & 30th.	26·9
		Mussooree	6,705	23·638	+·006		23·732	2nd	23·525	28th	·207	52·3	59·4	+1·2	48·0	+3·2	53·7	+2·2	11·4	64·2	7th & 11th.	41·5	30th. 30th	22·7
		Ranikhet	6,069	24·189	+·020		24·283	2nd	24·083	28th	·200	52·4	63·9	+1·5	49·1	+2·4	56·5	+2·0	14·8	68·1	11th	43·5	30th	24·6
		Muktesar		22·921			23·011	2nd	22·813	28th	·198	51·2	62·5		44·7		53·7		17·8	67·1	7th & 11th.	40·1	28th	27·0
13	Bengal	Yatung	10,480?										51·7		29·3		40·5		22·4	62·1	11th	24·9	17th & 19th.	37·2
		Darjeeling	7,409	23·093	+·033		23·174	2nd	22·951	28th	·223	48·8	56·1	+1·6	43·0	+1·4	49·6	+1·5	13·1	62·3	8th	38·8	24th	23·5
		Gantok	5,660	24·563			24·652	2nd	24·455	27th	·197	53·7	67·0		32·6		49·8		34·4	72·2	4th, 7th & 10th	30·0	10days	42·2
	Central India	Mount Abu	3,945	26·142	−·022		26·240	5th	26·082	26th	·158	68·2	75·3	+2·0	61·4	+4·3	68·4	+3·2	13·9	80·2	1st & 7th.	57·4	17th	2 2 8
		Pachmarhi	3,528	26·554	+·005		26·613	5th	26·483	9th	·130	66·3	75·9	+3·9	50·7	−0·3	63·3	+1·8	25·2	79·2	1st	46·8	28th	32·4
	South India	Wellington	6,200	24·281	+·006		24·317	5th	24·243	11th	·074	59·8	68·8	+2·0	51·6	−0·9	60·2	+0·6	17·2	72·2	5 days	41·2	2nd	31·0
		Kodaikanal	7,688	22·852			22·889	5th	22·818	20th & 21st.	·071	55·3	61·9		48·9		55·4		13·0	67·0	13th & 30th.	43·0	2nd	24·0
XIII.—Extra India.																								
	Ceylon	Trincomalee	12	29·940	+·002	29·878	29·968	1st & 22nd.	29·894	17th	·074	79·0	84·5	−2·3	75·6	+1·1	80·0	−0·6	8·9	87·0	15th	73·0	2nd	14·0
		Colombo	40	29·902	−·023?	29·868	29·950	1st	29·835	17th	·115	79·6	88·4	+2·1?	74·3	+0·3	81·4	+1·2?	14·1	91·0	6th	73·0	12th & 30th.	18·0
	Persia	Meshed	3,104									43·0			38·8							27·0	26th	
		Teheran		26·094‡ / 25·392§			26·260 / 25·540	23rd / 23rd	25·930 / 25·240	9th / 9th	·330 / ·300	45·3	56·5		37·8		47·2		18·7	76·7	1st	32·5	8th	44·2
		Ispahan		24·329‡			24·475	3rd	24·125	9th	·350	43·0	60·4		36·0		48·2		24·4	77·8	3rd	25·1	24th & 26th.	52·7
		Bushire	14	30·058	−·010	30·031	30·194	25th	29·921	8th	·273	65·8	75·8*	−3·3*	61·9	−0·1	68·9*	−1·7	13·9	86·1	5th	53·8	29th	32·3
		Jask*		30·032	−·046		30·123	25th	29·945	9th	·178	75·2	83·1	+0·3	69·8	+1·6	76·5	+1·0	13·3	88·3	3rd	64·2	22nd	24·1
		Muscat	20	30·035		30·003	30·119	25th	29·934	9th	·185	77·9	80·2		75·7		78·0		4·5	83·2	1st	72·7	28th	10·5
	Arabia	Baghdad	220	29·971	−·004	30·181	30·119	24th	29·748	8th	·371	52·4	71·8	−4·8	49·2	−0·8	60·5		22·6	89·6	1st	40·8	25th	48·8
		Bussrah		30·111			30·235	25th	29·869	8th	·366		72·8		55·0		63·9		17·8	88·3	4th	47·0	25th	41·3
		Aden	94	29·916	−·042	29·942	29·977	1st	29·849	11th	·128	79·5	84·3	−1·9	76·7	+3·4	80·5	+0·8	7·6	87·8	3rd	73·4	8th & 29th	14·4
		Perim	201	29·827		29·963	29·925	1st	29·765	11th	·160	81·8	87·5		78·0		82·8		9·5	89·9	1st	76·7	29th	13·2
	Afghanistan	Kabul										42·3	63·4		37·5		50·4		25·9	80·2	7th	28·4	28th & 30th.	51·8
	Central Asia	Kashgar		25·765†			25·950	14th	25·550	8th & 9th.	·400	35·7	55·9		31·2		43·6		24·7	79·5	10th	22·7	29th & 30th.	56·8
	Arabian Sea Islands.	Amini Devi	13	29·929*		29·870*	30·029	2nd	29·877	9th	·152													
		Minicoy	7	29·924		29·856	29·979	5th	29·871	23rd	·108	81·9	86·2							89·7	15th			
	Africa	Zanzibar	73	29·951	−·016	29·951	30·004	5th	29·885	4th	·119	80·6	84·5		77·6		81·1		6·9	86·6	11th	75·1	9th	11·5
		Dunga (Zanzibar.										78·6¶	92·6¶		69·6¶		81·1¶		23·0	95·6	30th	63·3	12th	32·3

† Aneroid corrected.
‡ Aneroid uncorrected.
* Mean of 29 days.
§ Mountain barometer uncorrected.
¶ Mean of 27 days.

NOTE.—When a query is inserted against any reading or in the variation returns for any

I—*concluded.*

in India, Burma, etc., in November 1900—concluded.

Wind Direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Wind resultant.	Wind Velocity. Mean velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 30th November 1900.	Normal rainfall for period, 1st October to 30th November.	Variation from normal of period, 1st October to 30th November.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
19	1	1		4	3			2	S 34° E	3·6	4·4	5·1	− 14	42	·164	3·1	1	0·73	+0·27	0·24	1·08	− 0·84	2·75	2·73	+ 0·02	0·23	Murree.	Punjab—(*concld.*)	30
26			1	2		1			S 45° E							2·7	0			0	0·78	− 0·78	0·11	1·53	− 1·42	0	Peo.		
11	6	8	2	1	1	1			N 39° E	3·4		1·9	+ 79	38	·137	2·2	0	1·18	−1·18	0	0·54	− 0·54	0·18	1·76	− 1·58	0	Simla.		
5	16	1		1	2			5	N 7° W	8·1		4·5	+ 80	52	·191	2·3	0			0	0·59	− 0·59	0·02	1·43	− 1·41	0	Chakrata .	North-Western Provinces.	25
4	5	2	10	6	2			1	N 87° E					56	·221	1·8	0			0	0·40	− 0·40	0·15	1·44	− 1·29	0	Mussooree.		
26				1	1	1	1		S 24° W	1·6	1·8	1·2	+ 50	67	·266	1·3	0	1·00	−1·00	0	0·33	− 0·33	0·13	1·81	− 1·68	0	Ranikhet.		
6	1	2	2	5	2	2		10	N 31° W	5·1	4·7			49	·185	2·1	0			0			0·76			0	Muktesar.		
																	0			0	0·34	− 0·34	0·73	2·83	− 2·10	0	Yatung .	Bengal.	13
7		4	11	7			1		S 84° E	2·2	2·0	1·7	+ 18	75	·256	1·6	0	0·61	−0·61	0	0·20	− 0·20	0·34	6·03	− 5·69	0	Darjeeling.		
31									Calm	3·3	3·9			80	·332	4·2	2			0·51	1·43	− 0·92	1·17	8·32	− 6·85	0·30	Gantok.		
10	2	9	2	2		4		1	N 52° E	4·1	4·3	3·7	+ 16	43	·295	1·8	0	0·18	−0·18	0·03	0·27	− 0·24	0·03	0·98	− 0·95	0·03	Mount Abu	Central India.	
19	1	4	4	2					N 74° E	3·6	3·7	2·5	+ 48	51	·331	1·8	0	1·09	−1·09	0	0·71	− 0·71	0	3·34	− 3·34	0	Pachmarhi.		
18	1	3	3	2	2	1			S 81° E	2·1		2·7	− 22	78	·403	5·4	8	13·22	−5·22	2·19	8·45	− 6·26	17·88	20·55	− 2·67	0·43	Wellington.	South India.	
1	4	6	5	8	1		1	4	N 70° E	7·2				79	·345	5·6	8			5·91			16·72			1·67	Kodaikanal.		
																											XIII.—Extra India.		
19		4				4		3	N 45° W	1·3				89	·882	5·2	18			20·86	16·23	+ 4·63	28·73	26·19	+ 2·54	6·15	Trincomalee	Ceylon.	
	4	12	9	3	1	1			N 65° E	6·5		5·8	+ 12	86	·878	4·0	13			8·05	13·25	− 5·20	17·99	26·76	− 8·77	1·79	Colombo.		
														72	·203	5·7	3			0·92	0·51	+ 0·41	1·01	1·30	− 0·29	0·55	Meshed .	Persia.	
1	8	15		1		2		3	N 23° E	1·1	1·4			67	·202	4·7	8			2·61	1·04	+ 1·57	2·94	1·21	+ 1·73	0·87	Teheran.		
										2·2	2·9			79	·225	2·8	2			0·35	1·16	− 0·81	1·06	1·46	− 0·40	0·16	Ispahan.		
	5	13	6	5				1	N 58° E	6·2	7·4			64	·418	3·1	3			1·92	2·60	− 0·68	2·97	2·80	+ 0·17	1·25	Bushire.		
6	5	6	8	1				3	N 46° E	10·6	12·3			72	·644	1·3	2			0·82	0·44	+ 0·38	0·99	0·48	+ 0·51	0·62	Jask.		
15		1		2			2	10	N 49° W	3·6	3·7			68	·655	2·2	4			0·92	0·94	− 0·02	0·92	0·98	− 0·06	0·30	Muscat.		
12	5	3	2				2	6	N 10° W	1·9	2·5			72	·287	3·0	2			1·69	1·03	+ 0·66	1·74	1·07	+ 0·67	1·04	Baghdad .	Arabia.	
	17				8		2	3	N 20° W								1			0·18			0·18			0·17	Bussrah.		
		21	9						N 58° E	16·0*	15·7*	11·6	+ 35	74	·737	3·6	0			0	0·21	− 0·21	0	0·23	− 0·23	0	Aden.		
			24	6					S 82° E	24·0	22·3			90	·979	2·6	0			0·03	0·06	− 0·03	0·03	0·15	− 0·12	0·03	Perim.		
	8	8			1	2	2	9	N 13° W					76	·209	1·7	4			2·96	0·91	+ 2·05	3·00	0·94	+ 2·06	2·11	Kabul .	Afghanistan.	
4		7		7	4	5		2	S 40° E	0·5	0·5			66	·139	3·1	0			0	0·04	− 0·04	0	0·11	− 0·11	0	Kashgar‖ .	Central Asia.	
	16	2	3	3				5	N 9° E							3·9*	6			1·53			3·88			0·39	Amini Devi.	Arabian Sea Islands.	
	8	10	3	5	4				N 60° E	5·0	5·3			82	·890	4·6	10			11·49			15·55			4·17	Minicoy.		
		3	4	12	7	3	1		S 37° E	4·6	4·3			82	·856	6·9	9			7·43	7·87	− 0·44	12·47	11·59	+ 0·88	2·04	Zanzibar .	Africa.	
		15		9		3			N 82° E					89¶	·875¶		10			5·40			9·75			2·85	Dunga (Zanzibar.)		

Station, the data for that station are not utilized in calculating the provincial variations.

‖ Wind variable 1.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66

Meteorological Province.	Station.	Elevation of barometer above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
Burma Coast and Hat Islands.	Port Blair		29·892	29·789	·103	29·840	−·004	29·831	88·2	78·4§	9·8	90·3	75·4	14·9	85·4	86·2	82·4§	+ 1·8	75·3	79·7	79·3	78·1
	Rangoon		·943	·823	·120	·883	−·015	·861	86·7	70·8	15·9	89·7	64·2	25·5	81·6	84·2	77·0	− 0·9	69·1	75·0	74·7	72·9
	Diamond Island		·941	·835	·106	·887	−·010	·863	86·5	77·3	9·2	91·4	74·2	17·2	84·5	84·1	81·0	+ 1·9	73·0	77·4	76·8	75·7
	Cocos Island†	111	·888	·789	·099	·838	+·026	·881	85·6	77·7	7·9	89·0	75·6	13·4	83·1	82·5	80·5	+1·3	72·1	75·5	74·9	74·2
	Akyab		·973	·863	·110	·921	−·018	·884	86·4	67·7	18·7	89·9	60·7	29·2	79·9	82·7	76·5	− 1·4	?	73·0	74·6	?
Bengal and Orissa.	Chittagong		·911	·812	·099	·860	−·017	·836	85·7	64·3	21·4	89·3	56·0	33·3	80·2	82·0	74·5	+ 0·5	63·9	72·4	71·3	69·2
	Calcutta (Alipore)		30·008	·890	·118	·941	−·020	·908	84·1	63·6	20·5	88·9	57·1	31·8	79·3	82·1	73·3	+ 0·9	62·8	69·1	69·1	67·0
	Saugor Island		29·997	·882	·115	·934	−·017	·903	83·0	66·4	16·6	86·7	60·8	25·9	78·7	80·2	73·6	+ 0·2	64·3	71·0	69·9	68·4
	False Point		30·009	·901	·108	·954	−·018	·917	83·9	64·2	19·7	87·4	59·0	28·4	80·0	80·8	72·9	− 0·1	63·9	70·8	71·0	68·6
Gangetic Plain and Chota Nagpur.	Hazaribagh		28·003	27·896	·107	27·946	−·020	·930	?	?	?	?	?	?	?	?	?	?	?	?	?	?
	Darbhanga		29·862	29·739	·123	29·796	−·027	·918	82·3	61·8	20·5	86·0	53·8	32·2	77·6	79·7	71·0	− 0·3	60·6	68·1	68·1	65·6
	Allahabad		·721	·611	·110	·656	−·029	·923	84·8	56·6	28·2	88·6	50·4	38·2	76·8	82·9	69·3	+ 0·3	54·6	65·6	67·0	62·4
Upper Sub-Himalayan.	Dehra Dun		27·770	27·685	·085	27·717	−·027	·944	77·0	53·2	23·8	80·6	46·4	34·2	68·6	71·9	63·1	+ 0·7	50·4	58·7	59·7	56·3
	Roorkee		29·116	29·015	·101	29·054	−·031	·925	81·0	51·6	29·4	84·8	42·0	42·8	71·6	77·7	61·8	+ 0·9	49·3	61·2	62·0	57·5
	Meerut		·268	·165	·103	·208	−·039	·928	83·2	55·7	29·5	87·5	44·9	42·6	70·1	78·5	66·7	+ 1·9	51·3	60·7	63·5	58·5
	Lahore		·311	·221	·090	·256	−·039	·942	82·3	55·0	27·3	88·6	45·2	43·4	71·9	81·2	67·0	+ 4·6	51·8	62·1	66·5	60·1
	Lahore (New Shed)								85·1	53·9	31·2	92·6	44·0	48·6	73·8	82·4	67·4		51·5	63·1	67·3	60·6
	Ludhiana		·202	·109	·094	·145	−·021	·945	81·1	55·3	25·8	86·1	45·1	41·0	70·8	77·9	66·2	+ 3·2	53·8	60·1	62·0	58·6
Indus Valley and N.-W. Rajputana.	Peshawar		28·935	28·838	·097	28·877	−·028	·999	78·3	50·2	28·1	87·1	38·7	48·4	68·9	73·7	61·7	+ 3·1	46·1	57·9	59·5	54·5
	Jacobabad		29·845	29·727	·118	29·776	−·040	·922	90·9	57·0	33·9	99·7	48·9	50·8	79·0	86·8	71·5	+ 5·8	52·6	64·5	68·1	61·7
	Kurrachee		30·019	·917	·102	·964	−·020	·945	90·7	64·0	26·7	100·0	59·3	40·7	83·0	85·0	76·5	+ 2·4	59·0	68·6	71·6	66·4
East Rajputana, Central India, and Gujarat.	Jaipur		28·604	28·503	·101	28·543	−·019	·939	87·9	58·6	29·3	94·2	49·0	45·2	80·1	84·8	71·5	+ 3·8	52·1	63·2	64·4	59·9
	Udaipur		·109	·000	·109	·055		·939	85·1	55·2	29·9	90·5	50·3	40·2	78·2	82·8	69·6		52·3	61·9	62·5	58·9
	Deesa		29·553	29·440	·113	29·489	−·022	·907	93·8	61·5	32·3	99·3	54·8	44·5	86·3	91·4	77·4	+ 3·4	53·7	64·6	65·2	61·2
	Jamnagar		·958	·842	·116	·900		·908	90·9	64·3	26·6	96·3	60·2	36·1	84·0	88·6	77·0		57·6	66·7	67·0	63·8
Deccan.	Belgaum		27·437	27·326	·111	27·376	−·008	·809	85·1	62·5	22·6	87·3	56·8	30·5	78·9	84·0	73·4	+ 2·6	58·4	63·8	63·6	61·9
	Sholapur		28·407	28·280	·127	28·341	−·006	·867	89·7	63·7	26·0	91·9	56·3	35·6	81·7	87·2	75·7	+ 2·0	56·3	63·6	64·4	61·4
	Poona		·157	·035	·122	·098	−·007	·861	90·1	59·5	30·6	92·8	53·4	39·4	81·4	89·0	74·8	+ 2·4	55·9	62·5	64·1	60·9
	Akola		29·099	·969	·130	29·030	−·002	·915	89·2	56·7	32·5	92·5	51·1	41·4	80·6	87·9	73·5	+ 1·1	52·0	64·6	65·8	60·8
	Buldana	2,132	27·887	27·778	·109	27·828	−·004	·894	85·4	62·8	22·6	88·5	59·4	29·1	80·2	82·9	74·3	+ 2·1	54·2	61·2	61·4	58·9
	Khandwa		28·977	28·854	·123	28·912	−·006	·910	91·5	57·2	34·3	94·7	52·6	42·1	80·8	89·5	73·8	+ 3·3	53·0	64·6	66·9	61·5
	Nagpur		29·004	·875	·129	·936	−·001	·922	87·2	59·8	27·4	90·1	57·4	32·7	77·8	85·2	73·9	+ 1·2	54·6	64·3	66·0	61·6
	Nagpur (Sanitary Commr.'s Office).		·021	·895	·126	·954		·929	88·1	59·4	28·7	91·2	56·6	34·6	79·6	85·9	73·2		55·0	66·5	68·5	63·3
	Hyderabad (Deccan).		28·315	·204	·111	·258	−·017	·832	85·9	62·7	23·2	88·1	57·1	31·0	79·7	82·3	73·4	+ 1·4	59·6	66·6	66·3	64·2
West Coast.	Bombay		29·950	29·844	·106	29·891	−·019	·868	87·8	74·5	13·3	92·3	72·3	20·0	81·3	84·4	80·0	+ 0·9	68·4	72·2	75·3	72·0
	Karwar		·922	·813	·109	·861	−·004	·837	90·5	69·6	20·9	93·7	63·9	29·8	82·8	88·0	79·1	+ 1·6	67·1	72·5	76·2	71·9

§ Mean of 29 days. ‡ Mean of 28 days. † Mean of 25 days only.

II.

Stations in India, Burma, etc., for November, 1900.

Vapour Tension.					Humidity.					Cloud.				Wind Direction.														Rainfall.			
														Number of winds from																	
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Mean wind direction.	Normal mean wind direction of month.	Wind steadiness. Average percentage.	Wind steadiness. Normal percentage.	Wind velocity. Mean velocity in miles per diem.	Wind velocity. Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Meteorological Province.
																									%	%						
·838§	·942	·911	·897	−·026	86§	77	73	79	−3	4·4	5·4	4·9	−0·4		7	24	9	7	3	1	5	4	N. 51° E.	N. 81° E.	48	44	122	165			Port Blair	Burma Coast and Bay Islands.
·698	·782	·741	·740	−·042	92	72	63	76	−2	2·2	3·4	2·8	−1·4		5	25	20	3	2	2	1		N. 62° E.	N. 63° E.	65	56	98†	97			Rangoon	
·738	·852	·828	·806	+·015	79	72	71	74	−4	2·6	3·3	3·0	−1·5	9	5	14	18	6	3		1	4	N. 70° E.	N. 66° E.	50	59	126*	222			Diamond Island.	
·722	·785	·766	·758	−·035	75	69	68	71	−7	2·6	2·9	2·8	−1·8		6	33	3		5	3			N 43° E	N 80° E	63	33	84	?	1·07	0·57	Cocos Island.	
?	·730	·754	?	?	?	71	67	?	?	1·8	2·5	2·2	−1·0			8	19	3		2	14	14	N. 7° E.	N. 3° E.	20	31	68	55			Akyab	
·598	·699	·628	·642	−·042	98	67	57	74	−5	1·6	2·1	1·9	−1·0		7	16	6	2		2	5	22	N. 6° W.	N. 19° W.	52	48	72*	63			Chittagong	Bengal and Orissa.
·565	·578	·541	·561	−·023	96	58	49	68	−5	1·2	2·0	1·6	−0·9		20	5	1	2	1	3	11	17	N. 32° W.	N. 14° W.	61	59	65	62			Calcutta (Alipore).	
·577	·660	·598	·612	−·025	89	67	58	71	−4	1·5	1·9	1·7	−1·2		21	8	1		1	4	7	18	N. 24° W.	N. 3° E.	65	60	166	167			Saugor Island.	
·600‡	·634	·629	·621	−·007	93‡	61	60	73	−1	2·7	2·4	2·6	−1·0		13	10	16	2	1	1	1	16	N. 22° E.	N. 27° E.	52	59	101*	153			False Point	
?	?	?	?	?	?	?	?	?	?	1·9	1·0	1·5	−1·0	5	10	2	6	2	4	5	11	15	N. 51° W.	N. 30° W.	34	45	109	110			Hazaribagh	Gangetic Plain and Chota Nagpur.
·517	·565	·538	·540	+·006	93	59	52	68	−2	0·5	0·3	0·4	−0·4	12	4	2	3	5	3	9	14	8	S. 84° W.	S. 85° W.	30	40	38	41			Darbhanga.	
·404	·480	·451	·445	+·033	88	52	40	60	−2	1·2	1·5	1·4	+0·2	10	6	4	5	3	3	3	12	14	N. 51° W.	N. 52° W.	33	23	71*	49			Allahabad.	
·335	·375	·364	·358	+·016	82	53	46	60	−1	1·1	2·1	1·6	+0·2	31	12	17							N. 45° E.	S. 89° W.	28	17	15	34			Dehra Dun	Upper Sub-Himalaya.
·325	·408	·354	·362	+·017	84	52	37	58	0	0·6	0·9	0·8	−0·2	46	2		1	3	1			7	N. 26° W.	N. 88° W.	7	4	27	26			Roorkee	
·350	·410	·392	·384	+·049	84	55	40	60	+4	0·6	0·8	0·7	−0·1	40			1				13	6	N. 75° W.	N. 57° W.	28	40	14*	29			Meerut	
·350	·434	·460	·414	+·059	80	55	42	59	+9	1·3	3·0	2·2	+0·8	30	6		1	4	2		13	4	N. 72° W.	N. 45° W.	22	18	27	32			Lahore	
·355	·442	·474	·424		84	52	42	60																							Lahore (New Shed).	
·399	·382	·352	·378	+·065	91	50	36	59	+6	1·9	2·7	2·3	+0·4	18	5	8	1	5	1		19	3	N. 53° W.	N. 45° W.	23	33	28*	23			Ludhiana	
·266	·351	·342	·320	+·048	72	50	41	54	+1	3·8	4·9	4·4	+2·1	43	3		5	1			1	6	N. 4° E.	N. 76° E.	12	12	21*	51			Peshawar	Indus Valley and N.-W. Rajputana.
·344	·417	·440	·400	+·102	73	42	35	50	+6	2·0	2·3	2·2	+0·8	46	2		1		4	4	1	2	S. 51° W.	N. 13° W.	9	11	19*	40			Jacobabad.	
·441	·513	·599	·517	+·067	73	46	50	56	+2	1·0	0·7	0·9	−0·3	1	3	4	4	2	6	23	12	5	S. 59° W.	N. 85° W.	46	18	130*	193			Kurrachee	
·312	·372	·351	·345	+·048	63	36	29	43	0	2·1	2·1	2·1	+0·6	7	2	7	3	5	2	6	12	16	N. 62° W.	N. 19° W.	30	36	56	66			Jaipur	East Rajputana, Central India, and Gujarat.
·362	·354	·318	·345		82	37	29	49		1·5	2·0	1·8		42	2	6	5	2		1	1	1	N. 61° E.		17		8				Udaipur	
·314	·320	·274	·303	+·022	57	26	19	34	0	1·2	1·7	1·5	0		5	12	13	11	7	4	2	6	N. 89° E.	N. 61° E.	34	48	164‡	181			Deesa	
·390	·429	·373	·397		64	37	28	43		0·9	1·0	1·0			24	16	4			1	3	12	N. 36° E.		89		187				Jamnagar	
·442	·408	·336	·396	−·068	77	41	29	49	−10	2·7	3·5	3·1	−0·3		4	18	28	10					N. 78° E.	N. 76° E.	81	64	224¶	267			Belgaum	Deccan.
·367	·366	·325	·353	−·107	61	34	25	40	−13	2·1	3·3	2·7	−0·9	3	2	14	12	28				1	S. 80° E.	N. 77° E.	69	65	162*	199			Sholapur	
·407	·332	·292	·344	−·072	80	31	21	44	−5	1·9	2·7	2·3	−0·4	1	1	15	15	20		5	2	1	S. 81° E.	N. 82° E.	56	60	171*	138			Poona	
·328	·396	·338	·354	−·056	71	38	26	45	−8	1·2	1·2	1·2	−0·5	24	1	24	10	1					N. 58° E	N. 61° E.	54	49	57*	85			Akola	
·317	·306	·279	·300	−·095	55	29	25	37	−13	0·7	1·5	1·1	−1·2		10	24	8	12	4	1	1		N. 67° E.	N. 64° E.	58	52	122*	122	Nil	Nil	Buldana	
·354	·404	·377	·378	+·009	75	39	27	47	−2	1·2	1·6	1·4	−0·2	15		10	19	13	2	1			S. 82° E.	N. 58° E.	59	52	58	64			Khandwa	
·364	·436	·401	·400	−·031	71	46	33	50	−5	1·4	1·9	1·7	−0·8	43	1	6	9	1					N. 73° E.	N. 54° E.	25	60	88	95			Nagpur	
·380	·488	·482	·450		75	48	39	54		0·7	1·1	0·9		4	2	45		3		1		5	N. 40° E		75		20*				Do. (Sanitary Commr.'s Office).	
·477	·495	·452	·475	−·057	83	48	41	57	−10	1·6	3·4	2·5	−0·7	15		6	18	20	1				S. 73° E.	S. 72° E.	63	67	83*	88			Hyderabad (Deccan).	
·617	·673	·756	·682	−·012	72	63	64	66	−4	1·6	1·2	1·4	−0·7		3	11	18				7	21	N. 9° E.	N. 18° E.	43	52	200	235			Bombay	West Coast.
·635	·662	·749	·682	−·024	87	59	57	68	−6	1·3	2·0	1·7	−0·7	8	3	12	6			1	12	18	N. 25° W	N. 31° W.	43	46	67	60			Karwar	

¶ Mean of 21 days. * Corrected. § Mean of 28½ days.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 66

Meteorological Province.	Station.	Elevation of barometer above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean daily pressure.	Variation from normal.	Mean reduced to S. L., 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
South India.	Periyakulam		29·021	28·901	·120	28·961			86·7	70·4	16·3	90·8	64·1	26·7	80·1	83·1	77·7		68·5	72·2	73·2	71·3
	Salem		·052	·933	·119	·998	−·001	29·875	88·3	69·5	18·8	92·2	62·6	29·6	81·4	83·6	77·3	+1·2	68·1	72·7	73·6	71·5
	Chitaldroog		27·579	27·468	·111	27·524	−·022	·835	85·8	64·9	20·9	89·9	58·3	31·6	78·9	83·0	74·7	+2·9	60·4	67·9	67·4	65·2
	Bangalore		26·993	26·891	·102	26·945	−·002	·855	80·7	62·5	18·2	84·6	55·6	29·0	74·5	77·9	70·9	+1·1	61·0	65·5	65·4	64·0
	Hassan		·927	·824	·103	·879	−·016	·851	80·9	59·8	21·1	83·4	54·3	29·1	75·4	78·1	69·7	+0·1	58·9	65·8	65·6	63·4
	Mysore		27·478	27·364	·114	27·421	−·015	·843	83·7	64·3	19·4	87·9	58·4	29·5	77·4	81·6	73·5	+0·6	62·9	67·6	68·7	66·4
	Madras		29·972	29·872	·109	29·922	+·004	·874	85·4	71·6	13·8	88·1	66·3	21·8	82·0	82·1	77·9	−0·2		75·3	74·7	74·2
	Bellary		28·520	28·384	·136	28·452	−·009	·864	89·9	66·6	23·3	93·9	60·1	33·8	81·5	86·6	77·1	+1·9	61·8	66·7	67·8	65·4
	Waltair		29·790	29·682	·108	29·736		·904	83·8	71·8	12·0	86·4	67·3	19·1	81·3	80·9	77·1		64·8	69·8	70·7	68·4
Hill Stations, Baluchistan.	Quetta		24·768	24·686	·082	24·717	−·009		64·9	39·5	25·4	78·6	29·3	49·3	56·5	60·9	51·2	+3·8	37·8	48·3	49·7	45·3
Hill Stations, Northern India.	Leh		19·812	19·711	·101	19·763	+·030		49·8	23·9	25·9	60·4	14·5	45·9	39·4	46·6	36·8	+4·3	20·9	31·4	36·9	29·7
	Srinagar		25·027	24·923	·104	24·966	−·033		63·3	36·3	27·0	68·2	27·1	41·1	49·8	61·5	49·3	+4·3	34·7	48·1	58·9	47·2
	Kailang	10,087	21·056	20·945	·111	21·010	?		56·1	28·3	27·3	64·3	22·0	42·3	44·1	50·1	39·1	+5·4	27·5	33·5	37·8	32·9
	Simla (Ridge)		23·226	23·167	·059	23·187	+·017		57·7	46·6	11·1	63·5	39·3	24·2	54·2	53·4	50·9	+1·2	37·8†	43·0	44·6	41·7
	Chakrata		·378	·324	·054	·341	−·002		63·0†	45·9	17·1	68·7	41·6	27·1	57·3	56·1	52·5†	+2·0	40·1	46·6	47·3	44·7
	Ranikhet		24·209	24·135	·074	24·159	+·001		63·6	49·0	14·6	68·0	43·5	24·5	59·0	59·8	55·2	+1·2	44·6	50·6	50·6	48·6
	Muktesar		22·948	22·883	·065	22·916			62·4	44·7	17·7	67·1	40·1	27·0	56·7	57·2	52·3		39·2†	46·0	48·1	44·4
	Katmandu	4,388	25·698	25·581	·117	25·636	?		73·8	46·6	27·2	79·3	41·7	37·6	62·0	66·8	58·5	+0·2	45·4	56·1	58·1	53·2
	Darjeeling		23·105	23·040	·065	23·069	+·026		55·8	43·0	12·8	62·3	38·8	23·5	51·1	53·0	48·9	+1·5	39·8	46·8	49·8	45·5
Hill Stations, Central India.	Mount Abu		26·161	26·090	·071	26·118	−·024		75·0	61·4	13·6	80·2	57·4	22·8	72·3	72·3	67·5	+2·8	50·9	56·5	57·2	54·9
	Pachmarhi		·573	·487	·086	·526	−·001		75·7	56·8	24·9	77·7	46·8	30·9	71·8	73·4	63·5	+1·5	47·7	56·6	58·0	54·1
	Chikalda	3,642	·454	·354	·100	·400	−·004		77·6	60·4	17·2	79·2	56·3	22·9	73·2	74·5	69·0	+2·1	52·9	57·8	59·0	56·6
Hill Stations, S. India.	Wellington		24·286	24·219	·067	24·253	+·007		69·1	51·5	17·6	74·1	41·2	32·9	65·4	64·4	59·1	+0·6	50·1	58·9	60·0	56·3
	Kodaikanal		22·861	22·794	·067	22·827			62·1	48·9	13·2	67·0	43·0	24·0	58·2	57·2	54·3		45·6	53·7	54·7	51·4
Extra India.	Aden		29·923	29·821	·102	29·876	−·030	·902	84·2	76·8	7·4	87·9	73·3	14·6	81·6	83·1	80·4	+1·5	71·3	74·0	72·6	72·6
	Perim		·826	·739	·087	·787	+·019	·921	87·5	78·0	9·5	89·7	76·7	13·0	84·7	83·7	81·8	+0·9	76·0	81·0	80·0	79·0
	Minicoy		·939	·869	·070	·903		·835	86·2			89·8			84·3	83·6				77·9	77·5	
	Zanzibar		·955	·843	·112	·897	−·023	·899	84·8	77·6	7·2	88·0	75·1	12·9	82·0	84·1	81·0	+1·4	73·7	76·9	76·6	75·7
	Port Victoria (Seychelles).	15	·964	·879	·085	·922	−·020	·861	82·7	74·6	8·1	84·9	70·7	14·2	81·5	81·8	78·4	−0·6	72·9	76·1	76·0	75·0
	Mauritius (Pamplemousses).	181				·899	+·004	30·028				83·1	62·7	20·4			76·2	+0·1				

† Mean of 29 days. ‡ Mean of 28 days.

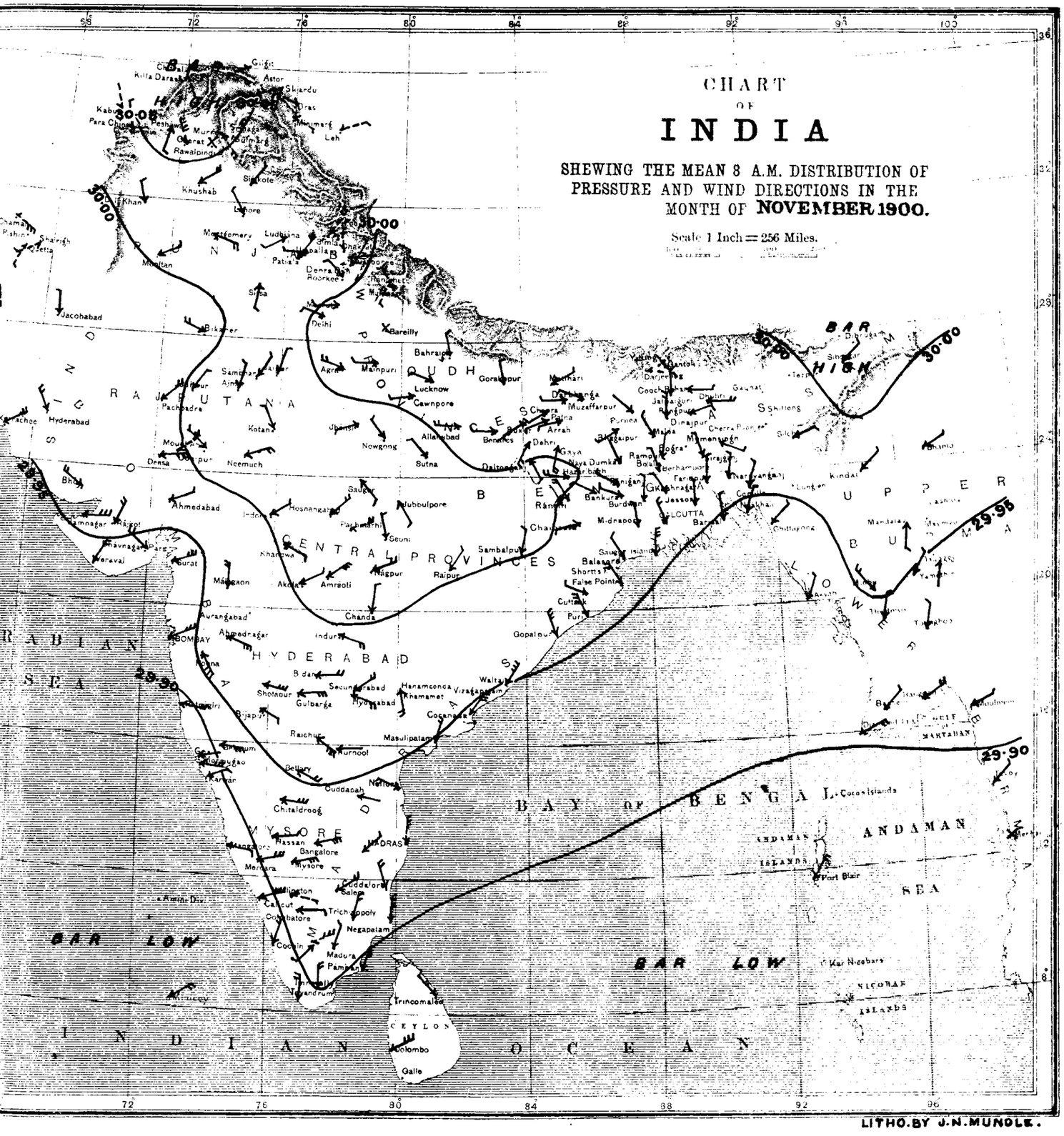
—concluded.

tations in India, Burma, etc, for November, 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind direction.												Wind steadiness.		Wind velocity.		Rainfall.		Station.	Meteorological Province.
														Number of winds from																			
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
676	694	·685	·685		91	67	62	73		4·8	7·0	5·9		11	2	7	9	13	4	1	8	5	S. 73° E.		% 18	%	48*				Periyakulam	South India.
572	·695	·704	·690	+·030	93	64	62	73	− 2	4·7	6·2	5·5	+0·3	21	2	17	17			2	1		N. 65° E.	N 87° E.	48	24	95*	74			Salem.	
478	·548	·479	·502	+·008	79	56	43	59	− 6	3·3	4·9	4·1	−0·6		2	16	31	9					N. 81° E.	N. 74° E.	85	72	160*	160			Chitaldroog.	
524	·522	·486	·511	−·021	92	61	52	68	− 5	3·7	4·8	4·3	−0·6	1	3	23	27	3	1	1	1		N. 71° E.	N. 61° E.	77	64	170*	108			Bangalore.	
493	·529	·489	·504	−·032	95	60	51	69	− 4	5·1	5·5	5·3	−1·1			27	26	7					N. 74° E.	N. 71° E.	87	77	56*	86			Hassan.	
563	·558	·546	·556	−·014	93	59	50	67	− 1	6·1	6·4	6·3	−0·2		3	22	24	10				1	N. 75° E.	N. 78° E.	78	72	214*	219			Mysore.	
	·789	·763	·799	+·028		72	70	84	+ 3	6·6	5·7	6·2	+0·2		23	29	5	1			1	1	N. 29° E.	N. 24° E.	81	64	116	156			Madras.	
500	·474	415	·473	−·067	76	44	34	51	−11	6·4	6·0	6·2	+1·3	2	4	8	29	17					S. 87° E.	N. 81° E.	78	55	99*	77			Bellary.	
524	·580	·622	·575		67	54	59	60		3·6	3·2	3·4				26	18	13	2		1		N. 81° E.		75		125				Waltair.	
214	·258	·245	239	+·088	87	60	50	66	+19	3·4	3·9	3·7	+2·2	44		2				3	5	6	N. 71° W.	N. 51° W.	17	40	22*	54			Quetta.	Hill Station, Baluchistan.
089	·112	·144	·115	+·023	69	45	44	53	− 1	3·3	5·2	4·3	+0·2			1	1	2	15	29	9	3	S. 40° W.	S. 21° W.	73	34	69	44			Leh.	Hill Stations, Northern India.
185	·320	·477	·327	+·100	85	88	86	86	+ 8	3·1	4·5	3·8	+0·6	26	7	6	3	4	3	1		10	N. 11° E.	N. 16° E.	20	18	59*	66			Srinagar.	
139	·104	·130	·124	+·022	88	37	36	54	+ 2	4·9	5·8	5·4	+1·7				2	5	15	17	16	5	S. 44° W.	S. 52° W.	63	61	26	33	0·01	0·01	Kailang.	
138†	·164	·205	·168	−·006	44†	40	50	44	− 4	2·0	3·1	2·6	+0·3	34	9	6			6	2	1	2	N. 3° E.	S. 12° W.	12	18	77	101			Simla (Ridge).	
190	·210	·238	·213	+·014	61	45	53	53	− 2	1·8	1·9	1·9	+0·2	2	6	3		21	26	1		1	S. 25° E.	S. 61° W.	60	30	193	115			Chakrata.	
252	·283	·275	·270	+·020	72	57	53	61	+ 2	1·3	1·3	1·3	−0·2	22	3		2			11	18	4	S. 86° W.	S. 53° W.	45	35	43*	37			Ranikhet.	
185†	·204	·248	·212		62†	44	52	53		2·4	3·0	2·7		11	4		5	10	4	8	5	13	S. 66° W.		15		112*				Muktesar.	
296	·338	·387	·357	+·020	92	70	59	74	+ 2	2·0	2·0	2·0	−0·5			1	9	2		2	39	7	N. 86° W.	N. 80° W.	57	45	16	14	*Nil*	*Nil*	Katmandu.	
216	·278	·316	·270	+·005	79	75	76	77	− 3	2·9	4·3	3·6	−0·8	4		10	6	20	2	9	5	4	S. 46° E.	N. 79° W.	30	12	47*	64			Darjeeling.	
255	·278	·297	·277	+·033	48	35	38	40	+ 1	1·4	2·5	2·0	+0·5		15	10	4	6	6	10	3	6	N. 6° E.	N. 54° E.	15	21	104*	94			Mount Abu.	Hill Stations, Central India.
300	·285	·306	·297	−·016	80	37	37	51	− 4	1·5	1·9	1·7	−0·4	14	7	20	5	8	1	1		4	N. 52° E.	N. 46° E.	45	41	88*	63			Pachmarhi.	
317	·303	·324	·314	−·052	61	37	38	45	−10	0·4	1·0	0·7	−1·7	40	14	1		3	1	1			N. 11° E.	N. 7° W.	18	19	125*	114	*Nil*	*Nil*	Chikalda.	
354	·436	·475	·422	+·006	91	70	78	80	− 3	6·0	7·6	6·8	0	8	1	4	8	29	10				S. 50° E.	S. 41° E.	68	54	49	55			Wellington	Hill Stations, S. India.
281	·372	·407	·383		79	77	87	78		6·1	7·8	7·0		3	4	10	6	18	1			15	N. 62° E.		28		170				Kodaikanal§	
697	·738	·663	·699	+·046	76	68	59	68	+ 2	4·1	1·2	2·7	+0·5		2	34	15	7			1	1	N. 63° E.	S. 87° E.	80	66	372*	311			Aden.	Extra India.
870	1·016	·986	·957	+·285	91	84	85	87	+25	1·5	0·1	0·8	−1·0			1	19	38	2				S. 59° E.	S. 62° E.	90	82	531	491			Perim.	
	·874	·863				74	75			4·2	5·4	4·8			16	15	8	8	6	2	3	2	N. 51° E.		40		127*				Minicoy.	
781	·858	·817	·819	0	82	79	70	77	− 4	7·0	4·9	6·0	+0·3	2	6	4	7	10	17	9	4	1	S. 14° E.	S. 31° E.	37	29	105*	115			Zanzibar.	
795	·835	·825	·818	−·001	92	77	76	82	0	6·8	6·8	6·8	−0·1	6	1	1	10	24	12	5	1		S. 37° E.	S. 70° E.	63	30	177	140	26·21	4·88	Port Victoria (Seychelles).	
			·576					69	− 2																		240	254	1·31	0·36	Mauritius (Pamplemousses).	

§ Wind variable 3.

* Corrected.



Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric ssure 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 re observations, and by comparison with the ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal pared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Depart- t. 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 n 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 ibert'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 indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during 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 variation of the mean 8 a.m. pressure of the month from the normal by means of lines drawn [illegible] equal amounts of variation (of two hundredths of an inch or ·020″). The numbers are given in thousandths of an inch, 20 represents ·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 [illegible] parallel lines near to each other, one continuous and the other broken or dotted, represent the line of no variation, the dotted [illegible] being the area of deficient pressure or negative variations.

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

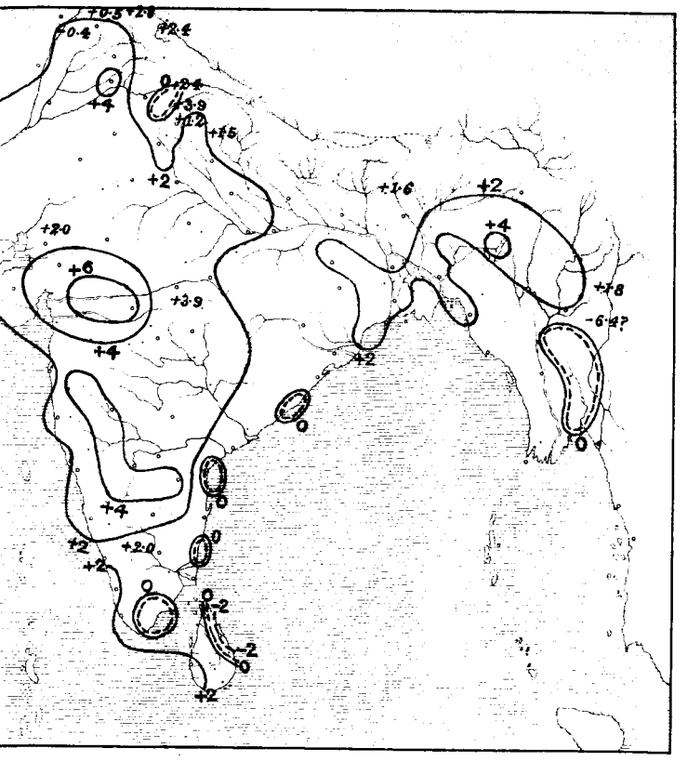
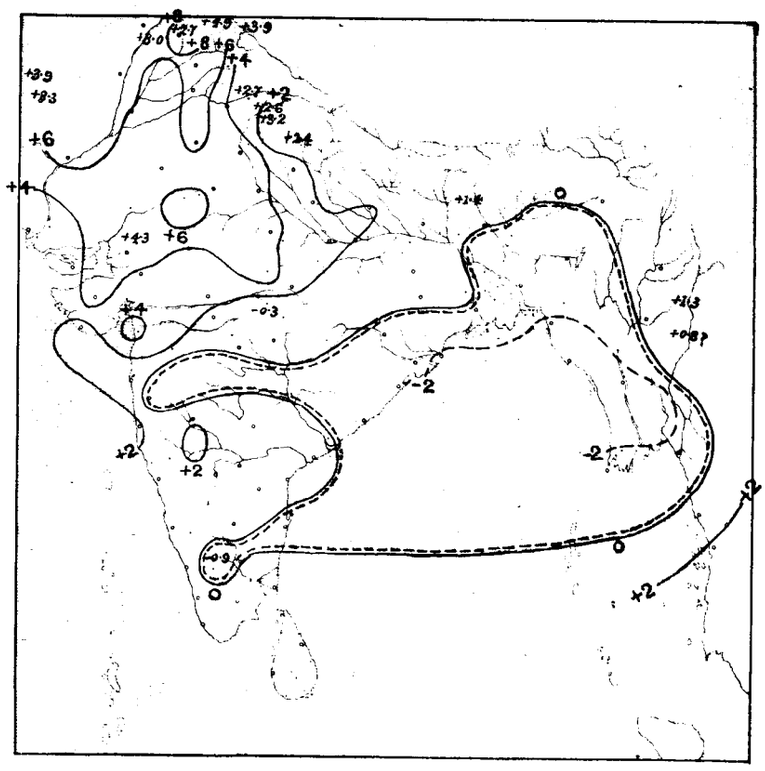


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

inuous lines indicate that the mean maximum of month was in ss by amounts indicated by the attached numbers. Broken or dotted that it was in defect by the amounts indicated by the attached bers. Double lines are the lines of no variation, the broken line facing rea 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 the amounts indicated by the attached numbers. Double lines are the lines of no variation, the broken line facing the area of deficient temperature.

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

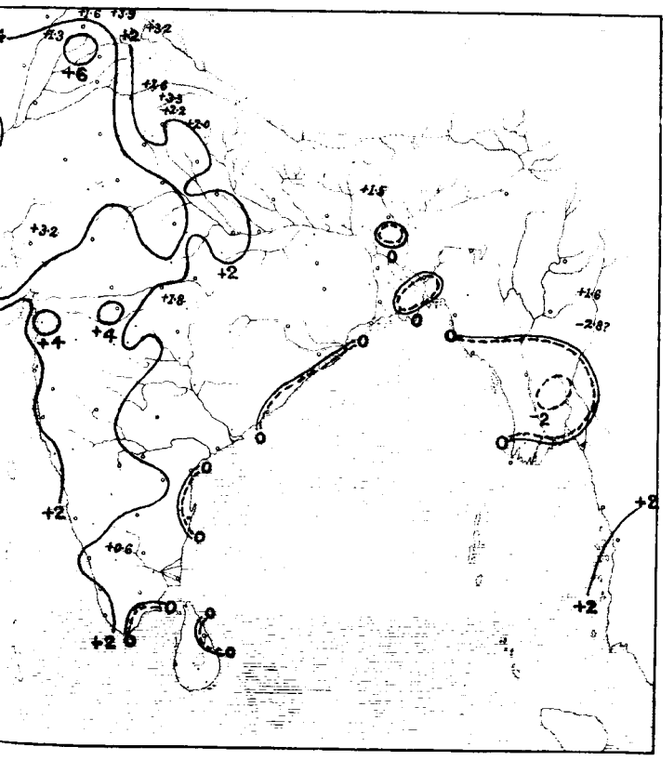
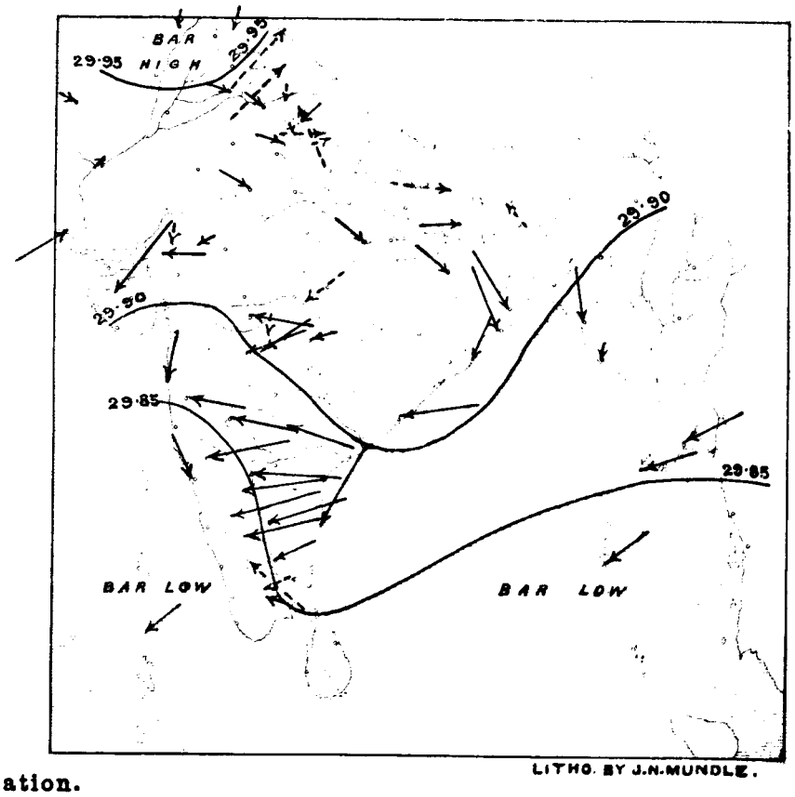


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF NOVEMBER 1900.



LITHO. BY J.N. MUNDLE.

Explanation.

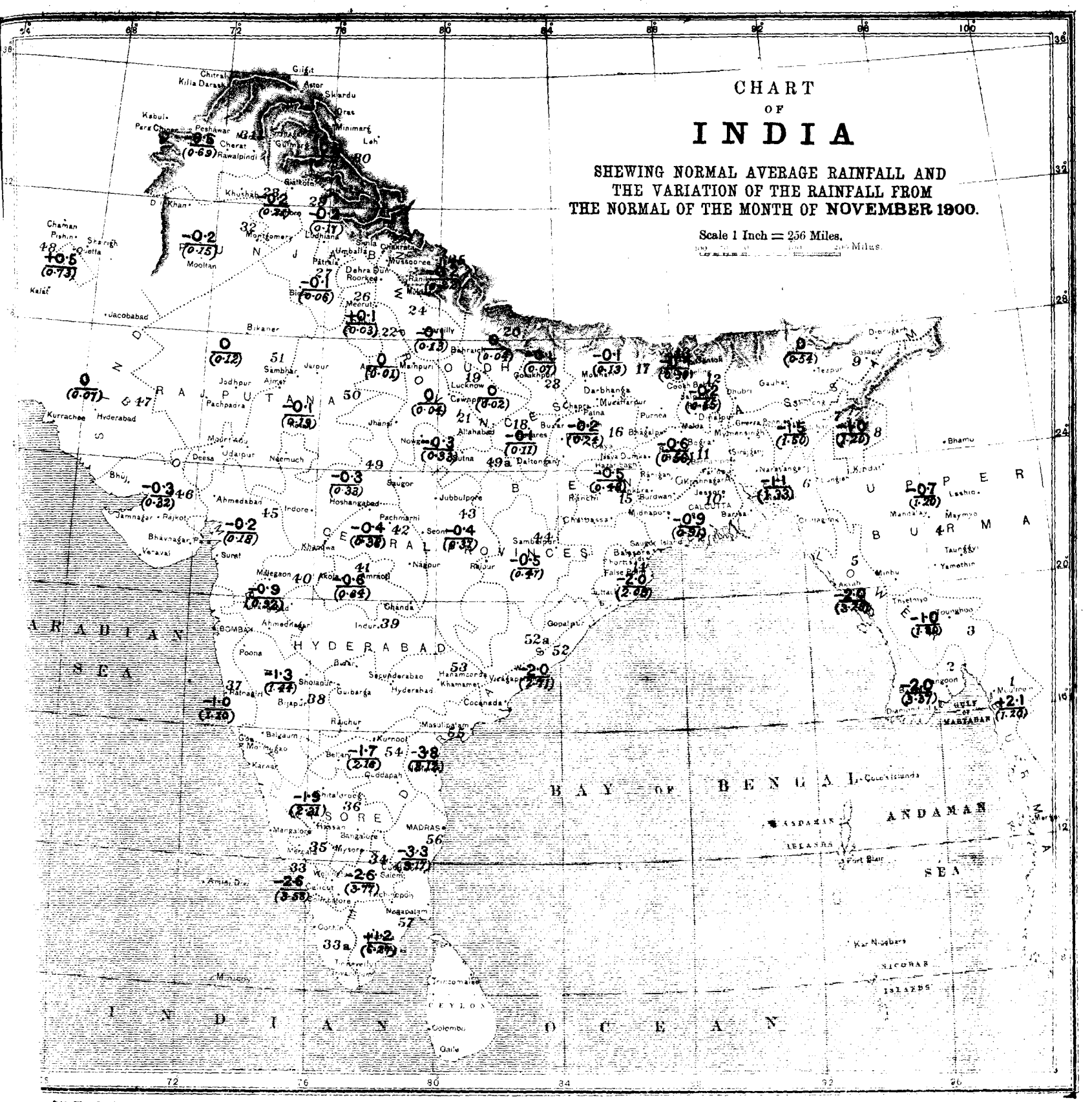
uous lines indicate that the mean daily temperature of month excess by amounts indicated by the attached numbers. Broken ted lines that it was in defect by the amounts indicated by the d numbers. Double lines are the lines of no variation, the broken ing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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 ⅛th of an inch being equal to 100 per cent.

LITHO. BY J.N.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 [illegible] used in the preparation of this Chart are the rainfall returns of all the observatories in India (182 in number), except those at the [illegible] Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of [illegible]ch from those 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 variations of the rainfall of the mouth (to tenths of an inch) from the normal over the whole of India and Burma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish reliable and useful means. 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 referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

Tenasserim
Lower Burma Deltaic
Central do.
Upper do.
Arakan
East Bengal
Assam, Surma
Do. Hills
Do. Brahmaputra
Deltaic Bengal
Central do.
North do.
Bengal Hills
Orissa
Chota Nagpur
South Bihar

17. North Bihar
18. North Western Provinces, East
19. South Oudh
20. North do.
21. North Western 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. North Punjab
32. West do.

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
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
52a. Do. do. do. (a)
53. Hyderabad, South
54. Madras, Central
55. Madras, East Coast, Central
56. Do. East Coast, South
57. Madras, South

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GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, DECEMBER, 1900.

INTRODUCTION.

THIS review of the weather in India during the month of December 1900 is based on observations taken daily at 8 A.M. at 220 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 on the weekly rainfall telegrams received during the month from the District Officers throughout India, 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.

Summary of the chief features of the weather in India during the month of December, 1900.

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, Tinnevelley 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 and 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.

During the month under review these depressions in

Upper India were particularly numerous, and the rainfall of the month was hence excessive over a large part of Northern India. The weather was consequently in marked contrast to that which prevailed during December 1899 when the weather throughout the Indian region was quieter and more settled than usual. There was no cyclonic storm during the month over the Bay area, but between the 1st and the 25th there were frequent showers over the south of the Peninsula and Ceylon, so that probably up to the latter date the final withdrawal of the retreating south-west monsoon current, from the south of the Bay, had not taken place.

At the commencement of the month the pressure conditions were approximately normal, though a slight deficiency of pressure was reported over North Bombay. The temperature conditions, on the contrary, departed largely from the average, more particularly in the central parts of the country, where, at several stations, the mean temperature was as much as 8° above the normal. This is shown below :—

STATION.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of 1st December 1900.
	°
Amraoti	+9·6
Jaipur	+9·1
Malegaon	+8·6
Khandwa	+8·4
Saugor	+8·0

On the other hand, the mean temperature was considerably below the normal over parts of Burma, and slightly below the normal over Ceylon. In the latter area, as well as over the south of the Peninsula, rain was falling, but the amounts were not large, as is shown below :—

DISTRICT.	STATION.	Rainfall during 24 hours preceding 8 A.M. of 1st December 1900.
		Inches.
TANJORE	Neidavasal	3·75
	Nannilam	3·60
	Mayavaram	3·52
	Shiyali	3·00
	Tranquebar	2·37
TRAVANCORE STATE	Tamaracolum	2·26
	Rajakamangalam	2·18
CEYLON	Trincomalee	1·74
	Colombo	1·20

Between the 1st and the 4th no important change in the general conditions occurred, and the principal feature in the weather of these four days was the large excess of temperature over the central parts of the country. The following table shows the variations of the day and night temperatures from the normal for the various stations at which the mean temperature was in great excess on each day from the 1st to the 4th :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature of date.	Minimum temperature of date.	Mean temperature of date.
		°	°	°
1st December	Amraoti	+ 5·5	+13·6	+ 9·6
,, ,,	Jaipur	+ 4·4	+13·8	+ 9·1
,, ,,	Malegaon	+10·7	+ 6·4	+ 8·6
,, ,,	Khandwa	+ 7·4	+ 9·3	+ 8·4
,, ,,	Saugor	+ 5·8	+10·1	+ 8·0
2nd ,,	Indore	+ 7·4	+13·7	+10·6
,, ,,	Khandwa	+ 7·6	+12·3	+10·0
,, ,,	Malegaon	+ 9·9	+ 9·6	+ 9·8
3rd ,,	Khandwa	+ 8·9	+20·2	+14·6
,, ,,	Malegaon	+10·7	+17·0	+13·9
,, ,,	Jubbulpore	+ 8·7	+14·6	+11·7
,, ,,	Indore	+ 8·0	+14·3	+11·2
,, ,,	Hoshangabad	+ 7·0	+15·2	+11·1
4th ,,	Malegaon	+ 8·5	+15·1	+11·8
,, ,,	Seoni	+ 9·0	+14·1	+11·6
,, ,,	Jubbulpore	+ 9·3	+13·0	+11·2
,, ,,	Khandwa	+ 8·1	+13·9	+11·0

On the 5th temperature fell rapidly over Baluchistan, Rajputana and Gujarat, and the mean temperature was in large defect in Baluchistan. A cold wave subsequently advanced into North-West India and travelling eastward advanced as far as North Bihar, by the 8th, after which it began to contract and to retreat again towards the north-west. During the existence of this cold wave the mean temperature was reduced to below the normal all over North-West India. The following table gives comparative data of temperature for the different divisions of Northern India and for Baluchistan from the 6th to the

11th, showing the advance and retreat of the cold wave :—

PROVINCE OR DIVISION	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	6th December.	7th December.	8th December.	9th December.	10th December.	11th December.
	°	°	°	°	°	°
Baluchistan . . .	−7·1	−3·8	−3·3	−1·9	−0·9	+3·2
Sind	−3·0	−3·5	−3·7	−3·4	−2·0	−3·0
Gujarat . . .	+1·1	+1·1	+2·3	+2·4	−0·2	−0·7
Rajputana . . .	−1·5	−1·6	+0·3	+2·0	+2·7	+1·8
Punjab . . .	−1·6	−1·8	−1·2	−2·4	−1·2	+2·3
North-Western Provinces and Oudh.	+0·9	−1·1	+0·3	+1·7	+4·4	+4·2
Bihar	+2·8	+1·4	+1·0	−0·3	+2·0	+2·6

While the above-mentioned changes were in progress over Northern India, a very shallow barometric depression appeared over the Gulf of Cambay and Gujarat on the 6th and 7th. This depression, which throughout was exceedingly shallow and ill-defined, apparently passed into Central India and the north of the Central Provinces during the next few days and occasioned a few light showers in Rajputana and Central India on the 7th and 8th, and in the Central Provinces and North-Western Provinces on the 10th, of which the following were the more important amounts :—

DISTRICT OR STATE.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KOTAH . . .	Sangod . . .	7th December.	0·55
	Baran . . .	" " .	0·35
	Khanpur . . .	" " .	0·32
KARAULI . . .	Machilpur . . .	8th " .	0·41
DAMOH . . .	Damoh . . .	10th "	1·74
HOSHANGABAD . .	Pachmarhi . . .	" " .	1·17
NARSINGHPUR . .	Mohpani . . .	" " .	1·05
BETUL . . .	Shahpur . . .	" " .	0·88
SAUGOR . . .	Saugor . . .	" " .	0·82
JUBBULPORE . .	Jubbulpore . . .	" " .	0·68
SEONI . . .	Lakhnadon . . .	" " .	0·61
HOSHANGABAD .	Hoshangabad . .	" " .	0·58
BETUL . . .	Betul	" " .	0·55
HOSHANGABAD .	Sohagpur . . .	" " .	0·52
HAMIRPUR . .	Hamirpur . . .	" " .	0·93
FATEHPUR . .	Fatehpur . . .	" " .	0·80
CAWNPORE . .	Bhognipur . . .	" " .	0·60
	Ghatampur . . .	" " .	0·52

The cloudy weather, which accompanied these showers, occasioned very high night temperatures over the central parts of the country. The following statement gives the day and night temperature variations for the various stations at which temperature was in greatest excess on each day from the 7th to the 11th :—

DATE.	STATION.	VARIATION FROM NORMAL OF		
		Maximum temperature, of date.	Minimum temperature, of date.	Mean temperature, of date.
		°	°	°
7th December . .	Khandwa . .	+9·2	+15·7	+12·5
8th " . .	Nagpur . . .	+8·6	+13·8	+11·2
9th " . .	Khandwa . .	+8·4	+14·9	+11·7
10th " . .	Do. . .	+9·4	+13·4	+11·4
11th " . .	Do. . .	+6·9	+14·6	+10·8

On the 11th a rapid recovery of temperature occurred in the North Punjab and a brisk rise in Burma. The recovery in the Punjab quickly extended and the area of deficient temperature in the north-west contracted, so that from the 13th to the 18th, the mean temperature was above the normal in almost all divisions. The following gives comparative data for all divisions for these six days :—

PROVINCE OR DIVISION	VARIATION FROM NORMAL OF MEAN TEMPERATURE OF 24 HOURS PRECEDING 8 A.M. OF					
	13th December.	14th December.	15th December.	16th December.	17th December.	18th December.
	°	°	°	°	°	°
Burma . . .	+2·3	+3·1	+3·8	+5·1	+1·9	+2·9
Assam . . .	+1·7	+1·6	+1·2	+2·9	+1·3	+3·0
Bengal . . .	+1·8	+1·6	+3·3	+4·0	+4·0	+3·3
Orissa . . .	+2·2	+0·7	+1·6	+1·4	+1·1	+1·0
Bihar	+3·3	+3·2	+2·9	+2·2	+3·1	+2·9
Chota Nagpur . .	+4·4	+2·7	+3·2	+2·0	+1·3	+1·3
North-Western Provinces and Oudh.	+7·6	+7·4	+1·8	+2·0	+2·7	+2·7
Punjab . . .	+2·9	+2·1	+1·0	+2·1	+2·8	+2·4
Sind	−1·3	−0·2	+0·4	+1·9	+3·8	+2·2
Rajputana . . .	+7·1	+0·8	−1·5	−0·4	+1·4	+4·2
Gujarat . . .	+6·1	+5·3	+2·6	+0·5	+2·9	+4·4
Central India . .	+8·3	+7·4	+3·4	+1·6	+2·9	+4·6
Central Provinces .	+6·0	+5·2	+4·5	+4·0	+3·5	+3·9
Berar	+5·6	+3·8	+3·8	+4·7	+4·4	+3·3
West Coast . .	+4·5	+4·5	+3·2	+2·3	+3·0	+2·9
Bombay Deccan . .	+6·2	+4·8	+3·3	+3·0	+2·7	+3·0
Mysore . . .	+3·0	+0·8	+2·1	+2·3	+1·4	+4·5
Madras Coast . .	+2·2	+1·4	+1·3	+1·2	+2·0	+3·5
Madras Deccan . .	+2·8	+3·2	+1·4	+1·0	+1·5	+3·1
South India . .	+2·3	−0·2	+0·7	+0·8	+2·9	+4·7

It will be observed from the preceding table that throughout the above period the greatest excess was steadily reported from the central districts.

On the 11th, 12th, 13th, 14th and 18th rain occurred in Madras, the following having been some of the principal amounts :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Chingleput	Madurantakam	11th December	2·85
	Uttramerur	" "	2·65
	Kovelong	" "	2·43
Travancore State	Shertalley	12th "	3·05
	Chengannur	" "	2·64
Nellore	Kota	" "	2·21
	Tada	13th "	4·30
	Sulurpeta	" "	4·00
South Arcot	Tittagudi	" "	3·16
Chingleput	Ponneri	" "	3·08
Travancore State	Padmanabhapuram	" "	3·00
Nellore	Rapur	" "	2·87
Trichinopoly	Ariyalur	" "	2·85
Chingleput	Kattur	" "	2·83
	Tiruvallur	" "	2·70
North Arcot	Arcot	" "	2·50
Tanjore	Shiyali	18th "	2·32
	Mayavaram	" "	2·28
South Arcot	Tittagudi	" "	2·15
	Cuddalore	" "	2·12

Though these amounts were not generally heavy, yet the effect of this rainfall can be traced in the temperature changes over the Madras districts shown in the preceding table.

On the 16th and 17th the weather became disturbed in Persia and a storm advanced thence into North-West India. This storm occasioned rain and snow in Baluchistan and Kashmir on the 18th, and rain on the plains of North-West India on the 19th. This precipitation was accompanied and followed by a rapid fall of temperature in Baluchistan and North-West India, thus reducing temperature to below the normal in the north-west. The following gives comparative temperature data for Baluchistan and North-West India from the 19th to the 21st in illustration;—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	19th December.	20th December.	21st December.
	°	°	°
Baluchistan	−5·1	−4·9	−3·3
Sind	−4·3	−3·3	−1·0
Gujarat	+2·8	−0·7	−1·6
Rajputana	+5·2	+0·3	−2·4
Punjab	−0·1	−0·7	−0·5
North-Wesetrn Provinces and Oudh	+3·1	+2·0	+0·2

This reduction of temperature did not, however, last long. A recovery appeared in the North Punjab on the 21st and extending quickly practically blotted out the low temperature area by the 23rd, on which day the mean temperature was above the normal almost everywhere. This is shown below :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 23rd Dec.	Mean minimum temperature, 23rd Dec.	Mean daily temperature, 23rd Dec.
	°	°	°
Burma	+0·7	+1·1	+0·9
Assam	+1·4	+1·2	+1·3
Bengal	+2·5	+1·2	+1·9
Orissa	+3·2	+5·6	+4·4
Bihar	+2·0	+2·4	+2·2
Chota Nagpur	+3·7	+6·2	+5·0
North-Western Provinces and Oudh	−1·8	+4·2	+1·2
Punjab	−5·9	+8·0	+1·1
Sind	−5·1	+8·6	+1·8
Rajputana	−1·3	+6·3	+2·5
Gujarat	+2·8	+5·1	+4·0
Central India	+2·0	+7·0	+4·5
Central Provinces	+5·3	+9·2	+7·3
Berar	+7·7	+11·0	+9·4
West Coast	+2·3	+2·1	+2·2
Bombay Deccan	+6·7	+9·4	+8·1
Mysore	+1·7	0	+0·9
Madras Coast	+2·0	+1·5	+1·8
Madras Deccan	+3·8	+3·4	+3·6
South India	+1·8	−2·4	−0·3

On the 20th and 21st a fresh storm appeared over Persia. This storm entered the West Punjab on the morning

of the 22nd. Rain and snow were reported from Baluchistan and Kashmir on the 23rd, from Baluchistan, Kashmir and the Punjab on the 24th and from the North-Western Provinces on the 25th. In consequence temperature began to fall over North-West India on the 24th, and another cold wave advanced eastward across Northern India. The progress of this cold wave is shown in the following table which gives comparative temperature data for Baluchistan and all the divisions of Northern India from the 24th to the end of the month :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	24th Dec.	25th Dec.	26th Dec.	27th Dec.	28th Dec.	29th Dec.	30th Dec.	31st Dec.
	°	°		°	°	°	°	°
Baluchistan	−3·3	−3·9	−3·8	−2·8	−1·7	+0·1	+1·5	−3·6
Sind	−1·9	+0·1	+1·5	−1·6	−0·7	+0·9	+1·4	−5·2
Gujarat	+4·2	+1·2	−1·6	−0·4	−1·8	−2·0	−0·9	−0·9
Central India	+6·9	+5·6	0	0	−1·8	−4·0	−2·5	+1·8
Rajputana	+2·7	−3·6	−2·9	−3·6	−4·0	−6·3	−2·0	−4·8
Punjab	+1·2	−1·3	−1·7	−4·0	−3·3	−3·1	−1·7	−1·5
North-Western Provinces and Oudh.	+3·1	+0·8	−0·6	−0·2	−2·3	−4·0	−3·8	−3·6
Bihar	+2·3	+3·6	+0·9	+0·8	+0·7	−0·4	−4·8	−4·9
Bengal	+2·7	+3·4	+2·3	+4·0	+3·7	+2·7	+1·3	−0·7
Assam	+1·4	+1·8	+3·3	+1·4	+1·8	+0·4	−0·8	−1·1

On the 29th the rise in the rear of the cold wave appeared over the Indus Valley, but on the 30th and 31st a fresh storm occasioned a fresh fall of rain over North-West India and of snow and rain over the surrounding mountains. Consequently temperature fell again, the recovery noticed on the 29th and 30th ceased, and on the 31st a fresh reduction of temperature had taken place over North-West India. The preceding table consequently shows first the appearance of the principal cold wave in North-West India on the 24th and its extension eastward ; secondly the appearance of the warm wave in its rear on the 29th and 30th ; and thirdly the disappearance of this warm wave under the influence of a fresh fall of temperature in the extreme north-west.

The passage of this cold wave across Northern India exercised only a slight influence on the high temperature area over the central parts of the country and the Peninsula, but the advance had the effect of transferring this area somewhat to the eastward and southward of the position it occupied before the appearance of the wave. This transference is shown by the following statement, which gives, for each day from the 24th to the 31st, variation data for the three stations at which the excess of the mean temperature was greatest :—

Date.	Station.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of date
		°
24th December	Malegaon	+12·0
	Khandwa	+11·8
	Indore	+11·0
25th "	Jubbulpore	+12·2
	Khandwa	+9·5
	Akola	+9·3
26th "	Malegaon	+9·2
	Chanda	+8·8
	Bijapur	+8·7
27th "	Malegaon	+10·1
	Chanda	+9·7
	Akola	+9·5
28th "	Sambalpur	+8·9
	Bijapur	+8·4
	Balasore	+8·3
29th "	Chanda	+8·9
	Bijapur	+8·5
	False Point	+8·4
30th "	Akola	+9·1
	Malegaon	+8·6
	Chanda	+8·6
31st "	Akola	+11·5
	Khandwa	+9·5
	Raipur	+9·4

A few light showers of rain fell in Madras on the 24th and 25th, but the showers were neither heavy nor general and their effect on temperature was unimportant. The following gives temperature data for the Madras divisions from the 23rd to the 26th in illustration :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	23rd December.	24th December.	25th December.	26th December.
	°	°	°	°
Madras Coast	+1·8	+2·7	+2·3	+1·5
Madras Deccan	+3·6	+2·2	+3·2	+5·0

The most marked features of the meteorology of the month were hence (1) the excess of rain on the plains of North-West India, the considerable excess of rain and snow over the surrounding hill districts and in Baluchistan and Persia, and the deficiency of rain in Madras ; (2) the deficiency of temperature over North-West India and its excess elsewhere—more particularly across the head of

the Peninsula; and (3) an excess of vapour in the air (as shown by the records of the absolute humidity), which appeared to be general throughout nearly the whole country.

Pressure.—The mean pressure of the Indian land area was 0·012″ above the normal average of the month.

Relatively to this general condition of pressure the barometer, on the mean of the month, read below the average over the west and head of the Peninsula, the South Gangetic Plain, Central India, Rajputana and Gujarat. The local defect was generally small, but was considerable (more than 0·04″) at Surat and Bhavnagar.

Relatively to the general condition pressure was in slight to moderate excess over the east of the Peninsula (Negapatam +·025″ and Masulipatam +·028″) and in slight or trifling excess over the greater part of Burma and of Bengal, the North Gangetic Plain, the Punjab and the Indus Valley.

The vertical pressure anomalies were generally, though not universally, slightly negative except in the Eastern Himalayas where they were positive.

The following table gives comparative data showing the amount of variation in the eleven meteorological provinces of India:—

METEOROLOGICAL PROVINCE.	Variation from normal of mean 8 A.M. pressure of December 1900.	Pressure anomaly, December 1900.
	″	″
Burma Coast and Bay Islands	+·021	+·009
Burma Inland	+·011	—·001
Assam	+·013	+·001
Bengal and Orissa	+·018	+·006
Gangetic Plain and Chota Nagpur	+·016	+·004
Upper Sub-Himalayas	+·023	+·011
Indus Valley and North-West Rajputana	+·016	+·004
East Rajputana, Central India and Gujarat	—·006	—·018
Deccan	+·004	—·008
West Coast	+·003	—·009
South India	+·020	+·008

Temperature.—The variations of the mean temperature conditions from the normal were large. In portions of North-West India, the heat, on the mean of the month, was less than usual owing to abnormally unsettled weather, but in all other parts of the country the heat was excessive. This excess of heat was greatest over the central parts of the country where fine, but slightly cloudy, weather had been accompanied with a considerable excess of the day temperature and a large excess of night temperature.

The mean maximum or day temperature was in slight to considerable defect over North-West India, the deficiency exceeding 4° at Dera Ismail Khan (—4°·5), Montgomery (—4°·8), Ludhiana (—4°·1), Sirsa(—4°·5) and Delhi (—4°·4). Over the remainder of India the mean maximum or day temperature was in excess, the excess having been greatest in a broad band stretching from Gujarat and Khandesh in the west to Upper Burma in the east. The largest variations within this band were reported from the central parts of India and the Deccan where Malegaon reported an excess of 7°·8, Akola of 6°·6, Khandwa of 6°·4, and Nagpur of 5°·6. The excess was also considerable to large locally in Mysore.

The minimum or night temperature of the month averaged slightly below the normal over North Bengal and part of Lower Burma as well as at most of the Himalayan hill stations, but the deficiency was everywhere small and unimportant. Over the whole of the remainder of the Indian region the mean night temperature was in excess. The excess was greatest and very large over the central parts of the country. The following table shows the large excess existing over the Central Provinces, Central India Berar, Khandesh and the Bombay Deccan:—

PROVINCES OR DIVISIONS.	STATION.	MEAN MINIMUM TEMPERATURE. Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
		°	°	°
CENTRAL PROVINCES.	Khandwa	59·7	48·9	+10·8
	Chanda	61·4	51·1	+10·3
	Jubbulpore	54·9	45·2	+ 9·7
	Hoshangabad	59·0	50·7	+ 8·3
	Nagpur	61·1	53·3	+ 7·8
	Seoni	56·4	49·0	+ 7·4
	Raipur	60·3	53·3	+ 7·0
	Sambalpur	59·8	53·8	+ 6·0
CENTRAL INDIA	Sutna	54·4	46·2	+ 8·2
	Nowgong	53·5	45·7	+ 7·8
	Indore	56·1	48·9	+ 7·2
BERAR	Akola	59·4	50·0	+ 9·4
	Amraoti	62·0	55·4	+ 6·6
KHANDESH	Malegaon	59·5	50·3	+ 9·2
	Surat	62·4	56·8	+ 5·6
	Ahmednagar	56·2	51·5	+ 4·7
BOMBAY (DECCAN)	Bijapur	63·3	56·9	+ 7·1
	Sholapur	63·2	56·9	+ 6·3
	Poona	58·1	53·8	+ 4·3

The mean temperature of the month was lower than usual over the Western desert and part of Gujarat. The deficiency was generally small and, with the doubtful exception of Bikaner, did not amount to 2° anywhere. The excess, on the contrary, was large generally, and within an area including the whole of the central parts of the

country and the Deccan was very large. This is shown in the following table:—

STATION.	MEAN DAILY TEMPERATURE.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	°	°	°
Khandwa	73·9	65·3	+8·6
Malegaon	75·3	66·8	+8·5
Akola	74·0	66·0	+8·0
Ghanda	74·1	66·3	+7·8
Nagpur	73·5	66·8	+6·7
Jabbulpore	67·3	60·6	+6·7
Raipur	72·1	65·8	+6·3
Seoni	69·2	63·1	+6·1
Bijapur	75·9	69·9	+6·0
Amraoti	74·5	68·6	+5·9
Hoshangabad	70·3	64·7	+5·6
Indore	69·3	63·7	+5·6
Sholapur	76·1	70·9	+5·2
Sambalpur	71·6	66·5	+5·1
Surat	76·9	71·8	+5·1

The mean temperature was lower than usual at most of the northern hill stations, but was higher than usual at the hill stations in the centre and south.

The following table gives comparative temperature data of the month for the eleven meteorological divisions:—

METEOROLOGICAL PROVINCE.	VARIATION OF ACTUAL FROM NORMAL OF		
	Mean maximum temperature, December 1900.	Mean minimum temperature, December 1900.	Mean daily temperature, December 1900.
	°	°	°
Burma Coast and Bay Islands	+0·9	+1·7	+1·4
Burma Inland	+1·9	+2·6	+2·3
Assam	+1·7	+1·0	+1·4
Bengal and Orissa	+2·3	+1·8	+2·1
Gangetic Plain and Chota Nagpur.	+0·9	+3·6	+2·3
Upper Sub-Himalayas	−2·8	+4·1	+0·7
Indus Valley and North-West Rajputana.	−3·2	+2·1	−0·6
East Rajputana, Central India and Gujarat.	−0·1	+4·2	+2·1
Deccan	+4·5	+6·9	+5·7
West Coast	+1·3	+2·9	+2·1
South India	+2·3	+2·0	+2·2

Winds.—Weaker winds than usual prevailed during December 1900 in the Bay Islands, Burma, and Orissa and on the whole the directions were somewhat more easterly than the normal. In Bengal the winds were almost exactly normal, while in Bihar and the North-Western Provinces the direction was slightly more northerly than the average. In the Punjab and Sind the wind velocity was low and both in Sind and Rajputana the direction exhibited an increased amount of easting. The winds were unsteady over the west of the Peninsula and the Central Provinces and Berar; and in the Deccan, Berar and the Central Provinces the winds had an abnormal southerly component. In Madras the winds were steady and except on the coast were somewhat stronger than usual. At Zanzibar the wind was unusually southerly.

Humidity.—The variations of the mean humidity conditions of the month from the normal were considerable to large. Over Burma and part of North-East India the air was drier than usual—more particularly at Diamond Island and Port Blair 5°/₀—but over nearly the whole of Northern India from Bihar and Chota Nagpur westward to the Indus the air was damper than usual, the excess having been most marked over the Central and Southern Punjab (Lahore +16°/₀), and Upper Sind (Jacobabad +16°/₀). At Karrachee there was a considerable local deficiency of humidity. Over the Peninsula the variations of humidity were irregular. There was a deficiency over Berar and the greater part of the Deccan (Sholapur −9°/₀) but in Southern India some of the stations reported an excess and some a deficiency of humidity. The following table gives variation data of the mean aqueous vapour pressure and the mean humidity of nine meteorological provinces for the month of December 1900:—

METEOROLOGICAL PROVINCE.	MEAN ABSOLUTE HUMIDITY.		MEAN RELATIVE HUMIDITY.	
	Average actual, December 1900.	Variation of actual from normal, December 1900.	Average actual, December 1900.	Variation of actual from normal, December 1900.
	"	"	%	
Burma Coast and Bay Islands.	·704	−·006	69	−5
Bengal and Orissa	·521	+·034	71	−2
Gangetic Plain and Chota Nagpur.	·394	+·049	68	+5
Upper Sub-Himalayas	·324	+·044	72	+10
Indus Valley and North-West Rajputana.	·286	+·009	57	+4
East Rajputana, Central India and Gujarat.	·298	+·035	48	+6
Deccan	·392	+·038	49	−1
West Coast	·635	+·026	66	−3
South India	·535	+·039	65	−1

Cloud.—The mean cloud amount of the month was more or less in excess over Baluchistan and nearly the whole of Northern India. The amount of the excess decreased from west to east, the variations ranging from +2 5 at Quetta, Jacobabad and Lahore and +2·9 at Meerut to +0·1 at Darbhanga. The cloud amount was also more or less in excess at all the hill stations. Cloud was in defect, on the mean of the month, over the Burma coast, the Bay area, and the east and centre of the Peninsula, the deficiency having been most marked at Diamond Island (—1·2) and Sholapur (—1·2). At Bombay, over the south of the Peninsula and in parts of Burma the cloud amount was in excess, but by small amounts. The following table gives variation data of the mean cloud amount of nine meteorological provinces for the month of December 1900:—

Meteorological Province.	Mean cloud Amount.	
	Average actual, December 1900.	Variation of actual from normal, December 1900.
Burma Coast and Bay Islands	3·5	+0·2
Bengal and Orissa	1·8	—0·4
Gangetic Plain and Chota Nagpur	2·6	+1·1
Upper Sub-Himalayas	4·7	+2·3
Indus Valley and North-West Rajputana	4·4	+1·9
East Rajputana, Central India and Gujarat	3·2	+1·3
Deccan	2·4	+0·1
West Coast	1·6	—0·1
South India	4·3	+0·3

Rainfall.—The rainy unsettled weather which prevailed over Persia, Baluchistan and Afghanistan during November extended into Northern India during December. A series of storms entered North-West India from the westward during the month under review and passing eastward occasioned an excess of rain all over Northern India as well as at some central stations. The excess was great over Rajputana, the Punjab and the North-Western Provinces and was absolutely greatest over the hill division of the Punjab. This excess of rainfall did not, however, extend beyond West Bengal, and Bengal Assam and Burma had less rain than usual during the, month. Over the west of the Peninsula the rainfall was, short and large parts of the Bombay Presidency were practically rainless. On the other hand, the retreating south-west monsoon over the Bay brought up about the normal amount of rain and the Madras coast (except the north division) and the interior of Madras received about the normal amount. The following gives comparative rainfall data of the eleven meteorological provinces of the empire:—

Meteorological Province.	Rainfall.			
	Mean actual for December 1900.	Mean normal, for December.	Variation of actual from normal, December 1900.	Percentage variation from normal
	Inches.	Inches.	Inches.	
Burma Coast and Bay Islands.	1·39	0·98	—0·19*	—19
Burma Inland	0·30	0·56	—0·26	—46
Assam	0·36	0·40	—0·03	— 8
Bengal and Orissa	0·07	0·23	—0·16	—70
Gangetic Plain and Chota Nagpur.	0·82	0·22	+0·62*	+282
Upper Sub-Himalayas	1·57	0.45	+1·15*	+256
Indus Valley and North-West Rajputana.	0·61	0·16	+0·45	+281
East Rajputana, Central India and Gujarat.	0·50	0·15	+0·40*	+267
Deccan	0·22	0·47	—0·24*	—51
West Coast	0·43	0·72	—0·29	—40
South India	1·97	2·66	—0·69*	—26

* 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 1st column. The sum of the figures in columns 2 and 3 will therefore not agree with the figures in column 1.

Atmospheric Pressure.

The mean pressure of the Indian land area for the month of December 1900 was 0·012″ above the normal. In the preceding year the mean pressure of December was 0·006″ above the normal and there was a marked difference in the weathers of the two months, December 1899 having been drier and December 1900 wetter than usual.

The variations of pressure from the normal were gene-

rally similar to those of December 1896. The most marked feature in the variations of the month under review was the area of relatively low pressure over Kathiawar, Bombay, and parts of Central India and of the Central Provinces, with its centre over the Gulf of Cambay. The local anomalies in December were generally moderate to small. Negative anomalies were reported from the west of the Peninsula, Gujarat, Rajputana, the whole of the central parts of the country and the South Gangetic Plain. They were largest and more than 0·02″ in amount over part of North Bombay and at some places in Rajputana and Central India. This is shown below:—

STATION.	Variation from normal of mean 8 A.M. pressure of December 1900.	Pressure anomaly, December 1900.
	″	″
Surat	—·032	—·044
Bhavnagar	—·029	—·041
Veraval	—·025	—·037
Ajmer	—·017	—·029
Neemuch	—·016	—·028
Malegaon	—·014	—·026
Deesa	—·013	—·025

Pressure was also in local defect at Dera Ismail Khan, along the foot of the Eastern Himalayas and in Central Burma. The anomalies in these areas were small, as is shown by the following table:—

AREA.	STATION.	Variation from normal of mean 8 A.M. pressure of December, 1900.	Pressure anomaly December, 1900.
		″	″
PUNJAB	Dera Ismail Khan	+·010	—·002
NORTH BENGAL	Darbhanga	+·005	—·007
	Dinajpur	+·010	—·002
ASSAM	Dhubri	+·003	—·009
	Sibsagar	+·009	—·003
BURMA	Minbu	+·002	—·010
	Yamethin	+·007	—·005

Over the remainder of India pressure, relatively to the general condition, was in excess, but the anomalies were generally small and only exceeded 0·02″ locally at the following stations:—

STATION.	Variation from normal of mean 8 A.M. pressure of December, 1900.	Pressure anomaly, December, 1900.
	″	″
Sialkot	+·038	+·026
Masulipatam	+·037	+·025
Negapatam	+·037	+·025

The above shows that in general the pressure anomalies were slight and the only important departures from the normal were shown over Gujarat and Kathiawar where the negative anomalies were larger and more marked than the anomalies in other parts of the country. They were apparently due to local disturbances of pressure which have been a marked feature of this area during the present cold weather.

Pressure at the level of the hill stations in India was generally in excess. At Quetta, however, the pressure, on the mean of the month, was in slight defect, and at Mount Abu which station was within the area of negative anomalies noticed above, pressure was also in defect, the deficiency having been considerable and greater than at the neighbouring plains stations. At Leh (in Ladakh) and Srinagar (in Kashmir) pressure was also in slight defect. At all the remaining hill stations the pressure, on the mean of the month, was above the normal. The excess was generally about the same as the excess at the neighbouring plains stations and the vertical anomalies were hence generally small, though in the North-East Himalayan region they were moderate. The following data show the vertical pressure anomalies:—

HILL STATION.	Variation of actual from normal pressure, December 1900.	PLAIN STATION.	Variation of actual from normal pressure, December 1900.	Vertical pressure anomaly, (Hill-Plain).
	″		″	″
Quetta	—·011	Jacobabad	+·028	—·039
Leh	—·013	Lahore	+·021	—·034
Murree	+·012	Peshawar	+·013	—·001
Simla	+·009	Ludhiana	+·028	—·019
Chakrata	+·026	Roorkee	+·025	+·001
Ranikhet	+·039	Bareilly	+·020	+·019
Darjeeling	+·053	Dhubri	+·003	+·050
Mount Abu	—·032	Deesa	—·013	—·019
Pachmarhi	+·006	Hoshangabad	+·009	—·003
Wellington	+·020	Coimbatore	+·026	—·006

The vertical pressure anomalies were hence generally negative except in the Eastern Himalayan region. The vertical anomalies were, however, generally small, except in the case of Quetta Jacobabad and Leh—Lahore where they were considerable. This distribution of pressure in the vertical direction usually coincides with wetter and more disturbed weather in Northern India :—

Barometric depressions and cyclonic storms of the month.

During the month under review the weather was quiet over the Bay area and no cyclonic storm of any importance was developed, but over North-West India and the countries to the westward the weather was feebly disturbed during the month and a number of very shallow, but not unimportant, depressions affected those areas.

At the commencement of the month, pressure was highest in the North Punjab and lowest in Malabar, and was fairly normal except over part of North Bombay where it was in slight to moderate defect. At the same time the temperature was very high all over the central parts of the country. These conditions held and the chief features of the pressure distribution remained unchanged until the 7th when pressure became low, relatively to the normal, over North Bombay. A very shallow depression was shown over North Bombay and the south of Rajputana on this day whence it drifted very slowly north-westward or north-north-westward through Rajputana and disappeared on the 10th when the barometer rose briskly all over North-West India. The depression had occasioned light to moderate showers over Central India, the Central Provinces and the North-Western Provinces.

On this day the 10th, the sky became overcast and the weather showery at Teheran and light cloud was reported from Bushire. Hence conditions were feebly unsettled in Persia, but nothing followed and the weather remained quiet though slightly clouded and occasionally showery in North-West India until the 17th. On the 13th the weather again became unsettled in Persia where the sky was overcast and the barometer falling. On the following day, the 14th, moderate to heavy rain was reported from Persia and the fall of the barometer had continued and extended to Baluchistan. Showery weather and cloudy to overcast skies continued over the Persian and Baluchistan areas on the 15th and 16th; and on the 17th rain commenced to fall in Baluchistan and snow in Kashmir. On the 18th, the sky was overcast all over North-West India and light showers had been received in the West Punjab while rain continued in Baluchistan and snow in Kashmir. The depression apparently entered North-West India on this day, but proved to be a very shallow and ill-defined disturbance. On the 19th the depression lay over Eastern Rajputana and the adjacent districts; and light to moderate rain had been received in the Upper India plains and Baluchistan, and rain and snow at the north-western hill stations. The depression apparently filled up during the day.

On the 20th unsettled conditions were again signalled over Persia. The barometer had fallen rapidly over the Persian Gulf district and rain was reported from Bushire. The disturbance advanced eastward during the day and commenced to affect the weather and pressure in Baluchistan on the morning of the 21st. On the 22nd the depression was entering North-West India. Chaman and Quetta had received showers of rain and the sky was cloudy to overcast over the Punjab and Rajputana. The depression advanced through the Punjab on the 23rd, but it was at this time a very shallow, ill-defined depression and occasioned only light rain though the sky in its neighbourhood was densely overcast. On the following day the barometer fell rapidly over North-West India. The depression over the Punjab intensified at the same time that another depression appeared over Rajputana. In consequence conditions became very unsettled over North-West India with rain and snow at the hill stations and rain on the plains. On the 25th pressure had increased briskly to rapidly in the north-west and the two depressions had disappeared, but rain had again fallen over the Punjab and the North-Western Provinces.

On the 25th conditions again became unsettled in Persia where the barometer was falling more or less rapidly and rain had commenced. On the 26th the storm which had occasioned these unsettled conditions in Persia was entering Baluchistan where the sky was cloudy to overcast but the weather still dry. By the morning of the 27th the depression had reached Western Rajputana, but here it filled up without affecting the weather to any important extent.

On the 29th pressure was falling briskly and was considerably below the normal around the north-east of the Arabian Sea and a shallow depression was apparently developed there. This depression apparently advanced eastward into the Central Provinces on the 30th where it intensified and became a well-defined disturbance with pressure nearly 0·02″ below the normal within its central area. This storm occasioned showers of rain all over the Gangetic Plain while at the same time rain was falling over North-West India and rain and snow on

the North-West hills from an ill-defined depression lying over the West Punjab and shown chiefly by a slight deficiency of pressure.

The principal feature of the barometric depressions of the month has been their number and their generally feeble effect on the pressure. A certain number of these depressions has apparently been developed over the north-east angle of the Arabian Sea and Kathiawar whence they have moved, in some cases eastward through Khandesh into the Central Provinces, and in other cases northward or north-north-westward through Rajputana into the Punjab.

In addition a series of small and feeble disturbances have advanced from Persia through Baluchistan into North-West India where they have appeared as feeble ill-defined depressions. But while the effect of these depressions has been but slight on barometric pressure their effect on the weather has been much more marked, and wide-spread showers have in some cases accompanied the appearance of a disturbance which has failed to make any but the faintest impression on the pressure distribution.

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.

Wana (*1*) The Political Officer, Southern Waziristan, reports as follows :—

On December 2nd snow fell to a depth of two inches on Kurdeghar and Karbuna hills, and on the 18th snow fell to a depth of six inches on the Kurdeghar hill.

On the 23rd and 24th snow fell to an average depth of two feet on the Kurdeghar, Ghurlama, Gurgura, Naree and Kashmirkar hills, and on the 25th light showers of snow to about two inches in depth were received on the Kurdeghar and Karbuna hills.

On the 30th and 31st a heavy fall of snow occurred when the following amounts were received :—

Kurdeghar	5 feet
Ghurlama	4 "
Gurgura	3 "
Naree	2 "
Lema	1 foot
Khuzmasar	3 feet
Karbuna	2 inches
Kashmirkar	2 feet

Snow remained for the whole month on the undermentioned hills :—

Marwattai,	11,000 feet	3½ inches
Kanigorum,	6,500 "	3 "
Pirghal,	11,000 "	6 "

The snowfall of the month under review has been much heavier than that of previous Decembers.

Dera Ismail Khan (*2*).—The Deputy Commissioner reports as follows :—

Snow fell on the following peaks to a depth of 33 feet and 3 inches. The falls occurred on the 19th and 20th and between the 23rd and 31st December :—

1. Kat,
2. Opashta.
3. Takht Suleman.
4. Muza Garh.
5. Nawa Tri.
6. Murmuzh.

Snow fell continuously during the last week.

Kurram (*3*).—The Civil Surgeon, Parachinar, reports as follows :—

December 2nd to 4th.—Snow fell down to 12,000 feet on the SufedKoh.

" *11th and 12th.*—Snow fell above 11,900 feet on the Suted Koh.

" *15th and 16th.*—Snow fell down to 5,600 feet close to the station.

" *17th and 18th.*—Quarter inch snow fell at Parachinar.

" *22nd.*—Snow fell to 5,600 feet.

" *23rd.*—Two inches and a half snow at Parachinar.

" *24th and 25th.*—Half an inch snow at Parachinar.

" *26th.*—One inch snow at Parachinar.

" *29th.*—Two inches snow at Parachinar.

" *30th.*—One inch snow at Parachinar.

The snowfall of the month has been more than last year.

Killa Drosh (*4*).—The following falls of snow were reported from this station :—

2nd December.—Slight snowfall on tops of mountains

12th " Heavy snowfall on tops of all mountains.

15th " Heavy snowfall on Sahari hills and tops of mountains.

16th December.—Slight snowfall on tops of mountains.

17th „ Slight snowfall on tops of mountains.

18th „ Slight snowfall on tops of mountains.

22nd „ Heavy snowfall on all mountains and 1½ inches of snow measured on parade ground.

23rd „ Heavy snowfall on all the mountains and 2½ inches of snow measured on parade ground.

II.—KASHMIR AND PUNJAB HIMALAYAS.

Leh (*1*).—Early on the 19th snow fell to a depth of 1½ inches and on the 27th December about ½ inch snow fell.

Between these two falls and after the second fall the greater part of the snow disappeared from the ground. There were frequent snow storms on the surrounding hills down to about 13,000 feet, and on December 29th the observer found 6 inches of snow lying at 13,000 feet.

Gilgit (*2*).—The snowfalls were as follows in the neighbourhood of this station:—

3rd December.—Snow fell down to 6,000 feet.

19th „ Snow fell down to 6,000 feet.

30th „ Snow fell down to 5,500 feet.

31st „ Snow at Gilgit.

Chamba (*3*).—The Deputy Conservator of Forests sends the following report:—

The following snowfalls were reported.

DATE.	Kalatop 7,500.	Surnsahi-galla.	Barmaur 5,000.	Ulak 5,000.	Chitrari 5,000.	Dareri 2,500.	Chamba 2,500.	Bhandal 6,000.	Duir.	Tisa.	Alwas.	Kangu.	Chatri.
	′ ″	′ ″	′ ″	′ ″	″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″	′ ″
2nd December .	...	...	...	...	...	...	...	...	...	...	...	...	0 ½
13th „ .	0 3	...	1 6	1 5	0 3	...	...	...	...	...	0 1½	0 3	0 2
18th „ .	1 0	...	0 5	0 3	...	...	...	0 1½	0 1½	...	0 6	0 7	0 6
19th „ .	...	...	1 2	1 0	...	...	...	...	...	...	...	...	...
22nd „ .	...	...	1 0	0 2	...	...	...	...	...	...	...	...	...
23rd „ .	...	...	1 0	0 9	...	...	...	...	...	...	0 4	0 8	0 8
24th „ .	1 6	0 3	2 0	2 0	1 6	0 7	0 2	...	...	...	2 9	1 6	2 1
24th and 25th „ . .	...	...	...	...	...	...	...	0 9½	0 8	1 1	0 4	0 11	0 3
25th „ .	...	...	...	...	0 4	...	...	...	...	...	0 11	0 10½	0 7
26th „ .	2 6	0 4½	...	...	...	...	...	...	...	...	0 5	0 4	0 4
26th and 27th „ . .	...	...	...	...	...	...	...	0 6½	0 5	...	...	...	...
31st „ .	5 0	0 5	0 10	0 8	0 6	...	...	0 4	0 2	0 2	0 3	0 6	0 5
TOTAL .	10 3	1 ½	7 11	6 3	2 7	0 7	0 2	1 9½	1 4½	1 3	5 7½	5 7½	5 ½

On the 31st December there were 8 feet of snow at Kalatop, 3 inches at Surkhigalla, 2 feet 5 inches at Barmaur, 2 feet at Ulansa, 9 inches at Chitrari, one foot at Bhandal and 5 inches at Duir.

The snowfall commenced very early on the higher elevations and extended to the lower hills down to 2,500 feet.

Simla (*4*). The Deputy Conservator of Forests, Bashahr Division, reports as follows:—

December	*3rd*	Snow fell to	9,000 feet	4 inches.
„	*14th*	„	7,000 „	8 „
„	*18th*	„	7,500 „	8 „
„	*19th*	„	5,750 „	9 „
„	*21st*	„	10,000 „	6 „
„	*22nd*	„	7,000 „	8 „
December	*23rd*	Snow fell to	5,750 „	10 inches.
„	*24th*	„	5,750 „	10 „
„	*25th*	„	5,750 „	1 „
„	*26th*	„	10,000 „	2 „

All passes were closed during the month and the depth of snow on the passes over 12,000 feet was estimated at from 15 to 20 feet.

III.—NORTH-WESTERN PROVINCES HIMALAYAS.

Garhwal (*1*).—The Deputy Commissioner reports as follows:—

Snow fell throughout the second fortnight of the month, but more or less intermittently, the more considerable falls having been on the 19th, 24th and 31st when the snowline descended to about 6,500 feet in the middle por-

tions of the district. The depth of the snowfalls varied from 1 inch to 4 feet.

The snowfall in the month under review was heavier than for the same month in previous years.

Almora (2) The Deputy Commissioner reports as follows :—

The snowfall was as follows :—

MALLA JOHAR.

Peak of Utadhura.

13th December	4 feet
17th and 18th December	4 „
24th December	2 „
30th and 31st December	6 „
	16 feet

MALLA DANPUR.

Peaks of Pindari, Kaphini and Kantela.

14th December	2½ feet
18th and 19th December	1½ „
23rd December	3 „
	7 feet

BYANS, CHANDAS AND DARMA.

14th December	1 foot
24th „	1½ feet
25th „	1 foot
31st „	1 „
	4½ feet

The accumulation of snow at the close of the month was :—on Utadhura, 15 feet ; Ralam Dhura, 8 feet ; Pindari, Kaphini and Kantela, 7 feet.

The snowfall was greater than in December 1899.

Summary of special Storm Reports.

Hailstorms and thunderstorms are of occasional occurrence in Northern and Central India during the cold weather. The following are the only storms reported during December 1900 :—

2nd.—A sharp squall with light snow and rain passed over Srinagar between 2 P.M. and 4 P.M.

9th.—A dust and thunderstorm of some intensity passed over Allahabad at 9 P.M. The storm is stated to have passed over a wide area, many districts in the neighbourhood of Allahabad experiencing it.

A very heavy duststorm passed over Hoshangabad giving 0·58″ of rain and some hail. The storm commenced at 3 P.M. and lasted about half an hour.

A duststorm passed over Saugor between 2-20 and 2-45 P.M. and showers of rain fell in the evening.

Pachmarhi experienced a duststorm at 4-19 P.M. lasting eleven minutes.

12th.—A local storm passed over Salem between 3 and 3-40 P.M., followed by rain.

13th.—A thunderstorm was experienced at Simla. It commenced at 2-45 P.M. from S. W. and continued till 3-20 P.M. Light rain fell and the wind was strong.

24th.—A thunderstorm passed over Allahabad commencing at 8 P.M. Light rain commenced at 9 P.M. and the wind was strongest between midnight (24th) and 1 A.M. (25th).

30th and 31st.—A thunderstorm was reported at Allahabad giving heavyish rain.

A hailstorm occurred at Kasba Garoth in the Bhanpura district of the Indore State on Friday, the 7th December, about 4 P.M. The storm was accompanied with lightning and heavy rain which lasted for five minutes The storm covered an area of 20 square miles and travelled from west to east. The size of the hail stones ranged between maize and betelnut and no damage was occasioned.

Hailstorms passed through the Parganas Jawad and Agar in Malwa Prant, Central India, but no appreciable injury to crops was reported.

Hailstorms passed over Jaipur (Rajputana) on the 12th and 13th and on the 23rd and 24th of December The storms lasted from one to ten minutes and the hail stones were small.

A hailstorm was experienced in the Jorhat sub-division of Assam on the 25th December. It lasted from ten to fifteen minutes and the hail stones were the size of plums and cotton seeds.

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

Arabian Sea.—Ordinary north-east monsoon winds prevailed generally over the whole of the Arabian Sea throughout the month, except in the north-east angle where the winds were variable on some occasions. Winds

were more or less above their normal intensity from the 3rd to the 20th and again on the 24th, 25th, 27th and 28th. They were strongest on the 6th, 8th and the 28th when they averaged 4·2 in force and feeblest on the 23rd (2·6). The mean wind force for the month was 3·5, or 0·2 above the normal intensity of the month. Weather was generally quiet and settled, though in the north-east there occurred light showers and squalls on several occasions. In the Red Sea the wind was stronger and steadier than the average, but the direction was approximately normal.

Bay of Bengal.—Ordinary north-east winds obtained steadily over the Bay area during the month. Winds were weaker than usual from the 1st to the 7th, from 19th to 21st, and from the 23rd to the 30th. They were practically identical with the normal on the 11th and 15th and were more or less above their normal intensity during the remainder of the month. The winds were strongest on the 9th and 12th when they averaged 4·1 in force and feeblest on the 5th when they averaged only 2·3, or 0·9 below the normal intensity of the month. The mean wind force for the whole Bay area was 3·1, the normal strength being 3·2. Weather was quiet and settled throughout the month over the Bay area, and no disturbance of any consequence was experienced.

Equatorial Belt.—So for as can be judged from the scanty data available it appears that conditions were nearly normal over this region.

Temperature of the Air.

The mean temperature of the month was above the normal over by far the greater part of India, but was in slight defect over the Western desert and about normal over the Gangetic Plain.

The mean maximum temperature of the month was below the normal over North-West India, a line running from Rajkot (Kathiawar) to Lucknow, separating the area of deficient temperature from that of excess. The variations from the normal were considerable over a large part of North-West India and generally exceeded 2° over Baluchistan, Sind, Gujarat, Western Rajputana, the west of the North-Western Provinces and the Punjab. The deficiency was absolutely greatest over the South and West Punjab and Baluchistan where it exceeded 4°. The following gives comparative data for the stations within these areas:—

Province or Division.	Station.	Mean maximum temperature.		
		Actual, December 1900.	Normal December.	Variation of actual from normal, December 1900.
		°	°	°
West Punjab	Montgomery	67·8	72·6	−4·8
	Dera Ismail Khan	68·8	73·3	−4·5
South Punjab	Sirsa	70·4	74·9	−4·5
	Delhi	69·9	74·3	−4·4
	Ludhiana	67·2	71·3	−4·1
Baluchistan	Quetta	52·3	57·1	−4·8

Over the whole of the remainder of India and over Burma the day temperature, on the mean of the month, was in excess. The excess was slight and less than 2° in amount over the east of North-Western Provinces, North and Central Bengal, the Assam Valley, Central and Lower Burma, and the south of the Peninsula. It was more than 2° over other parts of the country. The excess was absolutely greatest in Khandesh and the west of the Central Provinces, but was more than 4° over the whole of the head of the Peninsula and in part of the Deccan. The following gives comparative data for this hot area:—

Stations.	Mean maximum temperature.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	°	°	°
Malegaon	91·0	83·2	+7·8
Akola	88·6	82·0	+6·6
Khandwa	88·1	81·7	+6·4
Nagpur	85·9	80·3	+5·6
Raipur	83·8	78·3	+5·5
Poona	88·7	83·4	+5·3
Amraoti	86·9	81·7	+5·2
Chanda	86·8	81·6	+5·2
Bijapur	88·4	83·6	+4·8
Seoni	81·9	77·2	+4·7
Surat	91·3	86·7	+4·6
Secunderabad	86·1	81·6	+4·5
Ahmednagar	87·1	82·7	+4·4
Hyderabad (Deccan)	85·7	·6	+4·1
Sambalpur	83·4	79·3	+4·1
Sholapur	89·0	84·9	+4·1

In addition the mean maximum temperature was 4° or more in excess of the normal in parts of Mysore and at

one or two stations in Lower and South-East Bengal. The following gives data for these stations :—

STATION.	MEAN MAXIMUM TEMPERATURE. Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	°	°	°
Chitaldroog	85·9	80·9	+5·0
Bellary	89·7	85·3	+4·4
Chittagong	82·3	77·9	+4·4
Calcutta	80·2	76·1	+4·1
Saugor Island	79·8	75·8	+4·0

The highest temperatures of the month were recorded about the following dates in the different provinces :— In Burma between the 10th and the 20th; in most parts of Bengal during the first week of the month; in the North-Western Provinces in the first fortnight of the month; in the Punjab and Rajputana during the first few days of the month; in Bombay during the first half of the month; in the Central Provinces in the first week and in Madras about the middle of the month.

Within the area of large excess of the mean maximum temperature, noticed above, abnormally high readings were recorded at several stations, and in one or two cases these maxima were higher than any previously recorded in December. The following gives data :—

STATION.	Highest maximum temperature recorded in December 1900.	Date on which recorded.	Highest maximum temperature recorded in December previous to 1900.	Year in which recorded.
	°		°	
Surat	96·2	4th	97·2	1899
Malegaon	94·5	27th	98·4	1899
Ahmedabad	93·2	2nd and 5th	96·2	1899
Bellary	93·0	29th	93·7	1877
Poona	92·5	1st	95·0	1896
Bijapur	92·2	22nd	91·7	1896
Kurnool	92·2	29th	93·2	1893
Sholapur	91·7	21st and 29th	93·7	1896
Amraoti	91·2	5th	92·7	1896
Nagpur	91·1	5th	92·1	1896 and 1899
Cuddapah	90·7	29th	93·6	1891
Ahmednagar	90·4	1st	90·8	1896
Secunderabad	90·1	21st	91·6	1899
Raipur	89·3	16th	88·8	1898
Hyderabad (Deccan)	88·9	21st	89·4	1899
Belgaum	87·3	1st and 21st	88·6	1876

The following were the highest maximum temperatures recorded in each province together with the highest maxima previously registered at the recording station :—

PROVINCE OR DIVISION.	STATION.	Highest maximum temperature recorded in December 1900.	Date on which recorded.	Highest maximum temperature recorded in December previous to 1900.	Year in which recorded.
		°		°	
BURMA	Rangoon	93·1	16th	98·2	1890
ASSAM	Silchar	86·5	13th and 16th	87·0	1887
BENGAL	Midnapur	86·8	2nd	90·3	1896
ORISSA	Cuttack	87·9	7th	90·7	1896
BIHAR	Gaya	83·3	5th	86·4	1875
CHOTA NAGPUR	Chaibassa	86·8	7th	88·2	1890
N.-W. P. AND OUDH.	Jhansi	86·7	13th	91·2	1899
PUNJAB	Delhi	79·7	12th	85·2	1878
	Sirsa	79·7	13th	88·3	1899
SIND	Kurrachee	88·9	3rd	90·4	1899
RAJPUTANA	Deesa	91·6	1st and 2nd	95·6	1899
GUJARAT	Surat	96·2	4th	97·2	1899
CENTRAL INDIA	Indore	87·8	5th	90·7	1896
CENTRAL PROVINCES.	Khandwa	92·2	5th and 6th	99·7	1875
BERAR	Akola	91·9	5th and 7th	97·8	1896
WEST COAST	Ratnagiri	95·9	7th	97·4	1896
BOMBAY DECCAN	Malegaon	94·5	27th	98·4	1899
MYSORE	Chitaldroog	88·6	22nd and 26th	87·6	1896
MADRAS COAST	Masulipatam	88·5	4th	90·0	1897
MADRAS DECCAN	Bellary	93·0	29th	93·7	1877
SOUTH INDIA	Salem	92·7	28th	94·4	1878

The mean minimum temperature of the month was in slight to large excess of the normal except at a few stations in North Bengal and Assam and in Lower Burma. In these two areas the mean night temperature was in defect, but the deficiency was very slight, as is shown below :—

PROVINCE.	STATION.	MEAN MINIMUM TEMPERATURE. Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
		°	°	°
ASSAM	Dhubri	54·8	55·9	−1·1
NORTH BENGAL	Dinajpur	50·9	51·3	−0·4
	Darbhanga	53·7	54·0	−0·3
BURMA	Toungoo	61·1	62·6	−1·5
	Rangoon	67·4	67·7	−0·3

Over the whole of the remainder of India and over Burma, as well as in Ceylon and Baluchistan, the mean minimum or night temperature was in excess. This excess was small over North-East India, the south of the Peninsula and the Indus Valley, but like the maximum variations was large over the central parts of the country and across the head of the Peninsula as well as in the North Punjab. The excess was more than 4° over the greater part of the North-Western Provinces, Rajputana, Central India, Gujarat, the Deccan, the Central Provinces, South-West Bengal and Orissa and was absolutely greatest at the stations for which comparative data are given below:—

Station.	Mean minimum temperature.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	°	°	°
Khandwa	59·7	48·9	+10·8
Chanda	61·4	51·1	+10·3
Jubbulpore	54·9	45·2	+ 9·7
Akola	59·4	50·0	+ 9·4
Malegaon	59·5	50·3	+ 9·2
Hoshangabad	59·0	50·7	+ 8·3
Sutna	54·4	46·2	+ 8·2

The above shows that the excess was greater in the case of the night temperature than in the case of the day, and that the area of greatest excess in the night temperature lay somewhat to the eastward of the area of greatest excess in the day temperature.

The excess in North-West India was greatest at Rawalpindi +7°·7 (if the observations at that station be correct) and was more than 4° at the following stations:—

Station.	Mean minimum temperature.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	°	°	°
Nagpur	61·1	53·3	+7·8
Nowgong	53·5	45·7	+7·8
Indore	56·1	48·9	+7·2
Bijapur	63·3	56·2	+7·1
Raipur	60·3	53·3	+7·0
Ajmer	50·8	44·3	+6·5
Sholapur	63·2	56·9	+6·3
Sambalpur	59·8	53·8	+6·0
Jhansi	56·5	50·6	+5·9
Chaibassa	57·8	52·0	+5·8
Surat	62·4	56·8	+5·6
Ranchi	54·8	49·6	+5·2
Cuttack	63·4	58·3	+5·1
Allahabad	52·5	47·4	+5·1
Lucknow	50·7	45·6	+5·1
Benares	52·7	47·8	+4·9
Agra	53·0	48·2	+4·8
Ludhiana	48·0	43·3	+4·7
Secunderabad	61·3	56·6	+4·7
Ahmednagar	56·2	51·5	+4·7
Meerut	48·5	43·9	+4·6
Hyderabad (Deccan)	61·1	56·6	+4·5
Sialkot	46·4	42·0	+4·4
Bareilly	49·7	45·4	+4·3
Lahore	44·7	40·6	+4·1
Neemuch	53·1	49·0	+4·1
Jaipur	52·2	48·1	+4·1

At the majority of the Himalayan hill stations the night temperature, on the mean of the month, was lower than usual by small or moderate amounts, and this was also the case at the southern hill station of Wellington, but at Quetta and at the central hill stations of Mount Abu and Pachmarhi the mean night temperature was in excess—more particularly at Pachmarhi (+7°·9).

The lowest minimum temperatures recorded at the hill stations were not remarkable. The thermometer fell to considerably below zero at some Kashmir stations, and the following low minimum temperatures were recorded during the month. The lowest temperatures previously recorded at these stations are added for comparison:—

Station.	Lowest minimum temperature recorded in December 1900.	Date on which recorded.	Lowest minimum temperature recorded in December previous to 1900.	Year in which recorded.
	°		°	
Dras	−15·9	29th	−26·0	1898
Astor	−3·0	26th	8·0	1898
Minimarg	3·0	29th	−2·0	1898
Leh	8·0	29th	−9·5	1894
Skardu	14·1	28th	8·2	1898
Yatung	14·9	29th	17·4	1894
Kalat	16·6	5th	4·4	1894
Sharigh	18·0	25th and 27th	26·0	1898

The mean temperature of the month was normal or in slight defect over a large part of North-West India due to lower day temperatures than usual, and was normal in part of North-East India due to lower night temperatures than usual. The following gives comparative data for the only stations at which the mean temperature of the month was less than the normal :—

Station.	Mean daily temperature.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	°	°	
Montgomery	56·4	58·2	—1·8
Dera Ismail Khan	55·2	56·9	—1·7
Hyderabad (Sind.)	64·3	65·5	—1·2
Bhuj	67·6	68·7	—1·1
Delhi	60·7	61·4	—0·7
Sirsa	58·1	58·7	—0·6
Kurrachee	68·8	69·0	—0·2

Over the whole of the Peninsula, the central parts of the country, the South Gangetic Plain, West and Deltaic Bengal and Burma the mean temperature exceeded the normal and over the central parts of the country this excess was large to very large. This is shown below—

Station.	Mean daily temperature.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	°	°	
Khandwa	73·9	65·3	+8·6
Malegaon	75·3	66·8	+8·5
Akola	74·0	66·0	+8·0
Chanda	74·1	66·3	+7·8
Nagpur	73·5	66·8	+6·7
Jubbulpore	67·3	60·6	+6·7
Raipur	72·1	65·8	+6·3
Seoni	69·2	63·1	+6·1
Bijapur	75·9	69·9	+6·0
Amraoti	74·5	68·6	+5·9
Hoshangabad	70·3	64·7	+5·6
Indore	69·3	63·7	+5·6
Sholapur	76·1	70·9	+5·2
Sambalpur	71·6	66·5	+5·1
Surat	76·9	71·8	+5·1

At most of the north-west hill stations the mean temperature of the month was in defect, but at Darjeeling and at the central and southern hill stations the heat was slightly to largely in excess of the average.

The following gives the chief features of the temperature conditions of the month :—

(1) The day temperature was in slight to considerable defect over North-West India, and the mean temperature was hence normal or in slight defect over this region.

(2) The night temperature was normal or in trifling defect over parts of North-East India, and the mean temperature of the month in this region was about normal.

(3) Temperature, both by day and night, was more or less above the normal over the remainder of India.

(4) The excess, both by day and night, was large to very large over the central parts of the country where in consequence the mean temperature was in large excess.

The following table gives temperature data for each of the 56 meteorological provinces into which India is divided :—

Province.	Division.	Actual temperature.					Variation from normal of month.		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Burma	Tenasserim	88·1	66·5	77·3	21·5	30·0	+0·9	+1·5	—0·6
	Lower Burma (Deltaic)	86·3	70·2	78·3	16·0	23·4	+0·9	+1·9	—1·0
	Central do.	84·3	60·4	72·4	24·0	33·8	+1·4	+0·7	+0·7
	Upper do.	82·5	59·1	70·8	23·3	31·2	+2·0	+3·0	—0·1
	Arakan	83·9	61·6	72·8	22·3	31·3	+2·0?	—2·8?	+4·8?

Province.	Division.	Actual temperature.					Variation from normal of month		
		Mean maximum.	Mean minimum.	Mean of day.	Mean daily range.	Absolute range.	Maximum.	Minimum.	Daily range.
		°	°	°	°	°	°	°	°
Bengal and Assam	Eastern Bengal	80·5	56·4	68·4	24·1	34·1	+2·1	+1·2	+0·9
	Assam (Surma)	82·3	56·4	69·4	25·9	36·1	+2·8	+1·2	+1·6
	Do. (Brahmaputra)	74·4	54·1	64·3	20·3	29·9	+1·2	+0·9	+0·3
	Deltaic Bengal	80·0	57·2	68·6	22·9	30·2	+3·1	+1·4	+1·7
	Central do.	78·8	56·1	67·5	22·7	30·3	+2·5	+1·8	+0·7
	North do.	77·3	51·3	64·3	26·0	35·2	+1·5	—0·1	+1·4
	Bengal Hills	51·9	28·3	39·8	23·6	36·8	+0·6	—0·5	+1·1
	Orissa	82·7	62·0	72·4	20·8	28·4	+3·2	+4·0	—0·8
	Chota Nagpur	76·9	54·1	65·5	22·8	33·2	+2·4	+4·8	—2·4
	Bihar (South)	76·8	54·2	65·5	22·6	35·9	+1·7	+3·3	—1·6
	Do. (North)	75·8	51·7	63·8	24·1	35·2	+0·7	+0·8	—0·1
North-Western Provinces and Oudh.	North-Western Provinces (East)	75·9	52·6	64·3	23·3	35·9	+0·9	+5·0	—4·1
	Oudh (South)	75·3	50·7	63·0	24·6	40·1	—0·2	+5·1	—5·3
	Do. (North)	74·0	50·4	62·2	23·6	35·6	—0·8	+2·4	—3·2
	North-Western Provinces (Central)	74·5	52·3	63·4	22·2	39·2	—1·9	+4·3	—6·2
	Do. do. (West)	72·7	50·8	61·8	22·0	38·5	—1·8	+4·7	—6·5
	Do. do. (Submontane, East).	74·7	53·2	64·0	21·5	30·8	+0·4	+3·0	—2·6
	Do. do. (Submontane, West).	69·9	47·9	58·9	22·0	37·9	—1·3	+3·1	—4·4
	Do. do. (Hills)	52·1	39·2	45·7	12·9	28·9	—3·2	—1·2	—2·0
Punjab	Punjab, (South-East)	69·9	51·5	60·7	18·4	33·1	—4·4	+3·0	—7·4
	Do. (South)	69·5	46·6	58·1	22·9	37·1	—4·5	+3·4	—7·9
	Do. (Central)	68·4	44·7	56·6	23·7	39·2	—3·1	+4·1	—7·2
	Do. (Submontane)	67·5	40·8	57·2	20·7	35·3	—3·7	+4·6	—8·3
	Do. (Hills)	44·5	27·6	36·1	17·0	38·7	—3·7	—0·3	—3·4
	Do. (North)	64·9	43·1	53·9	21·8	39·9	—2·9	+5·9	—8·8
	Do. (West)	69·1	44·2	56·8	25·0	42·5	—4·2	+1·9	—6·1
Bombay and Malabar Coast Districts (Madras).	Malabar	88·7	73·5	81·1	15·2	22·0	+1·4	+2·5	—1·1
	Madras (South Central)	87·2	67·4	77·3	19·9	29·2	+1·9	+1·7	+0·2
	Coorg	78·5	59·5	69·0	19·0	25·3	+4·0	+1·9	+2·1
	Mysore	83·0	61·2	72·1	21·8	29·2	+3·5	+2·3	+1·2
	Konkan	88·3	71·7	80·0	16·6	24·4	+1·3	+3·1	—1·8
	Bombay Deccan	87·7	61·5	74·6	26·2	34·6	+4·4	+5·3	—0·9
	Hyderabad (North)	86·2	60·8	73·5	25·4	35·0	...	...	...
	Khandesh	89·1	57·9	73·5	31·2	40·6	+6·1	+7·0	—0·9
Central Provinces and Berar.	Berar	87·8	60·7	74·3	27·1	37·9	+6·6	+9·4	—2·8
	Central Provinces (West)	85·2	59·9	72·6	25·3	35·6	+4·9	+9·0	—4·1
	Do. (Central)	81·7	57·4	69·6	24·4	37·2	+4·0	+8·3	—4·3
	Do. (East)	83·6	60·1	71·9	23·6	35·5	+4·8	+6·5	—1·7
Bombay (North)	Gujarat	89·4	62·0	75·7	27·4	37·6	+3·3	+3·8	—0·5
	Kathiawar and Cutch	83·6	57·6	70·7	26·0	40·6	—0·6	+1·4	—2·0
	Sind	76·5	52·3	64·4	24·2	39·8	—2·5	+1·7	—4·2
	Baluchistan Hills	54·5	30·5	42·5	24·0	40·9	—4·1	+2·3	—6·4
Rajputana and Central India.	Central India (East)	77·9	54·3	66·1	23·7	39·3	+1·4	+6·8	—5·4
	Rajputana (East), Central India (West)	76·5	53·4	65·0	23·2	41·5	—1·6	+4·3	—5·9
	Do. (West)	76·6	50·8	63·7	25·7	43·2	—3·1?	—1·2?	—1·9?
Madras	East Coast (North)	82·5	67·3	74·9	15·2	23·4	+2·3	+2·5	—0·2
	Hyderabad (South)	86·7	62·7	74·7	24·1	33·8	+3·7	+4·1	—0·4
	Madras (Central)	89·0	64·8	76·9	24·2	31·2	+3·8	+2·8	+1·0
	East Coast (Central)	85·9	69·3	77·7	16·6	21·8	+2·4	+1·8	+0·6
	Do. (South)	84·5	70·7	77·6	13·8	21·7	+1·2	+1·4	—0·2
	Madras (South)	85·8	71·8	78·8	14·0	20·9	+0·5	+0·8	—0·3

At the commencement of the month the mean temperature was in slight defect over Burma and Bengal, and was normal along the hills and in the North and West Punjab, elsewhere it was above the normal, the excess having been greatest in parts of Rajputana, the Central Provinces, Central India, Khandesh and the Deccan. The following table gives comparative data for Burma and Bengal, and for Rajputana and the central and Deccán divisions to illustrate this distribution :—

Province or Division.	Variation from normal of		
	Mean maximum temperature, 1st December.	Mean minimum temperature, 1st December.	Mean daily temperature, 1st December.
	°	°	°
Burma	+0·5	—1·5	—0·5
Bengal	+0·9	—2·1	—0·6
Orissa	+2·7	+1·6	+2·2
Bihar	+0·6	—0·5	+0·1
Chota Nagpur	+2·6	+2·4	+2·5
Rajputana	+4·8	+6·5	+5·7
Central India	+4·6	+5·9	+5·3
Central Provinces	+4·4	+6·2	+5·3
Berar	+6·0	+10·5	+8·3
Bombay Deccan	+7·1	+4·7	+5·9
Madras Deccan	+3·7	+2·3	+3·0

On the 2nd there was no important change, but on this and the following day snow fell in Kashmir and rain in Baluchistan, and a rapid fall of temperature occurred over the Punjab, Sind and Baluchistan as a result of this precipitation. The following gives comparative data for the 2nd, 3rd and 4th for Baluchistan and North-West India showing this change :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	2nd December.	3rd December.	4th December.
	°	°	°
Baluchistan	+0·4(?)	—5·9	—1·0
Punjab	+3·5	—1·5	+0·2
Sind	+7·4	+3·1	+0·7
Rajputana	+4·8	+5·0	+3·1

On the 3rd a fall of rain occurred over Madras reducing temperature in the South India and Madras coast districts to below the normal. The following gives data for the 3rd, 4th and 5th for the Madras Coast and South India divisions :—

Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of		
	3rd December.	4th December.	5th December.
	°	°	°
Madras Coast	+0·3	—0·1	—0·4
South India	+0·1	+0·2	—1·1

On the 5th a rapid fall of temperature occurred over Baluchistan and North-West India and from that date until the 11th the mean temperature was steadily below the normal in Baluchistan and North-West India. This is shown below :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	5th December.	6th December.	7th December.	8th December.	9th December.	10th December.	11th December.
	°	°	°	°	°	°	°
Baluchistan	—8·0	—7·1	—3·8	—3·3	—1·9	—0·9	+3·2
North-Western Provinces and Oudh.	+1·7	+0·9	—1·1	+0·3	+1·7	+4·4	+4·2
Punjab	—0·2	—1·6	—1·8	—1·2	—2·4	—1·2	+2·3
Sind	—0·9	—3·0	—3·5	—3·7	—3·4	—2·0	—3·0
Rajputana	—0·2	—1·5	—1·6	+0·3	+2·0	+2·7	+1·8
Gujarat	+2·1	+1·1	+1·1	+2·3	+2·4	—0·2	—0·7

During this period the mean temperature was steadily high over the Central parts of the country including in that area the South Gangetic Plain, Central India, the Central Provinces, Berar, Khandesh and the North Deccan. The following gives comparative data for these seven days :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of						
	5th December.	6th December.	7th December.	8th December.	9th December.	10th December.	11th December.
	°	°	°	°	°	°	°
Orissa	+4·0	+6·3	+7·4	+6·9	+4·5	+2·8	+2·2
Chota Nagpur	+5·5	+6·4	+6·3	+5·6	+5·2	+5·6	+5·1
Central India	+6·5	+4·9	+4·0	+4·7	+6·1	+7·4	+6·6
Central Provinces	+9·6	+9·6	+9·1	+8·7	+9·0	+8·6	+6·4
Berar	+10·2	+8·8	+8·7	+8·9	+9·4	+8·4	+5·8
Bombay Deccan.	+5·5	+5·5	+5·5	+5·5	+4·2	+5·7	+5·6

The excess was throughout more marked in the night than in the day temperatures. This is shown in the following table, which gives comparative data of the maximum and minimum temperatures on each day from the 5th to the 11th for those stations at which the variations from the normal were about +12° :—

Date.	Station.	Variation from normal of		
		Maximum temperature of date.	Minimum temperature of date.	Daily temperature of date.
		°	°	°
5th December	Khandwa	+10·1	+15·2	+12·7
	Jubbulpore	+ 8·6	+16·2	+12·4
6th "	Jubbulpore	+ 9·6	+16·6	+13·1
7th "	Khandwa	+ 9·2	+15·7	+12·5
	Chanda	+ 7·6	+16·9	+12·3
9th "	Khandwa	+ 8·4	+14·9	+11·7
10th "	Jubbulpore	+ 8·6	+14·9	+11·8

During the four days from the 5th to the 8th the mean temperature was slightly below the normal over Burma, as is shown below, but on the 9th and 10th a brisk rise occurred over this province :—

Province.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of					
	5th December.	6th December.	7th December.	8th December.	9th December.	10th December.
	°	°	°	°	°	°
Burma	−1·3	−1·1	−0·5	−0·1	+1·3	+3·1

A rapid rise of temperature commenced in the North Punjab on the 11th and quickly extended all over North-West India, and from the 11th to the 14th the mean temperature was excessive in all provinces except Sind, where it remained steadily below the normal. The following gives the variation data of the mean temperature from the normal for all provinces of India from the 11th to the 14th :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of			
	11th December.	12th December.	13th December.	14th December.
	°	°	°	°
Burma	+2·6	+2·0	+2·3	+3·1
Assam	+2·0	+1·0	+1·7	+1·6
Bengal	+2·2	+2·5	+1·8	+1·6
Orissa	+2·2	+3·5	+2·2	+0·7
Bihar	+2·6	+3·9	+3·3	+3·2
Chota Nagpur	+5·1	+4·9	+4·4	+2·7
N. W. P. and Oudh	+4·2	+5·7	+7·6	+7·4
Punjab	+2·3	+3·2	+2·9	+2·1
Sind	−3·0	−1·8	−1·3	−0·7
Rajputana	+1·8	+5·5	+7·1	+0·8
Gujarat	−0·7	+3·8	+6·1	+5·3
Central India	+6·6	+8·6	+8·3	+7·4
" Provinces	+6·4	+5·7	+6·0	+5·2
Berar	+5·8	+6·1	+5·6	+3·8
West Coast	+1·8	+3·8	+4·5	+4·5
Bombay Deccan	+5·6	+6·3	+6·2	+4·8
Mysore	+4·8	+4·7	+3·0	+0·8
Madras Coast	+3·3	+3·3	+2·2	+1·4
" Deccan	+3·5	+4·5	+2·8	+3·2
South India	+3·3	+2·2	+2·3	−0·2

On the 15th the mean temperature fell over the greater part of the country and was reduced to below the normal over Gujarat and Rajputana, but remained excessive in all the other provinces. This area of relatively low temperature disappeared on the 16th, and on the 17th and 18th the mean temperature was above the normal everywhere. This is shown below :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of	
	17th December.	18th December.
	°	°
Burma	+1·9	+2·9
Assam	+1·3	+3·0
Bengal	+4·0	+3·3
Orissa	+1·1	+1·0
Bihar	+3·1	+2·9
Chota Nagpur	+1·3	+1·3
N. W. P. and Oudh	+2·2	+2·7
Punjab	+2·8	+2·4

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 a.m. of	
	17th December.	18th December.
	°	°
Sind	+3·8	+2·2
Rajputana	+1·4	+4·2
Gujarat	+2·9	+4·4
Central India	+2·9	+4·6
„ Provinces	+3·5	+3·9
Berar	+4·4	+3·3
West Coast	+3·0	+2·9
Bombay Deccan	+2·7	+3·0
Mysore	+1·4	+4·5
Madras Coast	+2·0	+3·5
„ Deccan	+1·5	+5·1
South India	+2·9	+4·7

During this period, from the 12th to the 18th, the weather was very feebly disturbed over the central parts of the country. A few light scattered showers occurred which, however, did not seriously affect temperature, but the sky was more or less cloudy throughout, and, as a consequence, the night temperatures recorded were high, though generally less so than during the seven days from the 5th to the 11th. The following gives the two largest variations from the normal in the night temperatures for each 24 hours from the 12th to the 18th:—

Date.	Station.	Minimum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal, of date
		°	°	°
12th December	Khandwa	60·1	48·0	+12·1
	Saugor	63·1	51·0	+12·1
13th „	Khandwa	60·1	48·0	+12·1
	Jubbulpore	54·4	45·8	+8·6
14th „	Khandwa	57·1	48·3	+8·8
	Saugor	59·6	50·8	+8·8
15th „	Khandwa	58·6	48·7	+9·9
	Jubbulpore	56·4	45·9	+9·5
16th „	Khandwa	56·1	49·0	+7·1
	Raipur	59·7	53·9	+5·8
17th „	Khandwa	54·1	48·8	+5·3
	Seoni	54·0	48·9	+5·1
18th „	Saugor	56·6	49·7	+6·9
	Hoshangabad	56·3	49·9	+6·4

Rain commenced in Persia on the 16th and 17th and disturbed weather extended to Baluchistan and Kashmir on the 18th and to the Punjab plains on the 19th. This was accompanied with a rapid fall of temperature over Baluchistan and North-West India on the 19th where temperature was reduced to considerably below the normal. This continued during the 19th, 20th and 21st, as is shown by the following table which gives comparative temperature data for Baluchistan and North-West India:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 a.m. of		
	19th December.	20th December.	21st December.
	°	°	°
Baluchistan	−5·1	−4·9	−3·3
Punjab	−0·1	−0·7	−0·5
Sind	−4·3	−3·3	−1·0
Rajputana	+5·0	+0·3	−2·4
Gujarat	+2·8	−0·7	−1·6

The day temperature was very low over Baluchistan and the Punjab (hills and plains) on the 19th. The following shows the stations at which the deficiency was more than 10°.

Station.	Maximum temperature.		
	Actual, 19th December. 1900.	Normal, 19th December.	Variation of actual from normal, 19th December. 1900.
	°	°	°
Quetta	42·1	57·7	−15·6
Chaman	46·7	60·6	−13·9
Montgomery	58·0	71·5	−13·5
Lahore	58·3	70·6	−12·3
Rawalpindi	54·9	66·6	−11·7
Peshawar	56·3	67·3	−11·0
Dera Ismal Khan	61·8	72·4	−10·6
Mooltan	61·8	72·3	−10·5

In other parts of the Indian region the mean temperature was steadily above the normal throughout these three days.

On the 21st a recovery appeared over the North Punjab and this extended till, by the 23rd, the area of deficient temperature over North-West India had disappeared and the mean temperature was above the normal almost everywhere. The following gives comaprative temperature

data for all provinces for the 24 hours ending at 8 A.M. on the 23rd:—

Province or Division.	Variation from normal of		
	Mean maximum temperature 23rd December.	Mean minimum temperature, 23rd December.	Mean daily temperature, 23rd December.
	°	°	°
Burma	+0·7	+1·1	+0·9
Assam	+1·4	+1·2	+1·3
Bengal	+2·5	+1·2	+1·9
Orissa	+3·2	+5·6	+4·4
Bihar	+2·0	+2·4	+2·2
Chota Nagpur	+3·7	+6·2	+5·0
North-Western Provinces and Oudh	−1·8	+4·2	+1·2
Punjab	−5·9	+8·0	+1·1
Sind	−5·1	+8·6	+1·8
Rajputana	−1·3	+6·3	+2·5
Gujarat	+2·8	+5·1	+4·0
Central India	+2·0	+7·0	+4·5
Central Provinces	+5·3	+9·2	+7·3
Berar	+7·7	+11·0	+9·4
West Coast	+2·3	+2·1	+2·2
Bombay Deccan	+6·7	+9·4	+8·1
Mysore	+1·7	0	+0·9
Madras Coast	+2·0	+1·5	+1·8
Madras Deccan	+3·8	+3·4	+3·6
South India	+1·8	−2·4	−0·3

A fresh storm appeared over Persia on the 20th and the weather became disturbed over North-West India on the 23rd. Snow and rain fell over Baluchistan and Kashmir on the 23rd over the Punjab on the 24th and in the North-Western Provinces on the 25th. This precipitation was accompanied with a brisk fall of temperature over Baluchistan and North-West India and the mean temperature fell to below the normal. This wave of cold extended eastward and reached North-East India by the end of the month. A recovery commenced in the Indus Valley on the 29th, but a fresh fall of rain and snow commencing in Baluchistan and Kashmir on the 30th, the recovery disappeared and a further fall of temperature occurred in the north-west on the 31st. The following gives comparative temperature data for all the different divisions of Northern India and for Baluchistan for the nine days from the 23rd to the 31st:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of								
	23rd December.	24th December.	25th December.	26th December.	27th December.	28th December.	29th December.	30th December.	31st December.
	°	°	°	°	°	°	°	°	°
Bengal	+1·9	+2·7	+3·4	+2·3	+4·0	+3·7	+2·7	+1·3	−0·7
Orissa	+4·4	+4·3	+3·9	+4·4	+5·3	+6·8	+6·6	+3·7	+3·5
Behar	+2·2	+2·3	+3·6	+0·9	+0·8	+0·7	−0·4	−4·8	−4·9
Chota Nagpur	+5·0	+4·8	+5·6	+2·9	+4·3	+5·1	−0·4	+1·2	+1·4
North-Western Provinces and Oudh.	+1·2	+3·1	+0·8	−0·6	−0·2	−2·3	−4·0	−3·8	−3·6
Punjab	+1·1	+1·2	−1·3	−1·7	−4·0	−3·3	−3·1	−1·7	−1·5
Baluchistan	+3·1	−3·3	−3·9	−3·8?	−2·8	−1·7	+0·1	+1·5	−3·6
Sind	+1·8	−1·9	+0·1	+1·5	−1·6	−0·7	+0·9	+1·4	−5·2
Rajputana	+2·5	+2·7	−3·6	−2·9	−3·6	−4·0	−6·3	−2·0	−4·8
Gujarat	+4·0	+4·2	+1·2	−1·6	−0·4	−1·8	−2·0	−0·9	−0·9

The coolest days in the Punjab were the 25th and 26th, in the North-Western Provinces the 28th and in Bihar the 29th. The following shows for each day from the 23rd to the 31st the two plains stations at which the variations from the normal in the maximum temperature were largest:—

Date.	Station.	Maximum temperature.		
		Actual of date.	Normal of date.	Variation of actual from normal of date.
		°	°	°
23rd December	Mooltan	61·3	71·3	−10·0
24th "	Dera Ismail Khan	55·8	71·3	−15·5
	Mooltan	58·3	71·1	−12·8
25th "	"	56·3	71·0	−14·7
	Mainpur	59·3	73·0	−13·7
26th "	Dera Ismail Khan	54·3	71·6	−17·3
	Sirsa	57·3	72·7	−15·4
27th "	Rawalpindi	50·9	64·8	−13·9
	Meerut	59·3	71·3	−12·0
28th "	Delhi	58·2	72·2	−14·0
	Bareilly	57·9	70·9	−13·0
29th "	Delhi	61·7	72·2	−10·5
	Bareilly	60·4	70·8	−10·4
30th "	Allahabad	61·9	73·6	−11·7
	Gorakhpur	61·2	72·7	−11·5
31st "	Lucknow	57·2	73·6	−16·4
	Delhi	57·2	72·8	−15·6

The appearance of this cold wave over Northern India had the effect of displacing the area of greatest excess of temperature further southward and eastward, but in other respects the temperature conditions over the Peninsula and the central parts of the country were practically unaffected by the wave. The following gives comparative temperature data for the Peninsula and central divisions for each day from the 23rd to the 31st :—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of								
	23rd December.	24th December.	25th December.	26th December.	27th December.	28th December.	29th December.	30th December.	31st December.
				°	°	°	°	°	°
Central India	+4·5	+6·9	+5·6	0	0	−1·8	−4·6	−2·5	+1·8
Central Provinces.	+7·3	+7·5	+8·2	+5·4	+5·3	+4·2	+1·3	+2·2	+7·6
Berar	+9·4	+7·2	+8·3	+6·1	+7·8	+6·7	+5·0	+7·2	+9·9
West Coast	+2·2	+1·9	+0·8	+1·0	+1·1	+0·2	+0·5	+1·7	+1·8
Bombay Deccan	+8·1	+5·5	+4·9	+5·6	+5·5	+5·3	+6·5	+5·6	+4·6
Mysore	+0·9	+0·7	+3·6	+5·2	+3·7	+3·2	+3·7	+1·6	+1·7
Madras Coast	+1·8	+2·7	+2·3	+1·5	+1·1	+1·1	+1·8	+2·6	+3·1
,, Deccan	+3·6	+2·2	+3·2	+5·0	+4·0	+4·9	+5·8	+3·4	+2·9
South India	−0·3	+2·5	+2·5	+1·6	+1·3	+1·3	+1·9	+2·9	+1·1

The following table gives the variations of the mean temperature, week by week, during the month and of the whole month :—

Province or Division.	Variation from normal of mean temperature for week ending.				
	8th December.	15th December.	22nd December.	29th December.	For whole month.
	°	°	°	°	°
Burma	−0·9	+2·6	+2·7	+1·3	+1·8
Assam	+0·8	+1·3	+2·2	+1·6	+1·4
Bengal	+0·3	+1·8	+3·1	+3·0	+1·8
Orissa	+4·6	+2·5	+2·5	+5·1	+3·6
Bihar	+1·7	+2·5	+2·6	+1·4	+1·6
Chota Nagpur	+4·8	+4·4	+2·7	+3·9	+3·6
North-Western Provinces and Oudh.	+1·4	+4·7	+1·9	−3·0	+1·6
Punjab	−0·4	+1·1	+1·0	−1·6	−1·0
Sind	0	−1·6	+0·3	0	−0·4
Rajputana	+1·4	+2·6	+1·2	−2·2	+1·4
Gujarat	+2·9	+2·8	+1·2	+0·5	+1·7
Central India	+6·0	+6·8	+3·4	+1·6	+4·1
Central Provinces	+8·9	+6·5	+4·8	+5·6	+6·3
Berar	+8·7	+6·1	+5·3	+7·2	+8·0
West Coast	+1·9	+2·9	+3·0	+1·1	+2·1
Bombay Deccan	+5·8	+5·2	+4·8	+5·9	+5·4
Mysore	+2·5	+2·8	+3·6	+3·0	+2·9
Madras Coast	+0·7	+2·5	+2·5	+1·8	+1·9
Madras Deccan	+2·5	+3·2	+4·2	+4·1	+3·4
South India	−0·2	+1·4	+2·3	+1·5	+1·3

Wind.

The winds were on the whole slightly more easterly than usual in Burma and slightly less easterly at the Bay Islands. This is shown below :—

Station.	Mean wind direction.		
	Actual, December 1900.	Normal, December.	Easterly deflection.
	°	°	
Port Blair	N 45 E	N 58 E	−13
Cocos Island	N 40 E	N 34 E	+ 6
Rangoon	N 64 E	N 41 E	+23
Diamond Island	N 53 E	N 58 E	− 5
Akyab	N 5 E	N 8 W	+13

The velocity at the above stations was generally less than the average while the steadiness was about normal.

At the Bengal stations the wind direction was nearly normal though there was slightly more northing than usual at some stations while both the velocity and steadiness exceeded the average. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Northerly deflection	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°	°			
Chittagong	61	53	+ 8	N 9 W	N 24 W	+15	73	66	+ 7
Calcutta (Alipore)	74	62	+12	N 21 W	N 23 W	+ 2	71	61	+10
Saugor Island.	69	59	+10	N 13 W	N 3 E	+ 3	178	169	+ 9

In Orissa, as in Burma, the direction of the wind, on the mean of the month, was slightly more easterly than the average, while the velocity and steadiness were under the average. The following gives comparative data for Palse Point :—

Station.	Mean steadiness.			Mean wind direction.			Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Easterly deflection.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°				
False Point	48	58	—10	N 43 E	N 32 E	+11	113	151	—38

In West Bengal, except that the direction was a little more northerly than usual, the wind conditions were about the average, but at Allahabad and Dehra-Dun there was an abnormal north-easterly wind considerably stronger than usual at both stations. The following gives comparative data for these stations :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual December 1900.	Normal, December.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°			
Hazaribagh . .	53	56	— 3	N 39 W	N 44 W	124	119	+ 5
Darbhanga . .	39	53	—14	N 69 W	S 81 W	53	49	+ 4
Allahabad . .	26	25	+ 1	N 11 E	N 47 W	83	60	+23
Dehra-Dun . .	21	31	—10	N 40 E	S 75 W	60	17	+43

In the Upper-Sub-Himalayan region the usual light unsteady north-westerly to west-north-westerly winds prevailed. In the Indus Valley the wind varied irregularly from the normal the only important variation having been at Kurrachee, where the wind was more easterly and much steadier than usual. The following gives comparative data for this station :—

Station.	Mean steadiness.			Mean wind direction.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Easterly deflection.
				°	°	
Kurrachee . . .	59	23	+36	N 81 E	N 41 E	+40

In North Rajputana the wind was north-easterly instead of north-north-westerly while in the south of the province the usual north-easterly winds were experienced. This is shown below :—

Station.	Mean wind direction.		
	Actual, December 1900.	Normal, December.	Easterly deflection.
	°	°	
Jaipur	N 48 E	N 19 W	+67
Deesa	N 42 E	N 44 E	—2

The winds were steadier than usual in this province and at Deesa were stronger than usual. The following gives data :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual, percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Jaipur . .	58	24	+34	71	71	0
Deesa	56	50	+ 6	224	194	+30

The following gives mean data for the different divi-

sions of Northern India and for Burma and the Bay Islands :—

PROVINCE OR DIVISION.	MEAN STEADINESS.			MEAN WIND DIRECTION.		MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°			
Bay Islands	79	76	+ 3	N 43 E	N 46 E	121	181	—60
Burma	47	51	— 4	N 41 E	N 32 E	101	129	—28
Bengal	68	58	+10	N 14 W	N 14 W	107	99	+ 8
Orissa	48	58	—10	N 43 E	N 32 E	113	151	—38
Chota Nagpur	53	56	— 3	N 39 W	N 44 W	124	119	+ 5
Bihar	39	53	—14	N 69 W	S 81 W	53	49	+ 4
North-Western Provinces.	31	25	+ 6	N 11 W	N 69 W	40	40	0
Punjab	16	18	— 2	N 43 W	N 26 W	29	40	—11
Sind	36	21	+15	N 64 E	N 13 E	92	128	—36
Rajputana	57	37	+20	N 45 E	N 15 E	148	133	+15

The most marked feature in the winds over the Deccan was the increased amount of southing in the wind's direction over this area. This is shown below :—

STATION.	MEAN WIND DIRECTION.	
	Actual, December 1900.	Normal, December.
	°	°
Belgaum	S 82 E	N 88 E
Sholapur	S 50 E	S 83 E
Poona	S 48 E	N 85 E
Akola	N 77 E	N 61 E
Buldana	S 63 E	N 82 E
Khandwa	S 68 E	N 62 E
Nagpur	S 55 E	N 57 E
Hyderabad (Deccan)	S 61 E	S 72 E

At the same time the velocity was at some stations greater than usual though the direction was generally unsteady. The following gives comparative data of steadiness and velocity :—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Belgaum	68	67	+ 1	251	299	—48
Sholapur	77	66	+11	165	182	—17
Poona	36	54	—18	170	133	+37
Akola	36	57	—21	66	80	—14
Buldana	21	43	—22	162	132	+30
Khandwa	32	42	—10	88	62	+26
Nagpur	18	54	—36	70	83	—13
Hyderabad (Deccan)	55	65	—10	76	81	— 5

The wind was more unsteady than usual also along the West coast. In South India, as over Burma, the wind was abnormally easterly, more particularly at the coast stations. This is shown below :—

STATION.	MEAN WIND DIRECTION.	
	Actual, December 1900.	Normal, December.
	°	°
Salem	N 69 E	N 77 E
Chitaldroog	S 87 E	N 83 E
Bangalore	N 87 E	N 70
Hassan	N 85 E	N 76 E
Mysore	N 88 E	N 80 E
Madras	S 63 E	N 25 E
Bellary	S 71 E	S 86 E

The velocity of the wind in this area varied irregularly from the normal, while, on the whole, the steadiness was in excess of the average, as is shown in the following table:—

STATION.	MEAN STEADINESS.			MEAN WIND VELOCITY IN MILES PER DIEM.		
	Actual, percentage, December 1900.	Normal, percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Salem	77	50	+27	104	92	+12
Chitaldroog	89	82	+ 7	207	199	+ 8
Bangalore	87	84	+ 3	192	116	+76
Hassan	84	82	+ 2	71	95	—24
Mysore	85	84	+ 1	252	261	— 9
Madras	84	79	+ 5	165	178	—13
Bellary	87	69	+18	122	76	+46

The following shows the mean direction, velocity and steadiness of the wind in the different provinces of the Peninsula :—

Province or Division.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°			
Central Provinces.	25	48	—23	S 62 E	N 60 E	79	73	+ 6
Berar . . .	29	50	—21	S 80 E	N 72 E	114	106	+ 8
Bombay Deccan .	60	62	— 2	S 60 E	E.	195	205	—10
West Coast . .	34	56	—22	N 18 W	N 6 E	134	151	—17
Mysore . .	86	83	+ 3	N 89 E	N 77 E	181	168	+13
Madras Deccan .	71	67	+ 4	S 66 E	S 79 E	99	79	+20
„ Coast .	84	79	+ 5	S 63 E	N 25 E	165	178	—13
South India . .	77	50	+27	N 69 E	N 77 E	104	92	+12

At Quetta, probably due to the succession of depressions which entered Baluchistan from the westward, the wind was south-westerly instead of west-north-westerly, but both the steadiness and velocity were low.

The following gives data for this station:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°			
Quetta . .	23	29	—6	S 48 W	N 61 W	41	59	—18

At the Himalayan hill stations the wind's direction, on the mean of the month, varied irregularly from the normal, but on the whole there was increased easting at the majority of the stations. This feature of the wind along the hills is shown in the following table:—

Station.	Mean wind direction.	
	Actual, December 1900.	Normal, December.
	°	°
Leh	S 24 W	S 14 W
Srinagar	N 33 W	S 84 E
Simla	S 74 E	S 11 W
Chakrata	S 69 E	S 64 W
Ranikhet	N 33 E	S 51 W
Katmandu	S 88 W	N 67 W
Darjeeling	S 22 E	N 55 W

The winds were also unusually steady in the hills, but the velocity was in some cases lower than usual. This is shown below :—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Leh . . .	63	38	+25	48	28	+20
Srinagar . .	21	6	+15	62	66	—4
Simla . . .	49	14	+35	67	98	—31
Chakrata . .	21	15	+ 6	181	106	+75
Ranikhet . .	3	23	—20	46	37	+ 9
Katmandu . .	61	47	+14	23	22	+ 1
Darjeeling . .	53	3	+50	58	72	—14

At the central hill stations the winds were stronger and steadier than the average, but the variations of the mean direction of the wind from the normal direction were very irregular. The following gives comparative data :—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°			
Mount Abu . .	5	13	— 8	S 47 W	N 13 E	123	93	+30
Pachmarhi . .	32	21	+11	S 36 W	N 31 E	114	64	+50
Chikalda . .	27	8	+19	S 3 E	S 74 W	135	117	+18

At Wellington the wind conditions were about normal. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°			
Wellington . .	62	61	+1	S 42 E	S 41 E	47	55	−8

At Perim and Aden the winds were stronger and steadier than the average, but the directions were approximately normal. The following gives comparative data of velocity and steadiness:—

Station.	Mean steadiness.			Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Perim	91	83	+8	504	458	+46
Aden	79	71	+8	382	313	+69

There was no information for the Seychelles and Mauritius, but the observations from Zanzibar showed that the wind, on the mean of the month, had been more southerly than usual, but had been lighter than the average and exceedingly unsteady. This is shown below:—

Station.	Mean steadiness.			Mean wind direction.		Mean wind velocity in miles per diem.		
	Actual percentage, December 1900.	Normal percentage, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
				°	°			
Zanzibar . .	14	62	−48	S 6 E	N 35 E	97	152	−55

The following gives comparative data of the mean air movement for the various provinces based on Table I.

Province or Division.	Mean wind velocity in miles per diem.		
	Actual, average December 1900.	Average normal, December.	Variation of actual from normal December 1900.
	°	°	°
Burma	72	82	−10
Assam	43	65	−22
Bengal	41	67	−26
Orissa	86	91	− 5
Bihar	51	38	+13
Chota Nagpur	53	110	−57
North-Western Provinces and Oudh .	36	46	−10
Punjab	46	36	+10
Sind	134	139	− 5
Rajputana	106	84	+22
Gujarat	142	120	+22
Central India	70	91	−21
,, Provinces	72	55	+17
Berar	118	74	+44
West Coast	127	187	−60
Bombay Deccan	154	170	−16
Mysore	182	94	+88
Madras Coast	120	139	+24
,, (Deccan)	163	77	+43
South India	134	101	+33

Humidity and Cloud.

The variations of the mean humidity conditions of the month from the normal were large and strongly marked. The dry area over the Bombay Deccan was shown, as in all the preceding months from the time of the monsoon,

but the deficiency was less than in October and November, the largest variations in that area in December 1900 having been as shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Sholapur . . .	·338	·372	—·034	39	48	—9
Bellary . . .	·438	·467	—·029	51	58	—7

On the other hand, the excess of humidity, which had begun to appear in North-West India in November 1900, continued and intensified during December and a large area of increased dampness was shown over the north-west. The greatest excess was shown over the South and Central Punjab and Upper Sind and at Lahore and Jacobabad this excess amounted to more than 15 per cent. The following gives comparative data for these two stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Lahore . . .	·319	·274	+·045	74	58	+16
Jacobabad . . .	·305	·237	+·068	63	47	+16

The amount of aqueous vapour was somewhat less than usual at Port Blair and Rangoon, and somewhat greater than usual at Diamond Island and Cocos Island, but the mean temperature was in excess at all stations—more particularly at the two last—and the mean relative humidity was below the normal in all parts of this area.

This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual, from normal, December 1900.
	"	"	"	%	%	
Port Blair . . .	·814	·827	—·013	74	79	—5
Rangoon . . .	·626	·651	—·025	68	72	—4
Diamond Island . .	·694	·683	+·011	68	73	—5
Cocos Island . .	·685	·680	+·005	67	71	—4

In Bengal and Orissa the absolute humidity was generally in excess of the average, but the mean temperature here also was in excess and, except at False Point, the relative humidity was below the average. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Calcutta . . .	·464	·432	+·032	66	70	—4
Chittagong . . .	·520	·522	—·002	72	76	—4
Saugor Island . .	·523	·496	+·027	72	73	—1
False Point . . .	·576	·496	+·080	75	74	+1

In the Gangetic Plain and Chota Nagpur the absolute humidity was in excess and the relative humidity was about normal except at Hazaribagh where locally the air was considerably damper than the average. The following gives comparative data for this station :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Hazaribagh . .	·359	·274	+·085	63	50	+13

In Upper India both the absolute and relative humidities were above the normal at all stations, but more particularly so at Lahore, Ludhiana and Jacobabad. The following gives data for the west of the North-Western Provinces, the Punjab and Upper Sind :—

PROVINCE OR DIVISION.	STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
		Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
		"	"	"	%	%	
N.-W. PROVINCES (WEST).	Meerut .	·350	·284	+·066	73	62	+11
PUNJAB . .	Lahore .	·319	·274	+·045	74	58	+16
	Ludhiana .	·332	·277	+·055	74	62	+12
UPPER SIND .	Jacobabad .	·305	·237	+·068	63	47	+16

In Rajputana the humidity was also in excess, though to a less extent than in the Punjab. This is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Jaipur	·323	·271	+·052	57	49	+ 8
Deesa	·272	·254	+·018	39	36	+ 3

At Kurrachee there was a local deficiency of dampness as is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Kurrachee . . .	·305	·368	—·063	45	53	—8

The following gives mean comparative data for Burma, the Bay Islands and the different divisions of Northern India:—

PROVINCE OR DIVISION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal December. 1900.
	"	"	"	%	%	
Bay Islands . . .	·750	·754	—·004	71	76	— 5
Burma	·660	·667	—·007	68	73	— 5
Bengal . . .	·502	·483	+·019	70	73	— 3
Orissa	·576	·496	+·080	75	74	+ 1
Chota Nagpur . .	·359	·274	+·085	65	52	+13
Bihar . . .	·435	·422	+·013	73	73	0
North-Western Provinces.	·339	·297	+·042	69	63	+ 6
Punjab . . .	·300	·259	+·041	70	60	+10
Sind . . .	·305	·302	+·003	54	50	+ 4
Rajputana . . .	·298	·263	+·035	48	42	+ 6

At Nagpur the absolute humidity was largely, and at Poona slightly, in excess of the normal, and notwithstanding the high temperature prevailing, the relative humidity was in some excess. The following gives comparative data for these two stations:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Nagpur . . .	·469	·349	+·120	59	52	+ 7
Poona . . .	·351	·324	+·027	46	43	+ 3

In other parts of the Deccan division, though the absolute humidity (except at Sholapur) was more or less in excess of the normal, the mean temperature largely exceeded the average and the relative humidity was hence in defect of the normal. This is shown below:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Belgaum . . .	·383	·372	+·011	50	50	0
Sholapur . . .	·338	·372	—·034	39	48	—9
Akola	·398	·331	+·067	49	51	—2
Buldana . . .	·339	·324	+·015	43	47	—4
Khandwa . . .	·402	·319	+·083	50	50	0
Hyderabad (Deccan) .	·453	·438	+·015	58	·62	—4

Along the West coast similar conditions obtained, the absolute humidity having been in slight excess, but the relative humidity in defect owing to the prevailing high temperature. The following gives data for Bombay and Karwar:—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Bombay . . .	·633	·615	+·018	66	69	—3
Karwar . . .	·637	·603	+·034	65	67	—2

In Southern India the absolute humidity was generally in excess, but the relative humidity varied irregularly from the normal. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Salem	·620	·589	+·031	67	71	−4
Chitaldroog	·480	·419	+·061	57	56	+1
Bangalore	·478	·455	+·023	68	68	0
Hassan	·457	·452	+·005	64	65	−1
Mysore	·500	·454	+·046	63	62	+1
Madras	·774	·704	+·070	83	79	+4
Bellary	·438	·467	−·029	51	58	−7

The following gives mean humidity data for the different divisions of the Peninsula :—

PROVINCE OR DIVISION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Central Provinces	·436	·334	+·102	55	51	+4
Berar	·369	·328	+·041	46	49	−3
Bombay Deccan	·357	·356	+·001	45	47	−2
West Coast	·635	·609	+·026	66	69	−3
Mysore	·479	·445	+·034	63	63	0
Madras Deccan	·446	·453	−·007	55	61	−6
" Coast	·774	·704	+·070	83	79	+4
South India	·620	·589	+·031	67	71	−4

The lowest humidities recorded on the plains during the month were reported from the Deccan district and North Bombay between the 14th and the 16th, but the readings were nowhere very low and were considerably higher than the lowest recorded in the same area during December 1899. The following gives the lowest readings recorded :—

STATION.	Date.		Lowest humidity recorded during December 1900.
Jamnagar	26th	16 hours	9
Deesa	14th	16 "	12
Sholapur	15th	16 "	13
Belgaum	16th	16 "	15
Mount Abu	9th	10 "	16
Jamnagar	4th	16 "	18
Bikaner	29th	8 "	19
Poona	15th	16 "	19
Buldana	7th	16 "	20

Leh exhibited a slight deficiency of the absolute humidity and a large deficiency of relative humidity and Katmandu reported a slight deficiency in both elements, as is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal December 1900.
	"	"	"	%	%	
Leh	·052	·080	−·028	43	63	−20
Katmandu	·251	·267	−·016	70	73	−3

At the remaining hill stations in the north the absolute humidity was nearly normal, but the mean temperature was in considerable defect and the relative humidity was consequently in excess. The following gives comparative data :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Srinagar	·203	·175	+·028	87	80	+7
Simla	·155	·137	+·018	61	45	+16
Chakrata	·158	·151	+·007	61	51	+10
Ranikhet	·201	·201	0	65	5	+7

At the central hill stations the absolute humidity was in considerable excess so that, though the temperature was above the normal, the relative humidity was more or less excessive. This is shown below :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual, from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Mount Abu . . .	·242	·215	+·027	46	42	+ 4
Pachmarhi . . .	·381	·275	+·106	66	55	+11
Chikalda . . .	·372	·303	+·069	56	51	+ 5

At Wellington the relative humidity was about normal. At Perim the air was much damper than usual, while at Aden the relative humidity was above the normal. The following gives data for these two stations :—

STATION.	ABSOLUTE HUMIDITY.			RELATIVE HUMIDITY.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
	"	"	"	%	%	
Perim	·788	·631	+·157	76	64	+12
Aden	·682	·634	+·048	70	69	+ 1

The mean cloud amount of the month was more or less in excess over the area of increased vapour pressure. The excess was greatest and more than 2 in amount over Baluchistan, Upper Sind, the Punjab, Eastern Rajputana and the west of the North-West Provinces. The following gives comparative data for the stations included within this area :—

PROVINCE OR DIVISION.	STATION.	MEAN CLOUD AMOUNT.		
		Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
NORTH WESTERN PROVINCES WEST.	Meerut . . .	4·7	1·8	+2·9
PUNJAB . . .	Lahore . . .	4·9	2·4	+2·5
	Peshawar . .	5·6	3·5	+2·1
UPPER SIND . .	Jacobabad . .	4·7	2·2	+2·5
BALUCHISTAN . .	Quetta . . .	5·4	2·9	+2·5
RAJPUTANA . .	Jaipur . . .	4·3	2·1	+2·2

Beyond this area and surrounding it was a broad band within which the cloudiness was in excess by 1 or more. The following gives data for the stations within this band :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Allahabad	3·4	1·5	+1·9
Nagpur	3·9	2·3	+1·6
Hazaribagh	3·3	2·1	+1·2
Kurrachee	2·8	1·8	+1·0

The cloud amount was low and below the small normal of the month over the Burma coast, the Bay area, the east of the Peninsula and the Deccan. The deficiency was generally small within this area and exceeded 1, only at the two following stations, for which comparative data are given below :—

STATION.	MEAN CLOUD AMOUNT.		
	Actual, December 1900.	Normal December.	Variation of actual from normal, December 1900.
Diamond Island . . .	2·2	3·4	−1·2
Sholapur	1·7	2·9	−1·2

The remaining stations at which the cloud amount was less than usual were as follows :—

PROVINCE OR DIVISION.	STATION.	MEAN CLOUD AMOUNT.		
		Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
BENGAL . .	Saugor Island	1·7	2·3	−0·6
	Calcutta .	1·5	1·7	−0·2
	Chittagong .	2·1	2·3	−0·2
ORISSA . . .	False Point .	1·7	2·5	−0·8
MADRAS COAST . .	Madras .	5·2	5·4	−0·2
" DECCAN .	Hyderabad (Deccan.)	1·7	2·4	−0·7
MYSORE . .	Bangalore .	3·4	3·9	−0·5
	Chitaldroog .	2·7	3·1	−0·4
BOMBAY DECCAN .	Sholapur .	1·7	2·9	−1·2
	Poona . .	2·0	2·5	−0·5
	Belgaum .	2·4	2·6	−0·2
WEST COAST . .	Karwar .	0·8	1·4	−0·6

Over the head of the Peninsula, over the south of the Peninsula, at the Bay Islands and over part of Burma and of North-East India the cloud amount, on the mean of the month, was in excess, but generally by small and unimportant amounts. This is shown below :—

Province or Division.	Station.	Mean cloud amount. Actual, December 1900.	Normal, December	Variation of actual from normal, December 1900.
Head of the Peninsula.	Khandwa	2·6	1·8	+0·8
	Bombay	2·3	1·8	+0·5
	Deesa	2·0	1·7	+0·3
South of the Peninsula.	Bellary	4·4	3·7	+0·7
	Salem	4·6	4·3	+0·3
	Hassan	4·2	4·0	+0·2
Bay Islands	Port Blair	5·1	4·7	+0·4
	Cocos Island	3·9	3·5	+0·4
Burma	Akyab	3·1	2·3	+0·8
	Rangoon	3·1	2·6	+0·5
North-East India.	Darbhanga	1·0	0·9	+ 0·1

At all the hill stations except at Wellington, in the extreme south, the cloud amount, on the mean of the month, was excessive. The following gives comparative data for those of the hill stations where the excess was 1 or more in amount :—

Station.	Mean cloud amount. Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Srinagar	7·3	5·3	+2·0
Ranikhet	4·6	2·6	+2·0
Pachmarhi	4·0	2·1	+1·9
Simla	5·6	3·9	+1·7
Leh	6·7	5·6	+1·1
Mount Abu	2·7	1·7	+1·0

At Perim and Aden the sky was slightly and at Zanzibar much more cloudy than usual. The following gives data for Zanzibar :—

Station.	Mean cloud amount. Actual, December 1900.	Normal, December.	Variation of actual from normal, December 1900.
Zanzibar	7·4	3·9	+·5

Rainfall.

The rainfall of December 1900 was in excess over the reater part of Northern India but was in defect in North-East India and Burma and over the greater part of the Peninsula. In November the weather had become very unsettled over Persia, Afghanistan, Baluchistan and the hills on the north-west frontier of India, but the fall of rain and snow did not cross the frontier till the commencement of December. During the month under review a series of storms entered North-West India from the westward and passing eastward occasioned an excess of rain all over Northern India. On the other hand, the retreating south-west monsoon had almost entirely withdrawn from the Bay at the end of November, and the rainfall over the Peninsula from the north-east monsoon was lighter than usual during December except along the Madras coast and in the Madras Deccan.

The chief periods of rainfall and of disturbed weather during the month under review were as follows :—

1st.—The 1st and 2nd when snow fell in Kashmir and snow and rain on the North-West Himalayas.

2nd.—3rd when rain fell over South Madras.

3rd.—The 7th and 8th when local showers fell at some central stations.

4th.—The 10th when showers fell over the Central Provinces.

5th.—The 13th and 14th when showers fell over the greater part of Rajputana east and Central India west and of the Central India states.

6th.—The 18th and 19th when snow and rain fell over Baluchistan, Kashmir and the North-West Himalayas and rain on the plains of North-West India.

7th.—The 23rd to the 26th when rain and snow fell in Baluchistan and Kashmir and rain over the Punjab, North-Western Provinces etc.

8th.—The 30th and 31st when snow and rain fell over Baluchistan and Kashmir and rain over North-West India.

The chief abnormal features of the rainfall of the month were :—

(1) The absence of even the small normal rainfall over the west of the Peninsula.

(2) The deficient fall over Burma, Assam and Lower Bengal.

(3) The large excess over Rajputana, Baluchistan, the Punjab, the North-Western Provinces, West Bengal and Central India.

The following table gives comparative rainfall data for the 56 meteorological divisions of the empire :—

Province.	Division.	Number of rainy days. Average actual, December 1900.	Number of rainy days. Average normal, December.	Rainfall. Average actual, December 1900.	Rainfall. Average normal, December.	Rainfall. Variation of actual from normal, December 1900.
				Inches.	Inches.	Inches.
Burma	Tenasserim*	...	...	0	0	0
	Lower Burma (Deltaic)*	...	...	0·02	0·19	−0·17
	Central ditto*	...	...	0·13	0·09	+0·04
	Upper ditto*	...	...	0·19	0·63	−0·44
	Arakan*	...	...	0·30	0·39	−0·09
Bengal and Assam	Eastern Bengal	0	0·4	0·02	0·29	−0·27
	Assam (Surma)*	...	...	0·09	0·68	−0·59
	Do. (Hills)*	...	...	0·16	0·43	−0·27
	Do. (Brahmaputra)*	...	...	0·53	0·39	+0·14
	Deltaic Bengal	0·3	0·3	0·11	0·18	−0·07
	Central do.	0·2	0·2	0·08	0·11	−0·03
	North do.	0·1	0·2	0·03	0·10	−0·07
	Bengal Hills	0·6	0·5	0·21	0·18	+0·03
	Orissa	0	0·5	0·01	0·32	−0·31
	Chota Nagpur	1·4	0·4	1·00	0·23	+0·77
	Bihar (South)	1·6	0·2	0·98	0·15	+0·83
	Do. (North)	0·8	0·3	0·20	0·10	+0·10
North-Western Provinces and Oudh.	North-Western Provinces (East)	2·1	0·4	1·66	0·26	+1·40
	Oudh (South)	2·9	0·6	1·32	0·41	+0·91
	Do. (North)	1·9	0·6	0·80	0·38	+0·42
	North-Western Provinces (Central)	3·8	0·5	1·85	0·35	+1·50
	Do. do. (West)	3·9	0·5	1·31	0·34	+0·97
	Do. do. (East Submontane)	1·6	0·4	0·58	0·20	+0·38
	Do. do. (West do.)	3·4	0·8	1·81	0·47	+1·34
	Do. do. (Hills)	3·7	1·1	2·52	0·51	+2·01
Punjab	Punjab (South-East)	3·6	0·6	1·36	0·30	+1·06
	Do. (South)	1·6	0·4	0·65	0·27	+0·38
	Do. (Central)	2·5	0·5	0·86	0·30	+0·56
	Do. (Submontane)	3·2	0·8	1·77	0·58	+1·19
	Do. (Hills)	6·0	1·3	5·34	0·88	+4·46
	Do. (North)	3·4	0·9	1·69	0·54	+1·15
	Do. (West)	2·0	0·2	0·65	0·12	+0·53
Bombay and Malabar Coast Districts (Madras).	Malabar	0·9	1·1	0·51	0·63	−0·12
	Travancore	3·1	...	2·30	...	...
	Madras (South Central)	2·4	2·2	0·89	1·28	−0·39
	Coorg	0·1	...	0·04	...	...
	Mysore*	...	...	0·15	0·65	−0·50
	Konkan	0	0·3	0	0·14	−0·14
	Bombay Deccan	0	0·7	0	0·41	−0·41
	Khandesh	0	0·8	0	0·56	−0·56
Central Provinces and Berar.	Berar	0·2	...	00·4	0·54	−0·50
	Central Provinces (West)	0·7	0·5	0·28	0·52	−0·24
	Do. (Central)	1·1	0·5	0·46	0·33	+0·13
	Do. (East)	0·1	0·5	0·32	0·30	+0·02
Bombay (North)	Gujarat	0	0·1	0·01	0·06	−0·05
	Kathiawar and Cutch	0	0·1	0·01	0·04	−0·03
	Sind	1·6	...	0·62	0·11	+0·51
	Baluchistan Hills	6·1	...	3·21	0·98	+2·23
Rajputana and Central India.	Central India (East)	2·1	...	1·01	0·39	+0·62
	Rajputana (East), Central India (West)	2·2	...	0·72	0·30	+0·42
	Do. (West)	0·6	...	0·16	0·13	+0·03
Madras	East Coast (North)	0	0·6	0	0·58	−0·58
	Hyderabad (South)*	...	...	0	...	...
	Madras (Central)	0·8	0·8	0·44	0·43	+0·01
	East Coast (Central)	2·0	2·5	1·97	2·07	−0·10
	Do. (South)	6·6	5·2	4·56	4·97	−0·41
	Madras (South)	6·7	4·5	3·76	3·55	+0·21

* NOTE.—The figures entered against divisions marked with an asterisk have been obtained from the weekly telegraphic reports.

The above shows that there were six divisions which received actually no rain during the month; 23 divisions which received less than ½ inch; 11 divisions which received between ½ inch and 1 inch and 16 divisions which received over 1 inch.

The largest amount was received in the Punjab hills which division had over six times the normal fall of the month.

The only rainfall in Burma occurred between the 15th and the 18th. The most general rain was on the 17th when in Upper Burma the fall was moderate. In Central Burma the total fall slightly exceeded the normal, but in the remaining divisions it was more or less in defect.

Assam received a little rain on the 20th and 21st and again on the 26th, but the total fall of the month was very light except in the Brahmaputra Valley where the total slightly exceeded the average.

The month was even drier than usual over Lower Bengal, and there was practically no rain over East Bengal, Deltaic Bengal, Central Bengal, North Bengal and Orissa throughout the month. On the other hand, there were heavy and general falls of rain over Bihar on the 25th and 31st and over Chota Nagpur between the 25th and 31st. The following gives the falls exceeding 2″ in 24 hours reported from these divisions :—

Province or Division.	District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
				Inches.
Bihar	Shahabad	Bassawan	30th December	1·37
		Mohanea	31st "	2·70
	Gaya	Pakri Barawan	" "	2·47
	Shahabad	Bassawan	" "	2·34
	Gaya	Rajauli	" "	2·00
	Shahabad	Khiri	" "	1·40
	Monghyr	Gogri	" "	1·15
	Patna	Dinapore	" "	1·11
	Shahabad	Bhabhua	" "	1·11
Chota Nagpur.	Palamau	Nagrutari	25th "	1·35
	Ranchi	Sirguja	27th "	1·50
		Kurdeg	28th "	1·50
	Palamau	Balumath	30th "	1·10
		Latehar	31st "	2·50
	Palamau	Chatterpur	31st December	1·86
		Husainabad	" "	1·40
	Hazaribagh	Chatra	" "	1·15
	Palamau	Ranka	" "	1·10
	Ranchi	Gangpur	" "	1·07
	Hazaribagh	Barhi	" "	1·02
	Palamau	Balumath	" "	1·02

There were five rainy periods over the North-Western Provinces during the month. The first occurred on the 10th when rain was received in Oudh, and the east, central and submontane divisions of the North-Western Provinces. The amounts were generally moderate or small and did not exceed 1″ at any station. The second fall occurred between the 13th, 14th and 15th when rain was received in Oudh and most parts of the North-Western Provinces. This fall was heavier and more general than the preceding, and the following falls exceeding 1″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Dehra-Dun	Chakrata (observatory)	14th December	1·36
	Chakrata Tahsil (Kalsi)	14th "	1·08
Moradabad	Hasanpur	15th "	1·80

The third fall occurred on the 19th and 20th and like the first fall was light except in the western and submontane divisions. The following were the only falls exceeding 1″ in 24 hours recorded during this disturbed period :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Etah	Kasganj	19th December	1·30
Bulandshahr	Dayanatpur	20th "	1·39

The fourth period of unsettled weather occurred on the 24th and 25th when rain fell generally throughout the

whole of these provinces. The fall was heavier than in any of the preceding disturbed periods and amounts exceeding 1″ in 24 hours were recorded at the following places:—

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NAINI TAL	Nagla	24th December	2·10
ALMORA	Purana Thal	,, ,,	2·10
	Berenag	,, ,,	2·00
DEHRA-DUN	Mussooree	,, ,,	1·60
ALMORA	Rawana Thal	,, ,,	1·35
GARHWAL	Okhimath	,, ,,	1·25
SAHARANPUR	Saharanpur	,, ,,	1·20
ALMORA	Almora	,, ,,	1·18
GARHWAL	Landsdowne	,, ,,	1·14
	Bironkhan	,, ,,	1·12
MUZAFFARNAGAR	Budhana	,, ,,	1·10
BIJNOR	Dhampur	,, ,,	1·10
NAINI TAL	Ramnagar	,, ,,	1·08
GARHWAL	Joshimath	,, ,,	1·05
ALMORA	Pirpulta	,, ,,	1·05
SAHARANPUR	Nakur	,, ,,	1·05
AGRA	Itimadpur	,, ,,	1·05
ALLAHABAD	Meja	25th ,,	2·35
DEHRA-DUN	Chakrata (Observatory)	,, ,,	2·12
	Chakrata Tahsil (Kalsi)	,, ,,	2·02
GARHWAL	Landsdowne	,, ,,	1·89
ALMORA	Champawat	,, ,,	1·61
GARHWAL	Karnprayag	,, ,,	1·45
ETAWAH	Etawah	,, ,,	1·44
GHAZIPUR	Zamania	,, ,,	1·39
MAINPURI	Mainpuri	,, ,,	1·26
DEHRA DUN	Rajpur	,, ,,	1·26
FARUKHABAD	Thatia Tirwa	,, ,,	1·25
HARDOI	Sandila	,, ,,	1·20
ALMORA	Ranikhet (Observatory)	,, ,,	1·17
BENARES	Benares	,, ,,	1·16
GARHWAL	Joshimath	,, ,,	1·15
	Kotdwara	,, ,,	1·14
	Srinagar	,, ,,	1·13
DEHRA DUN	Dehra	,, ,,	1·12
	Ambari	,, ,,	1·10
ETAWAH	Bhidhuna	,, ,,	1·07
MIRZAPUR	Korh	,, ,,	1·04

The last rainfall period of the month occurred on the 31st when the rainfall was as heavy and general as during the preceding fall. This is shown in the following table which gives the falls exceeding 1″ in 24 hours at this time:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NAINI TAL	Ramnagar	31st December	2·60
BANDA	Baberu	,,	2·33
	Banda	,,	2·02
	Kamasin	,,	1·85
ALLAHABAD	Manjhanpur	,,	1·78
	Saraon	,,	1·71
MIRZAPUR	Robertsganj	,,	1·65
FATEHPUR	Khaga	,,	1·62
HAMIRPUR	Bija Nagar	,,	1·56
	Mahoba	,,	1·54
JHANSI	Mau	,,	1·50
BANDA	Mau	,,	1·51
HAMIRPUR	Thana	,,	1·48
	Kulpahar	,,	1·46
UNAO	Purwa	,,	1·44
DEHRA DUN	Rajpur	,,	1·39
MIRZAPUR	Mirzapur	,,	1·30
BANDA	Badausa	,,	1·24
HAMIRPUR	Maudha	,,	1·24
MIRZAPUR	Chakea	,,	1·20
BANDA	Pailani	,,	1·20
	Karwi	,,	1·20
BENARES	Chandauli	,,	1·17
ALLAHABAD	Handia	,,	1·12
JHANSI	Garotha	,,	1·05
AZAMGARH	Jewanpur (Sagri)	,,	1·05
PARTABGARH	Kunda	,,	1·04
ALLAHABAD	Phulpur	,,	1·03
	Barah	,,	1·02

As a consequence of these heavy general falls of rain every division exhibited a large excess at the close of the month which in the case of the hills and central divisions

was about four times the normal amount. The following gives comparative data for the eight divisions :—

Province or Division.	Rainfall.				Number of rainy days.	
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.	Average actual, December 1900.	Average normal, December.
	Inches.	Inch.	Inches.			
N.-W. Provinces East	1·66	0·26	+1·40	+538	2·1	0·4
South Oudh	1·32	0·41	+0·91	+222	2·9	0·6
North Oudh	0·80	0·38	+0·42	+111	1·9	0·6
N.-W. Provinces, Central	1·85	0·35	+1·50	+429	3·8	0·5
" West	1·31	0·34	+0·97	+285	3·9	0·5
" East submontane.	0·58	0·20	+0·38	+190	1·6	0·4
" West submontane.	1·81	0·47	+1·34	+285	3·4	0·8
" Hills.	2·52	0·51	+2·01	+394	3·7	1·1

There were four important falls of rain over the Punjab during December. The first was reported on the 13th and 14th when rain was received in the Central Punjab, the submontane division, the hill division and the north-west division. The fall was heavy at several stations. The following shows the falls exceeding 1″ in 24 hours on this occasion :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Umballa	Kasauli	13th December	1·55
Gurgaon	Firozpur	" "	1·10
Simla	Kot Khai	14th "	2·04
Kangra	Plach	" "	1·30
	Kulu	" "	1·22
Simla	Kilba	" "	1·10

The second rainy period occurred on the 18th, 19th and 20th when rain was experienced in the south, central, submontane, hill, north-west and west divisions. This fall was both heavier and more extensive than that described above and the following amounts exceeding 1″ in 24 hours were recorded :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gurdaspur	Dalhousie	18th December	2·07
Kangra	Nagar	" "	1·02
	Dharmsala	19th "	2·10
	Nagar	" "	2·01
	Kulu	" "	1·88
	Palampur	" "	1·36
	Kangra	" "	1·30
Simla	Kilba	" "	1·22

The third rainy period lasted from the 23rd to the 26th, when the rainfall was general and heavy throughout the whole province. This is shown by the following table which gives the falls exceeding 1″ in 24 hours on this occasion :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Gurdaspur	Dalhousie	23rd December	1·48
	"	24th "	3·15
Kangra	Nagar	" "	2·35
Rawalpindi	Muree	" "	1·80
	Kahuta	" "	1·71
Peshawar	Katlang	" "	1·50
Hissar	Bhiwani	" "	1·34
Hazara	Mansahra	" "	1·26
Gurgaon	Firozpur	" "	1·15
Simla	Kotgarh	" "	1·15
Gurgaon	Punahana	" "	1·14
Rohtak	Rohtak	" "	1·11
Umballa	Jagadhri	" "	1·10
Kangra	Kulu	" "	1·05
Peshawar	Swabi	" "	1·04
Kangra	Nurpur	25th "	4·81
	Dharmsala	" "	4·50
	Dera	" "	4·03
Gurdaspur	Madhopur	" "	4·00
Kangra	Kangra	" "	3·97
	Palampur	" "	3·84
Gurdaspur	Pathankot	" "	3·56
Hoshiarpur	Dasuya	" "	3·40
Jullundur	Jullundur	" "	1·75
Gurdaspur	Gurdaspur	" "	1·67

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
HOSHIARPUR	Sadr Station	25th December	1·60
SIMLA	Simla	" "	1·55
HOSHIARPUR	Hoshiarpur	" "	1·50
GURDASPUR	Tebri	" "	1·40
KANGRA	Hamirpur	" "	1·20
UMBALLA	Umballa	" "	1·10
HOSHIARPUR	Una	" "	1·08
UMBALLA	Naraingarh	" "	1·01
KANGRA	Kulu	26th "	1·08
	Nagar	" "	1·01

The fourth and last fall occurred on the 30th and the 31st. It was less heavy but almost as general as the preceding fall. The following gives the amounts exceeding 1″ in 24 hours:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
RAWALPINDI	Murree	30th December	1·20
UMBALLA	Naraingarh	31st "	1·60
AMRITSAR	Khara	" "	1·44
UMBALLA	Rupar	" "	1·20
RAWALPINDI	Murree	" "	1·20
GURDASPUR	Dalhousie	" "	1·08

In every part of the province the month's rainfall was in large excess. The following gives comparative data for the different divisions of the province:—

PROVINCE OR DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, December. 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.	Average actual, December 1900.	Average normal December.
	Inches.	Inch.	Inches.			
South-East Punjab	1·36	0·30	+1·06	+353	3·0	0·6
South Punjab	0·65	0·27	+0·38	+141	1·6	0·4
Central Punjab	0·86	0·30	+0·56	+187	2·5	0·5
Punjab Submontane	1·77	0·58	+1·19	+205	3·2	0·8
Punjab Hills	5·34	0·88	+4·46	+507	6·0	1·3
North Punjab	1·69	0·54	+1·15	+213	3·4	0·9
West Punjab	0·65	0·12	+0·53	+442	2·0	0·2

In Persia the rainfall was irregularly distributed, as is shown below:—

DISTRICT.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Jask	2·90	0·48	+2·42	+ 504
Bushire	3·82	3·11	+0·71	+ 23
Teheran	1·05	1·31	−0·26	− 20
Ispahan	0·05	0·45	−0·40	− 89
Mesned	0·70	0·38	+0·32	+ 84

Baluchistan received three times the normal rainfall. There were four rainfall periods during the month, the first occurring on the 1st and 2nd, the second between the 17th and 19th, the third between the 21st and 24th and the last on the 30th and 31st. The last three falls were each heavy and general but particularly the last. The following shows the falls exceeding 1″ in 24 hours on each of these three periods of rainy weather:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BALUCHISTAN	Lindsay	23rd December	1·60
	Hirok	" "	1·24
	Mach (Hospital)	" "	1·17
	Kalat	" "	1·04
	Kachh	24th "	3·00
	Abegun	" "	1·40
	Mushkof	" "	1·40
	Mach (Ry. Station)	" "	1·10
	Kachh	30th "	4·00
	Quetta (Ry. Station)	" "	1·70
	Kolepur	" "	1·62
	Quetta (Hospital)	" "	1·38
	Yarookarez	" "	1·20
	Mach (Hospital)	" "	1·15
	Pishin	" "	1·10

DISTRICT.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
BALUCHISTAN	Sarawan	30th December	1·10
	Shalabagh	" "	1·10
	Mangi	" "	1·03
	Shabrig	31st "	1·30
	Kolepur	" "	1·14
	Mach (Ry. Station)	" "	1·05
	Panir	" "	1·04

Kashmir received light scattered showers but no general rain up to the 16th. After the latter date showers continued more or less up to the end of the month but were particularly heavy on the 18th, 23rd, 24th and the 31st. The following table gives all the falls exceeding 1″ in 24 hours:—

STATE.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
KASHMIR	Iskardo	17th December	1·04
	Utar Machhipore	18th "	1·12
	Pattan	" "	1·10
	Utar Machhipore	19th "	1·02
	Sri Ranbir Singh Pora	21st "	1·56
	Ramban	23rd "	2·54
	Punch	" "	2·05
	Sri Ranbir Singh Pora	" "	1·50
	Karnah	" "	1·33
	Anantnag	" "	1·20
	Kathua	" "	1·20
	Jasmairgarh	" "	1·01
	Ramban	24th "	2·49
	Sambha	" "	2·14
	Jasmairgarh	" "	2·03
	Pader	" "	2·00
	Rampore Rajauri	" "	1·98
	Uri	" "	1·69
	Punch	" "	1·52
	Kotei	" "	1·50
	Haripore	" "	1·50
	Utar Machhipore	" "	1·03
	Udumpur	" "	1·03
	Ramban	25th "	1·42
	Kathua	27th "	3·10
	Sri Ranbir Singh Pora	29th December	1·04
	Udumpur	31st "	1·97
	Rampore Rajauri	" "	1·52
	Sambha	" "	1·39
	Jasmairgarh	" "	1·33

In Western Rajputana light showers were received on the 30th and 31st, and in Eastern Rajputana, as in the Punjab, on the 12th and 13th, on the 19th, on the 24th and on the 31st. The falls were not generally heavy but exceeded 1″ in 24 hours at the following places on the following dates:—

STATE.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
ALWAR	Kishangarh	12th December	1·60
BHARATPUR	Paharee	" "	1·13
KOTAH	Baran	" "	1·06
	Mandana	" "	1·05
	Kotah	13th "	1·54
ALWAR	Bahror	" "	1·48
BHARATPUR	Paharee	23rd "	1·03

All over the province the normal rainfall was largely exceeded, as is shown by the following comparative statement for some of the larger states:—

STATE.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inch.	Inch.	
Jodhpur	0·17	0·13	+0·04	+ 31
Jaipur	0·73	0·35	+0·38	+108
Alwar	1·17	0·45	+0·72	+160
Bharatpur	1·19	0·29	+0·90	+310
Karauli	1·00	0·33	+0·67	+203
Kotah	0·86	0·25	+0·61	+244
Ajmer-Merwara	0·28	0·28	0	0
Udaipur	0·10	0·13	—0·03	— 23
Sirohi	0·04	0·14	—0·10	— 71

In Central India the rainfall was lighter and less general than over Rajputana but fell generally about the same

dates. The following gives comparative data for some of the larger states :—

STATE.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inch.	Inches.	
Indore	0	0·20	—0·20	—100
Rutlam	0·02	0·23	—0·21	— 91
Bhopal Agency	0·11	0·45	—0·34	— 76
Gwalior	0·80	0·30	+0·50	+167
Rewah	2·15	0·45	+1·70	+378
Bundelkhand	1·80	0·48	+1·32	+276

The Central Provinces received partial showers about the 10th and 11th, and from the 25th to the end of the month. At a few places these showers were moderately heavy and exceeded 1″ in 24 hours on the following occasions :—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
DAMOH	Damoh	10th December	1·74
HOSHANGABAD	Pachmarhi	" "	1·17
NARSINGHPUR	Mohpani	" "	1·05
BILASPUR	Korba	25th "	1·05

In Berar there were one or two local showers on the 10th and 11th. The following gives comparative data for Berar and the three divisions of the Central Provinces :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.	Average actual, December 1900.	Average normal, December.
	Inch.	Inch.	Inch.			
Berar	0·04	0·54	—0·50	—93	0·2	...
Central Provinces (East)	0·32	0·30	+0·02	+ 7	0·1	0·5
Central Provinces (Central).	0·46	0·33	+0·13	+39	1·1	0·5
Central Provinces (West)	0·28	0·52	—0·24	—46	0·7	0·5

A few showers fell in Gujarat during the first half of the month and in Sind about the middle of the month, but with these exceptions the weather was rainless over the Bombay Presidency. The following comparative statement shows the extent of the rainfall failure over Bombay :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.	Average actual, December 1900.	Average normal, December.
	Inch.	Inch.	Inch.			
Konkan	0	0·14	—0·14	—100	0	0·3
Bombay Deccan	0	0·41	—0·41	—100	0	0·7
Khandesh	0	0·56	—0·56	—100	0	0·8
Gujarat	0·01	0·06	—0·05	— 83	0	0·1
Kathiawar and Cutch.	0·01	0·04	—0·03	— 75	0	0·1
Sind	0·62	0·11	+0·51	+464	1·6	...

Coorg received a few showers about the 11th but the remainder of the month was rainless.

The rainfall of the Madras Presidency generally occurred during four periods of rain; the first covering the 1st to the 3rd; the second, the 11th to the 14th; the third the 18th to the 21st and the fourth, the 24th and 25th.

Malabar received rain mainly during the first three periods and the total fall of the month was about normal The following gives comparative data for the two districts composing this division :—

DISTRICT.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Malabar	0·56	0·76	—0·20	—26
South Canara	0·42	0·40	+0·02	+ 5

The division of South Madras received rain from all four rainy periods and the total rainfall of the division was about normal. The following gives data for the two districts :—

DISTRICT.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
Madura	3·80	3·39	+0·41	+12
Tinnevelly	3·72	3·73	—0·01	0

The rainfall in this division was occasionally moderately heavy and falls exceeding 2″ in 24 hours were recorded at the following places:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
MADURA	Ramnad	3rd December	3·55
	Paramagudi	,, ,,	2·35
	Mutturaghunadapatnam	,, ,,	2·34
	Morekulam	,, ,,	2·07
TINNEVELLY	Tenkasi	4th ,,	3·17
	Kalasekarapatnam	12th ,,	2·06
MADURA	Ramnad	19th ,,	2·52
	Morekulam	,, ,,	2·25

South-Central Madras had only one important fall of rain, *viz.*, that on the 12th and 13th, and the fall for this division was less than usual. The following gives data for the two districts in this division:—

DISTRICT.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
Salem	0·75	1·28	—0·53	—41
Coimbatore	1·10	1·32	—0·22	—17

There was no rain in Central Madras except in the Cuddapah district. This is shown below:—

DISTRICT.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
Cuddapah	1·49	1·04	+0·45	+ 43
Anantapur	0·06	0·23	—0·17	— 74
Bellary	0	0·15	—0·15	—100
Kurnool	0	0·17	—0·17	—100

The north division of the east coast received practically no rain during the month, but the central division had heavyish showers between the 11th and 13th and light showers on the 18th and 19th. The rainfall of the division was normal, as is shown by the following comparative data for the Nellore district:—

DISTRICT.	RAINFALL.			
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
Nellore	1·97	2·07	—0·10	— 5

The following were the showers exceeding 2″ in 24 hours recorded in this district:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
NELLORE	Kota	12th December	2·21
	Atmakur	,,	2·20
	Tada	13th December	4·30
	Sulurpeta	,,	4·00
	Rapur	,,	2·87
	Venkatagiri	,,	2·44

The south division of the east coast received rain from all four of the rainy periods and the rainfall was heavy on several occasions. The following gives the falls exceeding 2″ in 24 hours in this division:—

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TANJORE	Neidavasal	1st December	3·75
	Nannilam	,,	3·60
	Mayavaram	,,	3·52
	Shiyali	,,	3·00
	Tranquebar	,,	2·37
	Do.	3rd December	5·75
	Negapatam	,,	5·37
	Tiruvalur	,,	5·24
	Mannargudi	,,	5·03
	Muttupet	,,	4·67
	Kattumavadi	,,	4·25
	Nannilam	,,	3·08

DISTRICT.	STATION.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
TANJORE—*contd.*	Pattukkottai	3rd December	2·70
	Neidavasal	"	2·54
	Shiyali	"	2·20
	Kudavasal	"	2·14
	Nidamangalam	"	2·07
	Magilankottai	"	2·01
CHINGLEPUT	Madurantakam	11th December	2·85
	Uttramerur	"	2·65
	Koolong	"	2·43
SOUTH ARCOT	Tittagudi	13th December	3·16
CHINGLEPUT	Ponneri	"	3·08
TRICHINOPOLY	Ariyalur	"	2·85
CHINGLEPUT	Kattur	"	2·83
	Tiruvallur	"	2·70
NORTH ARCOT	Arcot	"	2·50
TANJORE	Negapatam	"	2·45
CHINGLEPUT	Attipat	"	2·42
NORTH ARCOT	Walajah	"	2·12
TANJORE	Shiyali	18th December	2·32
	Mayavaram	"	2·28
SOUTH ARCOT	Tittagudi	"	2·15
	Cuddalore	"	2·12
TANJORE	Kumbakonam	"	2·08
	Nidamangalam	"	2·07
	Muttupet	19th December	2·27
	Magilankottai	"	2·25

The total rainfall of the month was about normal, as is shown by the following comparative statement of the month's rainfall of the six districts of this division :—

District.	RAINFALL.			
	Average actual, December 1900	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Madras	2·45	5·28	—2·83	—54
Chingleput	3·88	5·05	—1·17	—23
North Arcot	2·02	2·63	—0·61	—23
South Arcot	4·14	5·20	—1·06	—20
Tanjore	8·52	7·65	+0·87	+11
Trichinopoly	3·54	3·31	+0·23	+7

On the whole the rainfall of Madras was about normal except in the division of the east coast, north. This is shown by the following table which gives data for all the Madras divisions :—

DIVISION.	RAINFALL.				NUMBER OF RAINY DAYS.	
	Average actual, December 1900.	Average normal, December.	Variation of actual from normal, December 1900.	Percentage variation from normal.	Average actual, December 1900.	Average normal December.
	Inches.	Inches.	Inch.			
Malabar	0·51	0·63	—0·12	—19	0·9	1·1
Madras South Central.	0·89	1·28	—0·39	—30	2·4	2·2
East Coast, North	0	0·58	—0·58	—100	0	0·6
Madras, Central	0·44	0·43	+0·01	+2	0·8	0·8
East Coast, Central	1·97	2·07	—0·10	—5	2·0	2·5
East Coast, South	4·56	4·97	—0·41	—8	6·6	5·2
Madras, South	3·76	3·55	+0·21	+6	6·7	4·5

Table

Abstract of Observations taken at 8 A.M. at 220 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	I.—Burma Coast and Bay Islands.				+·021								86·3	+0·9	68·8	+1·7	77·5	+1·4	17·5					25·8
1	Tenasserim and Bay Islands.	Car Nicobar	25	29·889*		29·841*	30·036	11th	29·813	4th	·223	80·0*	85·5*		77·4*		81·5*		8·1	87·1	10th	69·7	6th	17·4
		Port Blair	61	29·951	+·033	29·943	30·011	18th	29·881	5th	·130	80·0	87·5		77·3*		82·4*		10·2	89·1	21st	73·0	6th	16·1
		Mergui	96	29·913	+·022	29·942	29·974	11th	29·817	4th	·157	75·3	87·8	+0·8	68·6	+2·7	78·2	+1·8	19·2	90·6	18th	64·4	24th	26·2
		Tavoy	26	29·995	?	29·952	30·072	18th	29·894	4th	·178	71·4	88·2	+0·3?	64·2	−0·4?	76·2	−0·1?	24·0	91·2	16th & 31st.	59·0	24th	32·2
		Moulmein	94	29·957	+·015	29·991	30·046	18th	29·837	4th	·209	72·4	88·2	+1·0	66·8	+0·3	77·5	+0·7	21·4	92·5	16th	60·9	30th	31·6
2	Lower Burma	Rangoon	41	30·009	+·013	29·987	30·087	22nd	29·884	4th	·203	71·9	88·0	+0·7	67·4	−0·3	77·7	+0·2	20·6	93·1	16th	62·8	26th	30·3
		Bassein	27	30·034	+·025	29·997	30·117	18th & 22nd.	29·907	4th	·210	71·3	85·7	+1·3	67·9	+2·6	76·8	+2·0	17·8	89·2	10th	63·3	31st	25·9
		Diamond Island	41	30·008	+·028	29·985	30·106	22nd	29·891	4th	·215	78·7	85·1	+0·8	75·4	+3·4	80·3	+2·1	9·7	87·6	11th	73·7	6th	13·9
5	Arakan	Akyab	20	30·041	+·012	30·004	30·122	18th	29·938	4th	·184	67·3	83·9	+2·0?	61·6	−2·8?	72·8	−0·4?	22·3	86·9	10th	55·6	8th	31·3
3	Central Burma.	Toungoo	183	29·876	+·021	30·007	29·951	22nd	29·755	4th	·196	68·2	82·8	−1·2?	61·1	−1·5	72·0	−1·4?	21·7	87·6	20th	54·6	24th	33·0
	II.—Burma Inland				+·011								83·0	+1·9	59·2	+2·6	71·1	+2·3	23·8					31·8
3	Central Burma.	Thayetmyo	130	29·953	+·029	30·027	30·046	22nd	29·832	4th	·214	67·7	85·8	+1·4	59·6	+0·7	72·7	+1·1	26·2	88·4	10th	53·8	29th	34·6
4	Upper Burma	Minbu	165	29·934	+·002	30·048	30·026	22nd	29·793	4th	·233	68·6	85·0	+1·1	62·0	+2·3	73·5	+1·7	23·0	87·6	16th	57·5	27th	30·1
		Yamethin	657	29·405	+·007	30·035	29·488	17th	29·281	4th	·207	66·9	86·5	+2·0	60·7	+4·3	73·6	+3·2	25·8	91·0	10th	55·2	29th	35·8
		Mandalay	250	29·830?	+·006	30·039?	29·929	22nd	29·694	5th	·235	67·5	85·9	+3·8	62·0	+3·2	74·0	+3·5	23·9	89·0	16th	56·7	29th	32·3
		Kindat	377	29·739	+·015	30·091	29·831	18th	29·587	4th	·244	61·0	78·3	+2·6	58·3	+2·7	68·3	+2·7	20·0	80·3	5 days	53·8	27th	26·5
		Bhamo	381	29·717	+·007	30·075	29·819	22nd	29·577	4th	·242	58·3	76·7	+0·3	52·7	+2·3	64·7	+1·3	24·0	80·5	2nd & 3rd.	49·2	8th, 30th & 31st.	31·3
(a)	Burma Hill Stations.	Maymyo										56·5	71·2							76·0	12th			
		Taunggyi										56·1	66·0†	−5·7†	47·4‡	−0·5‡	56·8	−3·1	18·6	71·2	9th	42·0	7th	29·2
		Lashio										55·2	75·3	+2·2	50·2	+2·9	62·8	+2·6	25·1	80·6	12th, 13th & 16th.	44·5	29th	36·1
	III.—Assam				+·013								77·0	+1·7	54·8	+1·0	66·0	+1·4	22·2					31·9
7	Surma	Silchar	104	30·003	+·028	30·065	30·096	22nd	29·887	4th	·209	62·3	82·3	+2·8	56·4	+1·2	69·4	+2·0	25·9	86·5	13th & 16th.	50·4	31st	36·1
9	Brahmaputra	Sibsagar	333	29·789	+·009	30·099	29·913	22nd	29·645	4th	·268	56·4	72·2	+0·5	53·3	+2·8	62·8	+1·7	18·9	75·3	8th	46·9	31st	28·4
		Dhubri	115	29·988	+·003	30·066	30·095	22nd	29·855	4th	·240	60·3	76·5	+1·9	54·8	−1·1	65·7	+0·4	21·7	80·1	18th	48·8	29th & 30th.	31·3
	IV.—Bengal and Orissa				+·018								79·7	+2·3	56·4	+1·8	68·0	+2·1	23·3					31·7
6	East Bengal	Chittagong	87	30·001	+·025	30·041	30·096	22nd	29·897	4th	·199	64·1	82·3	+4·4	58·0	−0·4?	70·2	+2·0	24·3	86·5	17th	51·1	31st	35·4
		Noakhali	43	30·042		30·034	30·132	22nd	29·940	4th	·192	62·8	82·4		54·5		68·4		27·9	86·3	17th	47·8	31st	38·5
		Comilla	36	30·059		30·044	30·146	22nd	29·955	4th	·191	63·4	81·9		55·1		68·5		26·8	86·4	17th & 18th.	49·1	31st	37·3
		Sirajganj	49	30·033		30·033	30·126	18th	29·918	4th	·208	59·9	78·6		56·2		67·4		22·4	83·4	16th	51·4	31st	32·0
		Narayanganj	26	30·013	+·023	30·038	30·169	22nd	29·951	4th	·218	62·6	79·7	+1·3	57·5	+0·2	68·5	+0·8	22·2	83·1	16th	51·3	31st	31·8
		Barisal	13	30·072	+·023	30·031	30·166	22nd	29·971	4th	·195	65·1	80·6	+3·4	57·4	+1·2	69·0	+2·3	23·2	83·3	16th 17th & 18th.	51·2	31st	32·1
		Mymensingh	59	30·024	+·020	30·038	30·116	18th	29·916	4th	·200	60·6	78·0	+1·5	56·2	+2·2	67·1	+1·9	21·8	82·6	16th	50·7	31st	31·9
10	Deltaic Bengal.	Faridpur	46	30·056		30·051	30·167	22nd	29·950	4th	·217	64·6	78·8		54·7		66·9		24·1	81·2	16th	50·0	31st	31·2
		Jessore	33	30·065	+·018	30·046	30·167	22nd	29·946	4th	·221	62·0	78·9	+1·1	56·0	+0·8	67·5	+1·0	22·9	81·1	12th	51·1	31st	30·0
		Calcutta	21	30·090	+·019	30·057	30·189	22nd	29·978	4th	·211	64·5	80·2	+4·1	58·1	+2·0	69·2	+3·1	22·1	83·1	6th & 7th.	54·6	10th	28·5
		Saugor Island	25	30·071	+·005	30·041	30·176	18th	29·968	4th	·208	65·8	79·8	+4·0	60·6	+1·5	70·2	+2·8	19·2	83·0	7th	56·0	14th	27·0
		Krishnagar	47	30·069		30·067	30·164	22nd	29·951	4th	·213	63·2	80·4		55·5		67·9		24·9	83·2	6th	51·1	8th	32·1
		Midnapore	149	29·958		30·061	30·060	22nd	29·844	4th	·216	65·4	81·9		58·0		70·0		23·9	86·8	2nd	54·2	14th, 17th & 19th.	32·6

* Mean of 30 days. † Mean of 26 days. ‡ Mean of 28 days.

I.

in India, Burma, etc., in December 1900.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind resultant.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 31st December 1900.	Normal rainfall for period, 1st October to 31st December.	Variation from normal of period, 1st October to 31st December.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				1·39	0·98	−0·19					I.—Burma Coast and Bay Islands.		
	3	11		1					N 61° E	5·4	5·4			80*	·814*	6·5*	6			6·83				24·35		4·64	Car Nicobar§	Tenasserim and Bay Islands.	
	6	13	4	3	1		1	3	N 41° E	6·0		7·2	− 17	79	·815	4·9	4			6·73	5·94	+ 0·79	20·86	27·08	−6·22	4·30	Port Blair		1
30		1							N 45° E	2·6	2·3	1·8	+ 28	75	·649	3·1	0			0	0·57	− 0·57	10·31	17·74	−7·43	0	Mergui.		
29	1	1							N 24° E	1·2	•			83	·641	0·5	0			0	0·06	− 0·06	6·93	12·32	−5·39	0	Tavoy.		
	4	19	2	4	1			1	N 51° E	1·8	2·1	2·6	− 19	83	·657	1·1	0	0·18	−0·18	0	0·05	− 0·05	11·62	10·47	+1·15	0	Moulmein.		
	5	17	5	2	1	1			N 52° E	3·5		4·9	− 29	85	·670	2·5	0	0·45	−0·45	0	0·09	− 0·09	8·53	9·81	−1·28	0	Rangoon	Lower Burma.	2
16	1	10	2	1				1	N 48° E	3·5		2·7	+ 30	86	·661	2·0	0	0·55	−0·55	0·06	0·14	− 0·08	6·15	12·56	−6·41	0·03	Bassein.		
	6	17	8						N 49° E	6·1	6·1	7·4	− 18	73	·724	2·4	0	0·90	−0·90	0·02	0·87	− 0·85	4·92	17·30	−12·38	0·02	Diamond Island.		
	25	6							N 8° E	2·8		2·2	+ 27	90	·609	2·2	0	1·27	−1·27	0	0·88	− 0·88	4·44	14·26	− 9·82	0	Akyab	Arakan.	5
1	11	5						14	N 14° W	1·9	1·9	2·3	− 17	89	·621	4·3	1	0·36	+0·64	0·27	0·20	+ 0·07	10·88	8·33	+ 2·55	0·19	Toungoo	Central Burma	3
																				0·30	0·56	−0·26					II.—Burma Inland.		
21	6	1	1		2				N 21° E	1·5		3·2	− 53	84	·569	0·9	0	0·36	−0·36	0·09	0·10	− 0·01	5·38	6·50	− 1·12	0·09	Thayetmyo.	Central Burma.	3
	3			1			4	23	N 47° W	4·1	4·9			80	·570	2·6	1			0·15	1·09	− 0·94	6·60	5·31	+ 1·29	0·15	Minbu	Upper Burma.	4
6	8	1		4	1		1	10	N 20° W	2·0	2·1			88	·579	2·4	1			0·85	0·87	− 0·02	8·61	6·74	+ 1·87	0·85	Yamethin.		
21	5	1		1	3				N 34° E	1·7	1·7			86	·576	1·0	1			0·21	0·26	− 0·05	5·84	6·62	− 0·78	0·21	Mandalay.		
31										0·1	0·1			97	·525	0·3	0			0·06	0·54	− 0·48	5·94	8·42	− 2·48	0·06	Kindat.		
22		7	2						N 54° E	1·8	2·1			95	·463	2·8	1			0·41	0·48	− 0·07	4·12	5·11	− 0·99	0·20	Bhamo.		
						23		8	S 63° W					88	·407												Maymyo	Burma Hill Stations.	4(a)
		1		3	12	14	1		S. 19° W					82	·373	3·2	1			0·26	1·12	− 0·86	6·40	8·89	− 2·49	0·16	Taunggyi.		
														95	·408	5·6	2			0·83	0·78	+ 0·05	7·42	5·21	+ 2·21	0·45	Lashio.		
																				0·36	0·40	−0·03					III.—Assam.		
30			1						E	0·1	0·2	1·9	− 89	90	·500	2·6	1	0·71	+0·29	0·13	0·52	− 0·39	0·72	8·48	− 7·76	0·12	Silchar	Surma.	7
29	1	1							N 24° E	1·4	1·3	1·6	− 19	100	·463	4·8	2	1·81	+0·19	0·96	0·57	+ 0·39	9·39	6·39	+ 3·00	0·76	Sibsagar	Brahmaputra.	9
2		10	15	1		1	2		N 74° E	3·2	3·8	4·5	− 16	88	·468	0·9	0	0·13	−0·13	0	0·10	− 0·10	2·08	3·86	− 1·78	0	Dhubri.		
																				0·07	0·23	−0·16					IV.—Bengal and Orissa.		
	13	17	1						N 27° E	3·2	3·1	3·2	− 3	88	·530	1·4*	0	0·92	−0·92	0	0·77	− 0·77	1·51	8·54	− 7·03	0	Chittagong.	East Bengal.	6
	16	6		1			2	6	N 2° W	1·8	1·7			87	·508	2·5	0	0·58	−0·58	0	0·60	− 0·60	5·57	10·11	− 4·54	0	Noakhali.		
27	2	1		1					N 27° E	1·3				76	·442	1·1‖	0	0·54	−0·54	0	0·36	− 0·36	3·11	6·70	− 3·59	0	Comilla.		10
25	2							4	N 31° W	0·3	0·3			92	·474	1·9‖	0	0·46	−0·46	0	0·13	− 0·13	1·44	4·96	− 3·52	0	Sirajganj.		
6	5	5	1			1	3	10	N 22° W	2·3		1·9	+ 21	90	·510	2·1¶	0	0·54	−0·54	0	0·25	− 0·25	0·51	6·41	− 5·90	0	Narayanganj		
8	9	3			1		2	8	N 21° W	1·5	1·5			89	·549	1·6	0	0·54	−0·54	0	0·39	− 0·39	4·02	7·27	− 3·25	0	Barisal.		
30				1					S 45° E	0·2	0·2			91	·479	?	0	0·31	−0·31	0	0·13	− 0·13	1·82	6·36	− 4·54	0	Mymensingh.		
25	5							1	N 9° W	1·2	1·1			87	·540	1·0	0	0·31	−0·31	0	0·11	− 0·11	4·63	5·38	− 0·75	0	Faridpur	Deltaic Bengal	
26	5								N	1·0	1·0	1·7	− 41	83	·466	1·1*	1	0·35	+0·65	0·14	0·18	− 0·04	6·12	5·95	+ 0·17	0·11	Jessore.		
3	13	3		1			3	8	N 17° W	2·9		3·0	− 3	79	·480	1·4	0	0·46	−0·46	0·05	0·24	− 0·19	0·87	5·29	− 4·42	0·05	Calcutta.		
	15	9	1			1	2	3	N 7° E	7·3		6·0	+ 22	89	·565	1·7	0	0·65	−0·65	0·07	0·28	− 0·21	6·45	10·94	− 4·49	0·07	Saugor Island.		
1	5	4	1	2	1	1	6	10	N 37° W	2·1				79	·460	1·8	0	0·19	−0·19	0·01	0·08	− 0·07	0·71	5·24	− 4·53	0·01	Krishnagar.		
4	22	1				1		3	N 5° W	2·2	2·9			72	·457	0·7	1	0·31	+0·69	1·07	0·26	+ 0·81	3·05	5·19	−2·14	1·07	Midnapur		

‖ Mean of 29 days. § Wind variable 4. ¶ Mean of 19 days.

Table

Abstract of Observations taken at 8 A.M. at 220 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 actual pressure (reduced to 32°.)	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure during month.	Date.	Total range of pressure during month.	Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
11	Central Bengal	Bankura	298	29·783?		30·049?	29·887	18th	29·662	4th	·225	62·2	80·1		58·3		69·3		21·8	85·6	7th	55·3	14th	30·3
		Raniganj	334	29·761		30·065	29·857	22nd	29·637	4th	·220	61·5	80·0		56·8		68·5		23·2	84·3	7th	54·2	13th	30·1
		Burdwan	99	30·015	+·018	30·067	30·115	22nd	29·902	4th	·213	63·4	81·3	+3·6	58·6	+2·7	70·0	+3·2	22·7	85·4	6th	55·6	31st.	29·8
		Naya Dumka	489	29·608		30·087	29·702	11th	29·490	4th	·212	60·4	77·6		53·7		65·7		23·9	81·6	5th, 6th & 7th.	50·0	8th & 13th	31·6
		Berhampore	67	30·044	+·017	30·065	30·150	22nd	29·922	4th	·228	61·6	78·4	+1·9	56·7	+1·4	67·6	+1·7	21·7	82·2	6th	53·2	8th & 31st	29·0
		Rampur Boalia.	70	30·036		30·059	30·139	22nd	29·918	4th	·221	61·9	77·7		55·9		66·8		21·8	80·1	12th & 13th.	49·7	31st	30·4
		Malda	72	30·045		30·073	30·151	22nd	29·918	4th	·233	59·8	76·5		53·9		65·2		22·6	79·9	5th	49·1	31st	30·8
		Bogra	61	30·031		30·048	30·139	22nd	29·923	4th	·216	60·5	79·0	+2·1	54·8	+1·2	66·9	+1·7	24·2	81·3	17th & 18th.	50·7	30th	30·6
12	North Bengal	Dinajpur	123	29·968	+·010	30·054	30·079	22nd	29·848	4th	·231	56·0	78·2	+1·6	50·9	−0·4	64·6	+0·6	27·3	81·3	17th	44·9	30th	36·4
		Rangpur	123	29·966		30·051	30·077	22nd	29·842	4th	·235	58·9	77·0		47·9*		62·4*		29·1	79·7	17th	39·8	5th	39·9
		Jalpaiguri	284	29·822	+·027	30·082	29·932	22rd	29·684	4th	·248	57·0	76·6	+1·3	52·9	+0·5	64·8	+0·9	23·7	79·9	14th	47·1	30th	32·8
		Cooch Behar	156	29·956		30·078	30·068	22nd	29·822	4th	·246	57·7	77·4		53·6		65·5		23·8	81·0	12th	49·2	28th	31·8
13	North Bihar	Purnea	125	30·004	?	30·093	30·114	22nd	29·852	4th	·262	54·7	76·0	+0·1	51·3	+1·9	63·7	+1·0	24·7	79·6	12th	46·3	30th	33·3
14	Orissa	Balasore	46	30·068	+·026	30·063	30·159	18th	29·966	4th	·193	65·7	82·4	+3·6	58·3	+3·9	70·4	+3·8	24·1	86·4	6th & 7th	53·5	3rd, 14th & 18th.	32·9
		False Point.	21	30·081	+·012	30·044	30·180	18th	29·987	4th	·193	67·5	80·9	+3·6	60·3	+3·0	70·6	+3·3	20·6	84·4	6th & 7th	56·0	13th & 14th.	28·4
		Cuttack	80	30·025	+·012	30·050	30·130	18th	29·925	4th	·205	66·3	84·5	+2·5	63·4	+5·1	74·0	+3·8	21·1	87·9	7th	59·1	6 days	28·8
		Puri	20	30·084		30·048			29·988	4th	·199	69·8	83·0		65·8		74·4		17·2	85·2	8th & 12th.	61·6	4 days	23·6
	V.—Gangetic Plain and Chota Nagpur.				+·016								75·9	+0·9	52·7	+3·6	64·3	+2·3	23·2					35·5
15	Chota Nagpur	Hazaribagh.	2,007	28·050	+·024	30·094	28·142	11th	27·949	4th	·193	59·2	75·4	+1·8	53·5	+3·3	63·5	+2·6	19·9	77·4	10th & 12th.	47·2	31st	30·2
		Ranchi	2,128	27·925	+·032	30·084	28·020	11th	27·825	4th	·195	60·3	75·1	+3·1	54·8	+5·2	65·0	+4·2	20·3	81·1	7th	50·9	2rd	30·2
		Daltonganj.	730?	29·371?		30·104?	29·467	11th & 12th.	29·251	4th	·216	56·6	78·4		50·3		64·4		28·1	84·0	5th	45·2	19th	38·8
		Purulia		29·275		30·078	29·381	11th	29·168	4th	·213	62·9	79·5		?		?		?	86·1	7th	?		?
		Chaibassa	760	29·325		30·073	29·424	18th	29·210	4th	·214	62·1	80·5	+2·4	57·8	+5·8	69·2	+4·1	22·7	86·8	7th	53·2	3rd, 18th & 19th.	33·6
16	South Bihar	Gaya	375									58·8	77·6	+1·8	54·9	+3·8	66·3	+2·8	22·7	83·3	5th	50·8	25th, 30th & 31st.	32·5
		Dehri	351	29·762		30·089	29·862	11th	29·630	4th	·232	62·1	77·5		56·8		67·2		20·7	83·3	5th	47·6	30th	35·7
		Patna	183	29·932	?	30·079	30·043	22nd	29·788	4th	·255	58·9	75·6	+1·5	53·8	+2·7	64·7	+2·1	21·8	80·5	13th	45·4	30th	35·1
		Arrah	150	29·914?		30·069?	30·028	22nd	29·776	4th	·252	57·5	76·6		52·0		64·3		24·6	81·4	5th 13th & 14th.	45·5	30th	35·9
		Buxar	239	29·888		30·097	29·993	22nd	29·737	4th	·256	61·1	76·7		53·5		65·1		23·2	83·1	13th	42·9	30th	40·2
17	North Bihar	Bhagalpur	160	29·964		30·086	30·064	11th	29·817	4th	·247	61·0	76·9		53·1		65·0		23·8	81·1	5th	47·4	30th	33·7
		Darbhanga.	166	29·938?	+·005	30·070?	30·058	22nd	29·787	4th	·271	57·4	75·3	+1·2	53·7	−0·3	64·5	+0·5	21·6	80·2	14th	45·8	30th	34·4
		Muzaffarpur	178	29·949		30·093	30·071	22nd	29·785	4th	·286	58·6	75·0		51·0		63·0		24·0	79.7	12th	43·3	30th	36·4
		Motihari	224	29·903		30·098	30·030	22nd	29·733	4th	·297	59·2	75·2		48·6		61·9		26·6	80·0	14th & 15th.	41·9	7th	38·1
		Chapra	181	29·928		30·075	30·047	22nd	29·785	4th	·262	56·7	76·6		52·5		64·6		24·1	81·1	13th	45·7	30th	35·4
18	N.-W. Provinces, (East).	Benares	267	29·845	+·013	30·085	29·952	22nd	29·713	4th	·239	58·1	75·4	+0·5	52·7	+4·9	64·1	+2·7	22·7	81·1	5th	47·0	30th	34·1
		Allahabad	309	29·803	+·011	30·087	29·903	22nd	29·679	4th	·224	58·7	76·3	+1·3	52·5	+5·1	64·4	+3·2	23·8	82·6	4 days	44·9	29th	37·7
22	N.-W. Provinces, (East Sub-montane).	Gorakhpur	256	29·854	+·024	30·086	29·991	22nd	29·700	4th	·291	57·2	74·7	+0·4	53·2	+3·0	64·0	+1·7	21·5	79·9	13th	49·1	9th	30·8
19	South Oudh	Lucknow	368	29·738	+·017	30·090	29·847	22nd	29·605	4th	·242	55·0	75·3	−0·2	50·7	+5·1	63·0	+2·5	24·6	85·3	4th & 5th.	45·2	22nd & 29th	40·1
20	North Oudh	Bahraich	403	29·696	+·018	30·090	29·815	22nd	29·539	4th	·276	55·2	74·0	−0·8	50·4	+2·4	62·2	+0·8	23·6	82·1	14th	46·5	7th & 21st.	35·6
21	N.-W. Provinces, (Central).	Cawnpore	416	29·691	+·010	30·093	29·782	22nd	29·567	4th	·215	55·2	74·6	−1·2?	50·6	+3·4?	62·6	+1·1?	24·0	83·3	4th	44·0	29th & 30th.	39·3
		Mainpuri	516	29·581	+·007	30·094	29·677	22nd	29·694	4th	·208	54·4	72·3	−2·3	49·9	+2·6	61·1	+0·2	22·4	82·3	4th	43·6	7th	38·7

* Mean of 24 days. † Mean of 29 days. ‡ Mean of 21 days. § Mean of 30 days.

I—*continued.*

in India, Burma, etc., in December 1900—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 velocity in miles per hour, by anemometer (uncorrected.)	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 31st December 1900.	Normal rainfall for period 1st October to 31st December.	Variation from normal of period, 1st October to 31st December.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
27							4		W	0·5	0·6			72	·405	2·4	1	0·38	+ 0·62	0·17	0·15	+ 0·02	0·42	4·49	− 4·07	0·12	Bankura	Central Bengal	11
10	2		1				5	13	N 50° W	0·9				72	·392	1·9	0	0·31	− 0·31	0·10	0·09	+ 0·01	1·09	3·90	− 2·81	0·05	Raniganj		
21	4						1	5	N 32° W	1·1	1·1	1·9	−42	74	·432	1·6	2	0·19	+ 1·81	0·20	0·15	+ 0·05	0·35	4·43	− 4·08	0·10	Burdwan		
14	2	2	1	3	1	2	2	4	N 45° W	0·6	0·7			77	·404	2·8	0	0·36	− 0·36	0	0·17	− 0·17	1·62	4·76	− 3·14	0	Naya Dumka		
31										0·4	0·4	1·6	−75	81	·445	1·9	0	0·42	− 0·42	0	0·12	− 0·12	0·49	4·51	− 4·02	0	Berhampur.		
6	12	4					5	4	N 16° W	2·4	2·5			82	·455	0·7*	0	0·23	− 0·23	0	0·07	− 0·07	2·51	4·49	− 1·98	0	Rampur Boalia.		
	3	1					9	18	N 53° W	1·9	1·7			83	·430	1·0†	0	0·23	− 0·23	0	0·13	− 0·13	0·91	4·75	− 3·84	0	Malda		
														81	·427	0·2‡	0	0·23	− 0·23	0	0·10	− 0·10	2·76	4·48	− 1·72	0	Bogra		
	5	6		1	1	3	3	12	N 33° W	1·4	1·6			90	·403	1·1§	0	0·23	− 0·23	0	0·08	− 0·08	0·45	4·71	− 4·26	0	Dinajpur	North Bengal	12
7	2	13	3	1	1	3		1	N 51° E	1·3‖	1·3‖			93	·464	0¶	0	0·23	− 0·23	0	0·08	− 0·08	1·98	5·65	− 3·67	0	Rangpur		
	11	7	1	2			2	8	N 1° W	0·8	1·0			90	·420	0·5†	1	0·27	+ 0·73	0·11	0·09	+ 0·02	0·62	5·57	− 4·95	0·11	Jalpaiguri		
15		5	5	5				1	N 85° E	0·8	0·8			92	·430	1·2§	0			0	0·11	− 0·11	1·17	6·16	− 4·99	0	Cooch Behar		
16		1					7	7	N 61° W	2·8	1·6	1·3	+23	93	·400	0·7	1	0·23	+ 0·77	0·11	0·11	0	1·44	3·76	− 2·32	0·11	Purnea	North Bihar	17
8	12					1	2	8	N 25° W	1·8				78	·464	1·4	0	0·58	− 0·58	0	0·28	− 0·28	3·36	7·73	− 4·37	0	Balasore	Orissa.	14
1	12	2						16	N 22° W	4·9	4·7	6·3	−25	87	·593	2·1§	0	0·73	− 0·73	0·04	0·59	− 0·55	7·46	13·01	− 5·55	0·04	False Point.		
31										0·3		1·3	−77	86	·559	1·8	0	0·62	− 0·62	0	0·25	− 0·25	8·72	7·62	+ 1·10	0	Cuttack.		
9	11	1				1		9	N 19° W	8·1	7·6			80	·591	1·1	0	0·73	− 0·73	0	0·50	− 0·50	6·60	12·88	− 6·28	0	Puri.		
																				0·82	0·22	+0·62					**V.—Gangetic Plain and Chota Nagpur.**		
12	3		2	2	6		9	3	N 63° W	5·7	5·1	4·6	+11	** 74	** ·374	3·3	2	0·46	+ 1·54	1·06	0·22	+ 0·84	4·51	3·92	+ 0·59	0·58	Hazaribagh.	Chota Nagpur	15
8	1	1		3	2		5	11	N 68° W	2·8	3·2			73	·382	3·5	1	0·42	+ 0·58	0·38	0·21	+ 0·17	2·87	3·59	− 0·72	0·24	Ranchi.		
17	1	1	6	5	1				S 73° E	1·2	1·4			81	·377	1·9§	3	0·42	+ 2·58	1·56	0·21	+ 1·35	3·10	3·08	+ 0·02	0·85	Daltonganj.		
20	1						5	5	N 61° W	0·6				70	·396	1·6§	1			0·27			1·31			0·19	Purulia.		
20	2	2					3	4	N 34° W	0·7	0·6			81	·458	2·0	1	0·65	+ 0·35	0·26	0·28	− 0·02	1·93	3·45	− 1·52	0·16	Chaibassa.		
7			2	1	12	2	7		S 23° W	4·6	4·2	1·3	+223	82	·407	3·2§	2	0·31	+ 1·69	0·72	0·18	+ 0·54	2·50	2·83	− 0·33	0·60	Gaya	South Bihar.	16
8				3	8	9	3		S 22° W	3·9	3·5			76	·423	2·6†	2	0·38	+ 1·62	1·02	0·32	+ 0·70	4·44	3·23	+ 1·21	0·80	Dehri.		
2	1		1		2	10	8	7	S 81° W	1·8	2·1	1·7	+24	82	·407	2·6††	2	0·31	+ 1·69	0·24	0·13	+ 0·11	1·25	3·55	−2·30	0·13	Patna.		
11	1			2	2	3	8	4	S 8.° W	1·2	1·3			83	·395	2·4†	2	0·27	+ 1·73	0·65	0·16	+ 0·49	1·91	3·25	− 1·44	0·53	Arrah.		
1	1		1	1	4	4	18	1	S 73° W	4·0§	3·6§			75	·396	2·5†	2	0·38	+ 1·62	0·97	0·18	+ 0·79	2·65	3·90	− 1·25	0·65	Buxar.		
21					6	4			S 63° W	1·0	0·9			78	·422	1·9††	0	0·27	− 0·27	0·07	0·07	0	5·35	3·08	+ 2·27	0·07	Bhagalpur	North Bihar.	17
3	7	4	1		1	4	6	5	N 42° W	2·2		2·0	+10	85	·417	2·0†	0	0·27	− 0·27	0·12	0·12	0	1·02	3·03	− 2·01	0·05	Darbhanga.		
31										0·7	0·6			87	·424	1·5†	1	0·19	+ 0·81	0·18	0·10	+ 0·08	2·82	3·38	− 0·56	0·14	Muzaffarpur		
		4	3	2	6	6	3	7	S 51° W	1·3				89	·450	1·6†	2	0·16	+ 1·54	0·51	0·14	+ 0·37	2·83	3·66	− 0·83	0·35	Motihari.		
11				2		9	6	3	S 65° W	1·4	1·8			86	·397	3·0††	1	0·31	+ 0·69	0·35	0·14	+ 0·21	1·30	3·60	− 2·30	0·33	Chapra.		
21				2	1	3	2	3	S 79° W	1·2	1·4	2·4	- 42	86	·418	2·4	2	0·45	+ 1·55	2·12	0·24	+ 1·88	8·27	2·90	+ 5·37	1·29	Benares	N.-W. Provinces (East).	18
6	2	3	2	2	1	4	7	4	N 77° W	2·9	3·4	2·5	+36	82	·419	3·3	2	0·64	+ 1·36	1·46	0·32	+ 1·14	2·20	2·32	− 0·12	0·91	Allahabad.		
	4	2		1	2	4	5	5	N 72° W	1·4		0·9	+56	85	·400	3·2	2	0·45	+ 1·55	0·64	0·17	+ 0·47	6·82	4·04	+ 2·78	0·49	Gorakhpur	N.-W. Provinces (East Sub-montane).	23
11	3	4			1	2	9	1	N 63° W	1·5	1·6	1·7	− 6	83	·362	4·4	3	0·82	+ 2·18	1·25	0·35	+ 0·90	1·25	1·23	+ 0·02	0·74	Lucknow	South Oudh.	19
1	6	1	1				6	7	N 37° W	1·9	1·8			91	·399	3·1	2			0·91	0·45	+ 0·46	0·92	2·14	− 1·22	0·75	Bahraich	North Oudh	20
26	3	1						1	N	0·6				82	·357	3·4	4	0·50	+ 3·50	1·10	0·23	+ 0·87	1·10	1·75	− 0·65	0·43	Cawnpore	N.-W. Provinces (Central).	21
19	4		1	1	2		4		N 61° W	0·7	0·7			83	·353	5·4	4			2·12	0·48	+ 1·64	2·12	1·30	+ 0·82	1·09	Mainpuri.		

‖ Mean of 27 days. ¶ Mean of 26 days. ** Mean of 22 days. †† Mean of 28 days.

Table

Abstract of Observations taken at 8 A.M. at 220 Stations

Number of district.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
	VI.—Upper Sub-Himalayas.				+·023								68·8	−2·8	47·2	+4·1	58·0	+0·7	21·6					37·0
24	N.-W. Provinces (West Sub-montane).	Bareilly	569	29·518	+·020	30·092	29·638	11th	29·381	4th	·257	53·4	71·6	−1·1	49·7	+4·3	60·7	+1·6	21·9	80·8	4th	43·7	29th	37·1
		Dehra Dun	2,233	27·811	+·012	30·123	27·938	11th	27·694	4th	·244	50·5	67·5	−0·8	47·1	+1·6	57·3	+0·4	20·4	75·0	10th & 12th.	41·0	6th, 7th & 28th.	34·0
		Roorkee	887	29·190	+·025	30·112	29·314	22nd	29·063	4th	·251	51·2	70·5	−2·0	46·9	+3·5	58·7	+0·8	23·6	78·8	4th, 12th & 15th.	36·3	7th	42·5
22	N.-W. P. West.	Meerut	738	29·346	+·021	30·108	29·473	22nd	29·229	4th	·244	51·4	71·4	−1·6	48·5	+4·6	60·0	+1·5	22·9	80·0	11th & 12th.	42·2	7th	37·8
26	South-East Punjab.	Delhi	718	29·368	+·012	30·101	29·475	11th	29·270	4th & 5th.	·205	54·7	69·9	−4·4	51·5	+3·0	60·7	−0·7	18·4	79·7	12th	46·6	28th & 29th.	33·1
27	Central Punjab.	Lahore	702	29·394	+·021	30·129	29·508	11th	29·256	24th	·252	47·1	68·4	−3·1	44·7	+4·1	56·6	+0·5	23·7	78·2	1st	39·0	9th, 10th & 29th.	39·2
28	South Punjab	Sirsa	662	29·446	+·031	30·128	29·571	11th	29·334	31st	·237	50·5	70·4	−4·5	45·7	+3·4	58·1	−0·6	24·7	79·7	13th	39·1	26th	40·6
		Patiala	818	29·271		30·118	29·392	15th	29·158	4th	·234	51·4	68·6		47·5		58·1		21·1	75·8	11th & 12th.	42·2	8th	33·6
2	Punjab Sub-montane.	Ludhiana	812	29·276	+·028	30·121	29·385	11th	29·161	24th	·224	50·1	67·2	−4·1	48·0	+4·7	57·6	+0·3	19·2	76·1	12th	41·1	9th	35·0
		Sialkot	830	29·258	+·038	30·128	29·366	22nd	28·139	24th	·227	49·7	67·0	−3·2	46·4	+4·4	56·7	+0·6	20·6	74·5	1st & 2nd.	39·6	7th	34·9
		Umballa	892	29·191	+·030	30·122	29·311	22nd	29·057	4th	·254	49·3	68·4	−3·4?	46·0	+2·4?	57·2	−0·5?	22·4	75·0	13th	39·0	7th	36·0
31	North Punjab	Rawalpindi	1,676	29·395	+·020	30·141	28·505	11th	28·258	24th	·247	45·4	64·7	−2·9	44·0	+7·7	54·2	+2·4	20·7	75·0	2nd	35·0	9th	40·0
	VII.—Indus Valley and North-West Rajputana.				+·016								72·8	−3·2	48·0	+2·1	60·5	−0·6	24·8					41·7
31	North Punjab	Peshawar	1,110	29·009	+·013	30·196	29·132	18th	28·872	24th	·260	45·5	65·0	−2·8	42·2	+4·0	53·6	+0·6	22·8	73·2	2nd, 11th & 12th.	33·4	9th	39·8
32	West Punjab	Khushab	612	29·499	+·013	30·137	29·600	18th	29·367	24th	·233	48·6	69·4	−1·8?	44·4	+2·9	56·9	+0·6?	25·0	79·2	2nd	35·9	9th	43·3
		Montgomery	558	29·558	+·023	30·131	29·663	11th	29·418	24th	·245	49·1	67·8	−4·8	43·8	+1·2	56·4	−1·8	24·0	79·5	1st	36·5	10th	43·0
		D. I. Khan	594	29·544	+·010	30·138	29·640	12th	29·418	24th	·222	46·6	68·8	−4·5	41·6	+1·1	55·2	−1·7	27·2	78·3	2nd	33·5	9th	44·8
		Mooltan	420	29·712	+·013	30·138	29·816	11th & 18th.	29·588	4th	·228	50·3	70·5	−3·2	46·9	+3·4	58·7	+0·1	23·6	79·3	1st	40·5	10th	38·8
47	Sind	Jacobabad	186	29·958	+·028	30·121	30·068	11th	29·847	4th	·221	52·3	73·1	−3·5	47·2	+3·8	60·2	+0·2	25·9	86·0	1st	37·5	8th	48·5
		Hyderabad	96	30·039	+·015	30·095	30·136	11th	29·951	31st	·185	57·0	75·7	−2·9	52·8	+0·5	64·3	−1·2	22·9	83·6	1st & 3rd.	50·0	5 days	35·6
		Kurrachee	30	30·117	+·026	30·099	30·210	13th	30·013	31st	·197	62·2	80·6	−1·0	56·9	+0·7	68·8	−0·2	23·7	88·9	3rd	51·7	9th	37·2
51	West Rajputana	Bikaner	771	29·327	+·005	30·124	29·404	11th	29·210	31st	·194	52·8	72·1	−3·1?	48·6	−1·2?	60·4	−2·2?	23·5	83·2	1st	42·1	29th	41·1
		Pachpadra	380	29·721		30·086	29·800	14th	29·619	1st	·181	56·4	79·7		49·5		64·6		30·2	89·8	1st	42·1	29th	47·7
		Jodhpur	782	29·285		30·098	29·375	15th	28·144	31st	·231	58·0	77·9		54·4		66·2		23·5	88·1	1st	47·2	25th	40·9
	VIII.—East Rajputana, Central India and Gujarat.				−·006								80·1	−0·1	55·8	+4·2	68·0	+2·1	24·3					40·2
50	East Rajputana	Jaipur	1,431	28·648	+·003	30·121	28·748	22nd	28·520	31st	·228	57·1	74·6	−3·0	52·2	+4·1	63·4	+0·6	22·4	84·2	1st	39·0	29th	45·2
		Kotah	819	29·263			29·362	18th	29·133	31st	·229	63·3	74·2		60·9		67·6		13·3	87·5	13th	53·0	9th	34·5
		Sambhar	1,254	28·824	+·003	30·125	28·917	22nd	28·699	31st	·218	52·3	74·1	−1·2	48·4	+2·7	61·3	+0·8	25·7	83·4	1st, 2nd & 3rd.	39·0	29th	44·4
		Ajmer	1,611	28·454	−·017	30·125	28·545	22nd	28·324	31st	·221	54·6	74·3	−1·9	50·8	+6·5	62·6	+2·3	23·5	83·9	3rd	41·9	29th	42·0
		Udaipur	1,925	28·110		30·084	28·196	18th	27·953	31st	·243	58·6	77·0		52·2		64·6		24·8	85·5	1st	44·7	29th	40·8
		Deesa	406	29·601?	−·013	30·048?	29·673	14th & 18th.	29·469	31st	·204	63·3	85·0	−0·1	55·7	+3·7	70·4	+1·8	29·3	91·6	1st & 2nd.	49·6	25th & 29th.	42·0
46	Kathiawar and Cutch.	Bhuj*	395	29·701	+·016	30·070	29·769	15th	29·594	31st	·175	63·5	79·4	−2·4	55·6	+0·2	67·6	−1·1	23·8	90·8	4th	51·0	28th & 29th.	39·8
		Jamnagar	61	29·927?		29·931?	30·097	12th	29·927	31st	·170	64·1	81·2		57·0		69·1		24·2	91·5	24th	49·8	29th	41·7
		Rajkot	429	29·639	+·002	30·044	29·702	14th	29·543	31st	·159	61·7	84·7	−0·7	53·8	+1·7	69·3	+0·5	30·9	90·4	13th	46·0	11th	44·4
		Veraval		30·022	−·025	29·962	30·096	18th	29·937	31st	·159	69·7	85·4	+1·4	64·3	+2·4	74·9	+1·9	21·1	92·1	4th & 5th.	57·8	27th	34·3
		Bhavnagar Para	35	30·023	−·029	30·005	30·099	18th	29·924	31st	·175	64·6	87·4	+3·2	57·4	−0·7?	72·4	+1·3?	30·0	94·6	24th	51·7	16th, 26th & 28th.	42·9
49	Central India	Nowgong	757	29·337	−·002	30·099	29·429	18th	29·231	31st	·198	57·7	74·1	−1·1	53·5	+7·8	63·8	+3·4	20·6	81·5	4th, 13th & 14th.	42·0	29th	39·5
		Indore	1,823	28·227	+·003	30·064	28·331	18th	28·080	31st	·251	63·9	82·5	+4·0	56·1	+7·2	69·3	+5·6	26·4	87·8	5th	48·1	29th & 30th.	39·7
		Neemuch	1,630	28·440	−·016	30·110	28·535	18th	28·293	31st	·242	58·4	79·0	+1·1	53·1	+4·1	66·1	+2·6	25·9	85·5	2nd	46·1	29th	39·4
45	Gujarat	Surat	39	29·994	−·032	29·976	30·083	18th	29·903	31st	·180	66·4	91·3	+4·6	62·4	+5·6	76·9	+5·1	28·9	96·2	4th	57·0	21st	39·2
		Ahmedabad†	164	29·923?	?	30·042?	30·005	18th	29·797	31st	·208	67·8	87·4	+2·0	61·5	+1·9	74·5	+2·0	25·9	93·2	2nd & 5th.	57·2	10th, 20th & 29th.	36·0

* Mean of 28 days. † Mean of 29 days.

I—*continued.*

in India, Burma, etc., in December 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 31st December 1900.	Normal rainfall for period, 1st October to 31st December.	Variation from normal of period, 1st October to 31st December.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																				1·57	0·45	+1·15					VI.—Upper Sub-Himalayas.		
28						1		2	N 71° W	0·4	0·4	2·2	−82	86	·353	2·4	2	0·64	+1·36	1·12	0·31	+0·81	1·12	1·59	− 0·47	0·72	Bareilly	N.-W. Provinces (West Sub-montane).	24
21	2	6	2						N 45° E	1·0		1·7	−41	77	·285	4·3	5	1·10	+3·90	3·25	0·62	+2·63	3·25	1·98	+ 1·27	1·45	Dehra Dun.		
26			1	1				3	N 22° W	1·6		1·3	+23	85	·325	4·0	3	0·91	+2·09	1·85	0·33	+1·52	2·17	0·92	+ 1·29	0·83	Roorkee.		
22	1	1		1			4	2	N 59° W	0·6		1·6	−64	83	·325	4·3	2	1·00	+1·00	1·19	0·32	+0·87	1·19	0·82	+ 0·37	0·63	Meerut	N.-W. Provinces West.	22
13	1			2			11	4	N 79° W	1·3	1·2	2·7	−56	74	·317	5·2	4	0·55	+3·45	1·06	0·30	+0·76	1·22	0·45	+ 0·77	0·55	Delhi	South-East Punjab.	26
25				1			3	2	N 79° W	1·2		1·5	−20	91	·301	4·5	3	0·55	+2·45	0·94	0·38	+0·56	1·11	0·74	+ 0·37	0·39	Lahore	Central Punjab	28
7		7		6		2		9	N 14° E	2·4	2·8	2·2	+27	79	·291	3·2	2	0·73	+1·27	0·44	0·35	+0·09	0·44	0·50	− 0·06	0·23	Sirsa	South Punjab.	27
3	8	4	3	1	2		4	6	N 10° W	5·6				83	·319	4·3	3			1·21			1·21			0·60	Patiala.		
19		3	3	1	1		3	1	N 63° E	2·1	1·9	0·8	+137	85	·309	4·0	3	1·27	+1·73	1·55	0·53	+1·02	1·55	1·02	+ 0·53	0·99	Ludhiana	Punjab (Sub-montane).	29
9	1	4	5	1	1	2	4	4	N 5° E	1·3		1·1	+18	79	·282	3·9	4	0·82	+3·18	1·44	0·63	+0·81	1·55	1·03	+ 0·52	0·48	Sialkot.		
20				2				9	N 45° W	1·5				89	·316	3·8	4			1·85	0·44	+1·41	1·95	0·93	+ 1·02	0·80	Umballa.		
30	1								N	0·4	0·4	1·1	−64	79	·244	4·0	5	1·27	+3·73	3·08	0·76	+2·32	3·67	1·66	+ 2·01	0·85	Rawalpindi	North Punjab.	31
																				0·61	0·16	+0·45					VII.—Indus Valley and North-West Rajputana.		
24					4	1	1	1	S 27° W	1·0	1·1	2·4	−54	74	·229	5·3	3	0·64	+2·36	0·89	0·34	+0·55	1·03	1·02	+0·01	0·45	Peshawar	North Punjab.	31
11	1	4	2	1	1	6	4	1	S 72° W	2·8	3·2			62	·212	3·9	2	0·20	+1·80	0·95	0·16	+0·79	1·21	0·56	+0·65	0·76	Khushab	West Punjab.	32
12	3	4	1		1	1	2	7	N 24° W	3·3	2·8			72	·254	4·0	3	0·40	+2·60	0·47	0·28	+0·19	0·47	0·50	−0·03	0·25	Montgomery		
27							1	3	N 56° W	0·3	0·3	0·3	−63	79	·252	4·4	2	0·27	+1·73	0·63	0·24	+0·39	0·74	0·50	+0·24	0·36	D. I. Khan		
25		4		2					N 71° E	1·1	1·4	1·3	+ 8	78	·283	4·4	2	0·18	+1·82	0·60	0·20	+0·40	0·60	0·30	+0·30	0·20	Mooltan.		
24	2	1	3					1	N 42° E	0·5	0·5	1·6	−69	70	·275	4·9	4	0·09	+3·91	1·43	0·10	+1·33	1·50	0·26	+1·24	0·43	Jacobabad	Sind.	47
2	22	1						6	N 7° W	9·0	9·4	6·5	+45	59	·268	3·2	1	0	+1·00	0·64	0	+0·64	0·64	0·06	+0·58	0·63	Hyderabad.		
		14	17						N 70° E	5·5	6·9	9·2	−25	52	·288	2·9	1	0·10	+0·90	0·30	0·16	+0·14	0·30	0·25	+0·05	0·21	Kurrachee.		
7	5	10	4		1	1	3		N 35° E	6·0		2·4	+150	43	·178	3·6	1			0·26	0·16	+0·10	0·54	0·34	+0·20	0·20	Bikaner	West Rajputana	51
	4	8	9	4	2	1	1	2	N 67° E	4·5		2·1	+114	57	·258	1·9	1			0·17	0·03	+0·14	0·49	0·08	+0·41	0·17	Pachpadra.		
5	3	15	8						N 54° E	4·9	4·4			55	·260	3·8	1			0·35	0·12	+0·23	0·51	0·38	+0·13	0·35	Jodhpur.		
																				0·50	0·15	+0·40					VIII.—East Rajputana, Central India and Gujarat.		
3	3	13	7		1			4	N 44° E	2·9		3·4	−15	68	·308	4·4	1	0·30	+0·70	0·47	0·08	+0·39	0·49	0·62	− 0·13	0·33	Jaipur	East Rajputana	50
15	1	2	3	3			2	5	N 15° E	5·1	6·0			76	·452	1·6	2			1·97	0·29	+1·68	1·97	0·82	+ 1·15	1·54	Kotah.		
14	2	9	6						N 56° E	3·5		3·7	− 5	72	·283	3·6	2	0·60	+1·40	0·73	0·19	+0·54	0·75	0·55	+ 0·20	0·38	Sambhar.		
20	1	7		1		1	1		N 41° E	2·2		1·4	+57	80	·338	3·9	2	0·45	+1·55	0·75	0·15	+0·60	1·24	0·65	+ 0·59	0·50	Ajmer.		
23	3						1	4	N 26° W	1·2	1·2			64	·315	2·1	0			0·09			0·18			0·04	Udaipur.		
	1	16	12		1			1	N 62° E	9·1		8·1	+12	48	·282	1·4	0	0·09	−0·09	0·01	0·06	−0·05	0·01	0·57	− 0·56	0·01	Deesa.		
5	10	3	3	1	1	1	2	2	N 9° E	6·1		5·1	+20	71	·421	1·6	0			0	0·08	−0·08	0	0·45	− 0·45	0	Bhuj	Kathiawar and Cutch.	46
	5	17	6	1		1	1		N 47° E	8·3	8·9			53	·340	0·7	0			0			0			0	Jamnagar.		
3	13	4	7				3	1	N 20° E	5·8	5·7	4·8	+19	48	·269	0·5	0	0	0	0	0·04	−0·04	0	0·85	− 0·85	0	Rajkot.		
	14	15		1				1	N 24° E	5·2	6·1	5·0	+22	45	·326	1·5	0			0	0·09	−0·09	0	2·04	− 2·04	0	Veraval.		
	17				1		2	11	N 22° W	4·3‡	4·4‡			47	·283	1·5	0			0	0·06	−0·06	0	0·96	− 0·96	0	Bhavnagar Para.		
9	6	5	10	1					N 58° E	1·5	1·5	1·2	+25	84	·403	5·4	3	0·64	+2·36	1·80	0·55	+1·25	1·80	1·97	− 0·17	0·88	Nowgong	Central India.	49
8	1	10		7	3	1		1	N 89° E	3·0		2·1	+43	70	·417	2·4	0	0·55	−0·55	0	0·21	−0·21	0	2·11	− 2·11	0	Indore.		
8		8	13	1			1		N 75° E	5·2	4·7	8·1	−42	72	·354	2·8	2	0·73	+1·27	0·37	0·25	+0·12	0·66	0·95	− 0·29	0·15	Neemuch.		
3	10	9	7	2					N 45° E	3·9	6·4	5·0	+28	61	·429	1·4	0	0·18	−0·18	0	0·02	−0·02	0	1·72	− 1·72	0	Surat	Gujarat.	45
	8	13	8						N 45° E	3·4				52	·352	2·1	0			0	0·08	−0·08	0	1·41	− 1·41	0	Ahmedabad.		

‡ Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 220 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
22	N.-W. P., West	Agra	555	29·545	+·003	30·099	29·643	11th	29·433	31st	·210	55·7	74·0	−2·0	53·0	+4·8	63·5	+1·4	21·0	84·0	13th	44·9	29th	39·1
21	N.-W.P., Central	Jhansi	858	29·245	+·019	30·111	29·340	11th	29·093	31st	·247	59·4	76·7	−1·4	56·5	+5·9	66·6	+2·3	20·2	86·7	13th	47·2	29th	39·5
	IX.—Deccan				**+·004**								**85·4**	**+4·5**	**60·0**	**+6·9**	**72·7**	**+5·7**	**25·4**					**36·0**
38	Bombay, Deccan	Belgaum	2,539	27·478	+·009	29·978	27·548	12th	27·415	5th	·133	70·0	84·5	+3·3	61·4	+3·4	73·0	+3·4	23·1	87·3	1st & 21st.	56·9	31st	30·4
		Sholapur	1,590	28·453	+·005	30·024	28·533	18th	28·391	5th	·142	71·8	89·0	+4·1	63·2	+6·3	76·1	+5·2	25·8	91·7	21st & 29th.	58·1	15th & 16th.	33·6
		Poona	1,840	28·201	−·006	30·040	28·318	18th	28·122	31st	·196	65·9	88·7	+5·3	58·1	+4·3	73·4	+4·8	30·6	92·5	1st	51·0	26th	41·5
		Bijapur	1,946	28·091	?	30·019	28·167	12th	28·024	5th	·143	69·3	88·4	+4·8	63·3	+7·1	75·9	+6·0	25·1	92·2	22nd	59·2	17th	33·0
40	Khandesh	Malegaon	1,430	28·609	−·014	30·035	28·727	18th	28·522	4th	·205	68·3	91·0	+7·8	59·5	+9·2	75·3	+8·5	31·5	94·5	27th	54·0	19th	40·5
		Ahmednagar	2,152	27·910?	?	30·054?	28·020	18th	27·840	4th	·180	67·8	87·1	+4·4	56·2	+4·7	71·7	+4·6	30·9	90·4	1st	49·8	16th	40·6
41	Berar	Akola	930	29·131	−·004	30·048	29·257	18th	29·015	31st	·242	67·0	88·6	+6·6	59·4	+9·4	74·0	+8·0	29·2	91·9	5th & 7th.	51·5	19th	40·4
		Amraoti	1,215	28·852	+·008	30·055	28·957	18th	28·744	31st	·213	70·0	86·9	+5·2	62·0	?+6·6	74·5	?+5·9	24·9	91·2	5th	55·9	15th	35·3
42	Central Provinces, West.	Khandwa	1,044	29·009	−·003	30·048	29·119	18th	28·871	31st	·248	66·7	88·1	+6·4	59·7	+1·8	73·9	+8·6	28·4	92·2	5th & 6th.	54·1	17th, 18th & 19th.	38·1
		Hoshangabad	1,006	29·078	+·009	30·088	29·198	18th	28·870	31st	·328	64·0	81·6	+2·8	59·0	+8·3	70·3	+5·6	22·6	86·7	3rd	51·8	29th	34·9
		Nagpur	1,025	29·036	−·004	30·055	29·148	18th	28·929	31st	·219	66·6	85·9	+5·6	61·1	+7·8	73·5	+6·7	24·8	90·1	5th	56·2	14th & 18th.	33·9
43	Central Provinces, Central.	Chanda	634	29·452	−·012	30·056	29·567	18th	29·350	31st	·217	67·6	86·8	+5·2	61·4	+10·3	74·1	+7·8	25·4	89·2	4 days.	53·7	18th	35·5
		Seoni	2,033	28·029	+·016	30·076	28·130	12th	27·905	31st	·225	62·8	81·9	+4·7	56·4	+7·4	69·2	+6·1	25·5	86·8	5th	51·5	18th	35·3
		Jubbulpore	1,327	28·724?	?	30·073?	28·826	12th	28·574	31st	·252	60·1	79·6	+3·6	54·9	+9·7	67·3	+6·7	24·7	86·4	6th	49·4	17th & 18th.	37·0
		Saugor	1,807	28·258	+·002	30·093	28·350	11th & 18th.	28·107	31st	·243	61·0	78·5	+2·6	56·7	+5·7	67·6	+4·2	21·8	85·9	3rd	45·1	29th	40·8
49	Central India	Sutna	1,040	29·043	+·005	30·101	29·131	22nd	28·896	31st	·235	59·3	76·1	+1·4	54·4	+8·2	65·3	+4·8	21·7	83·4	4th	44·8	29th	38·6
44	Central Provinces, East.	Raipur	970	29·098	−·001	30·058	29·211	18th	28·969	31st	·242	66·4	83·8	+5·5	60·3	+7·0	72·1	+6·3	23·5	89·3	10th	51·8	19th & 20th.	37·5
		Sambalpur	486	29·612	+·005	30·069	29·712	12th	29·523	4th	·189	66·2	83·4	+4·1	59·8	+6·0	71·6	+5·1	23·6	87·6	7th & 8th.	54·1	18th & 19th.	33·5
39	Hyderabad (North).	Indur		28·776			28·881	18th	28·700	31st	·181	70·9	86·2		60·8		73·5		25·4	89·1	22nd	54·1	20th	35·0
		Bidar	2,165?	27·625?		29·740?	27·637	31st	27·612	7th	·025	71·7	85·1		?		?		?	89·7	21st	?		?
53	Hyderabad (South).	Gulbarga	1,502	28·584?		30·069?	28·676	18th	28·507	5th	·169	71·2	88·4		62·1		75·2		26·3	91·0	21st	54·3	15th	36·7
		Raichur	1,309	28·750	+·025	30·034	28·823	23rd	28·686	5th	·137	72·8	87·3	+2·6	66·4	+3·0	76·9	+2·8	20·9	89·6	21st	59·2	15th	30·4
		Hyderabad (Deccan).	1,690	28·366	+·021	30·051	28·444	18th	28·300	5th & 31st.	·144	67·2	85·7	+4·1	61·1	+4·5	73·4	+4·3	24·6	88·9	21st	55·3	16th	33·6
		Secunderabad	1,787	28·268	?	30·051	28·347	18th	28·204	5th	·143	66·6	86·1	+4·5	61·3	+4·7	73·7	+4·6	24·8	90·1	21st	54·7	15th	35·4
		Hanumkonda	865	29·177		30·039	29·264	18th	29·113	5th & 31st.	·151	70·0	86·2		62·5		74·4		23·7	89·0	31st	56·2	15th	32·8
	X.—West Coast				**+·003**								**88·4**	**+1·3**	**72·5**	**+2·9**	**80·5**	**+2·1**	**16·0**					**23·3**
37	Konkan	Bombay	37	30·001	−·003	29·978	30·082	18th	29·907	5th	·175	75·1	86·0	+1·9	72·1	+2·6	79·1	+2·3	13·9	90·0	19th	66·0	28th	24·0
		Ratnagiri	110	29·902	+·005	29·951	29·980	18th	29·827	5th	·153	76·9	90·7	+1·4	71·3	+4·5	81·0	+3·0	19·4	95·9	7th	65·9	28th	30·0
		Mormugao	60	29·967?	−·001	29·962?	30·040	18th	29·899	5th	·141	75·2	88·0	+1·6	73·3	+2·7	80·7	+2·2	14·7	91·0	19th	70·9	10th, 16th & 25th.	20·1
		Goa	199	29·811	+·004	29·949	29·882	18th	29·735	5th	·147	75·8	86·9	−0·7	72·5	+2·9	79·7	+1·1	14·4	90·5	4th	70·0	4 days	20·5
		Karwar	44	29·973	+·009	29·950	30·036	12th & 18th.	29·905	4th	·131	71·6	89·7	+2·5	69·1	+2·7	79·4	+2·6	20·6	93·8	19th	66·5	10th, 11th & 25th.	27·3
38	Malabar	Cochin	11	29·986	+·011	29·924	30·053	22nd	29·915	1st	·138	77·4	92·2	?+4·3	73·9	?+1·2	83·1	+2·8?	18·3	95·0	14th & 27th.	70·2	9th	24·8
		Calicut	27	29·869	−·003	29·926	30·034	22nd	29·910	6th	·124	77·7	88·4	+0·9	72·5	+2·1	80·5	+1·5	15·9	90·8	21st	67·5	24th	23·3
		Mangalore	65	29·943	0	29·940	30·006	22nd	29·883	5th	·123	78·2	90·3	+1·8	73·3	+2·8	81·8	+2·3	17·0	94·3	19th	69·0	10th & 24th.	25·3
		Trivandrum	198	?29·768	?	29·899?	29·817	12th	29·706	31st	·111	77·2	83·7	+0·7	74·1	?+2·4	78·9	+1·6?	9·6	85·5	16th	71·0	29th	14·5
	XI.—South India				**+0·20**								**85·2**	**+2·3**	**67·6**	**+2·0**	**76·4**	**+2·2**	**17·5**					**25·0**
57	Madras (South).	Pamban	37	29·973		29·937	30·022	22nd	29·897	1st	·125	77·9	82·7		75·7		79·2		7·0	84·8	10th	74·2	6 days	10·6
		Tinnevelly	168	29·870	+·018	29·970	29·949	22nd	29·792	1st	·157	76·6	86·2	0	73·0	+0·4	79·7	+0·2	13·2	90·2	30th	69·9	23rd	20·3
		Madura	447	29·577	+·027	29·968	29·637	22nd	29·495	1st	·142	76·9	87·0	+1·0	71·5	+1·1	79·3	+1·1	15·5	90·4	13th & 18th.	68·6	28th & 29th.	21·8
		Periyakulam		29·086			29·143	22nd	29·011	1st	·132	73·5	87·2		66·9		77·1		20·3	91·4	12th	60·6	23rd	30·8

1—*continued*.

in India, Burma, etc., in December 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 31st December 1900.	Normal rainfall for period, 1st October to 31st December.	Variation from normal of period, 1st October to 31st December.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
4		6		3		7		11	N 50° W	2·8	3·3	2·6	+27	80	·351	3·0	4	0·55	+3·45	1·27	0·19	+1·08	1·27	0·71	+0·56	0·40	Agra	N.-W. P., West	22
24	1	1		3		2			S 30° E	1·3		2·3	−43	78	·393	2·4	4	0·36	+3·64	1·50	0·13	+1·37	1·53	0·95	+ 0·58	0·72	Jhansi	N.-W. P., Central	24
																				0·22	0·4	− 0·24					IX.—Deccan.		
5		1	11	11	2		1		S 64° E	9·9		12·3	−20	60	·437	2·2	0	0·18	−0·18	0	0·13	− 0·13	2·17	8·63	− 6·46	0	Belgaum	Bombay Deccan.	38
	1	1	8	19	1	1			S 58° E	9·5	6·8	6·8	0	47	·367	1·5	0	0·91	−0·91	0	0·60	− 0·60	1·74	6·85	− 5·11	0	Sholapur.		
11	1	3	7	3	1	1		4	N 75° E	6·1	6·9	5·7	+21	57	·262	1·5	0	0·82	−0·82	0	0·26	− 0·26	2·40	6·37	− 3·97	0	Poona.		
9			10	11	1				S 64° E	2·1	2·1			66	·475	0·7	0	0·09	−0·09	0	0·43	− 0·43	1·17	5·09	− 3·92	0	Bijapur.		
	4	5	1	1	8		7	5	N 66° W	3·5	4·0	3·5	+14	54	·376	1·1	0	0·82	− 0·82	0	0·37	− 0·37	0	3·85	− 3·85	0	Malegaon	Khandesh.	40
4	2	1	1	10	8			5	S 31° E	7·0	8·5			63	·420	1·1	0			0	0·55	− 0·55	0·01	3·59	− 3·58	0	Ahmednagar.		
8		9	11	2	1				N 77° E	2·4	2·6	3·1	−16	60	·396	2·5	0	0·95	−0·95	0	0·96	− 0·96	0	5·21	− 5·21	0	Akola	Berar.	41
	1	16	11	1	1	1			N 67° E	8·0	7·1	3·1	+129	58	·428	2·9	1	1·09	−0·09	0·11	0·73	− 0·62	0·11	4·23	− 4·12	0·11	Amraoti.		
9		1	15	3	1		1	1	S 84° E	3·6		2·4	+50	60	·392	2·1	0	0·64	−0·64	0	0·56	− 0·56	0	2·60	− 2·60	0	Khandwa	Central Provinces, West.	42
		29				1		1	N 44° E	5·2	5·3	2·4	+121	71	·427	2·7	1	1·00	0	0·58	0·63	− 0·05	0·58	3·06	− 2·48	0·58	Hoshangabad.		
25	1	3	1	1					N 57° E	2·8		3·5	−20	69	·456	3·6	0	1·00	−1·00	0	0·94	− 0·64	0	4·49	− 4·49	0	Nagpur.		
23	1	1	1	2	2		1		S 51° E	1·6		1·6	0	75	·517	2·2	0			0	0·46	− 0·46	0	3·82	− 3·82	0	Chanda	Central Provinces, Central.	43
	7	8	3	3	3	3	1	3	N 37° E	3·3		2·5	+32	73	·417	2·8	1	0·91	+0·09	0·53	0·67	− 0·14	0·53	3·63	− 3·10	0·40	Seoni.		
3	4	5	4	6	6		2	1	S 77° E	2·5		1·8	+39	84	·440	2·1	2	0·91	+1·09	0·92	0·38	+ 0·54	1·68	2·95	− 1·27	0·68	Jubbulpore.		
	1	9	8	11	2				S 84° E	3·2	3·6	2·5	+44	68	·364	3·1	1	0·73	+0·27	0·88	0·76	+ 0·12	0·88	2·66	− 1·78	0·82	Saugor.		
8	1	2	8	1			5	6	N 9° E	2·3	2·5	3·6	−31	76	·385	3·2	2	0·91	+1·09	2·16	0·42	+ 2·04	4·22	3·09	+ 1·13	1·50	Sutna	Central India	45
22	1	2	3			2		1	N 53° E	2·9	2·7	2·6	+ 4	72	·470	2·8	0	1·07	−1·07	0	0·35	− 0·35	6·14	3·16	+ 2·98	0	Raipur	Central Provinces, East	46
1	11	12	3	1	1			2	N 29° E	2·0	2·0	1·4	+43	77	·503	1·8	0			0	0·34	− 0·34	0·99	3·03	− 2·04	0	Sambalpur.		
14		2		12	1	2			S 42° E	3·4	3·3			74	·557	1·3	0			0	0·40	− 0·40	0·18	4·09	− 3·91	0	Indur	Hyderabad (North).	51
			5	8	4	8	6		S 4° W	7·4†	6·2†			65	·507	3·8	0			0	0·61	− 0·61	0·02	5·41	− 5·39	0	Bidar.		
4		1	12	7	7				S 59° E	7·4	7·1			59	·450	0·8	0			0	0·40	− 0·40	1·85	4·10	− 2·25	0	Gulbarga	Hyderabad (South).	52
3			7	16	4	1			S 48° E	7·2	7·1			62	·503	2·7	0			0	0·09	− 0·09	0·24	5·67	− 5·33	0	Raichur.		
30			1						E	3·2	3·1			73	·487	1·0	0			0	0·27	− 0·27	1·46	5·11	− 3·65	0	Hyderabad (Deccan).		
10		4	14	2					N 88° E	4·5		3·2	+36	76	·494	1·9	0			0	0·27	− 0·27	2·85	5·11	− 2·26	0	Secunderabad.		
8				11	11	1			S 20° E	5·6	4·8			77	·569	2·2	0			0			2·09			0	Hanumkonda.		
																				0·43	0·72	−0·29					X.—West Coast.		
	2	14	12	1	1			1	N 63° E	8·2		10·0	−18	73	·640	2·3	0	0·18	−0·18	0	0·09	− 0·09	0	3·22	− 3·22	0	Bombay	Konkan.	37
10		2	11	8					S 76° E	3·5	3·5	9·9	−65	61	·555	1·2	0	0·27	−0·27	0	0·08	− 0·08	0·08	4·86	− 4·78	0	Ratnagiri.		
		1	24	6					S 83° E	7·4*				78	·680	1·1	0			0	0	0	0·66	8·25	− 7·59	0	Mormugao.		
		8	23						N. 79° E	6·0†				71	·634	1·8	0			0	0·09	− 0·09	0·24	7·51	− 7·27	0	Goa.		
13		4	14						N 80° E	3·0				78	·600	0·9	0	0·18	−0·18	0	0·09	− 0·09	0·65	10·40	− 9·75	0	Karwar.		
1	10	18	1					1	N 23° E	4·6				75	·712	1·9	1	3·36	−2·36	1·18	1·81	− 0·63	13·31	22·59	− 9·28	1·15	Cochin	Malabar.	39
		19	8	4					N 66° E	7·2	9·1			79	·739	1·6	2	2·11	−0·11	1·28	1·31	− 0·03	10·67	16·54	− 5·87	0·93	Calicut.		
3			17	11					S 73° E	2·2		3·5	−37	71	·685	3·4	1	1·10	−0·10	0·74	0·48	+ 0·26	3·02	11·39	− 8·37	0·74	Mangalore.		
11	4	7	5		2	1		1	N 51° E	3·4‡				80	·756	3·4	2			0·68	2·52	− 1·84	13·67	19·52	− 5·85	0·28	Trivandrum.		
																				1·97	2·66	−0·69					XI.—South India.		
	14	12	1					4	N 16° E	15·9	16			91	·862	4·0	13	7·00	+6·00	5·91	9·11	− 3·20	24·35	25·52	+3·83	1·62	Pamban	Madras (South)	
	16	8					1	6	N 1° E	4·8	4·6			82	·758	7·0	6	6·50	−0·50	2·51	3·53	− 1·02	18·60	19·53	− 0·93	0·87	Tinnevelly.		
	13	14	1	1				2	N 23° E	4·1	4·1	4·9	−16	79	·733	3·6	6	4·36	+1·64	1·40	1·81	− 0·41	10·18	14·68	− 4·50	0·49	Madura.		
26			1	2		1		1	S 45° E	2·3	2·5			77	·642	3·7	5			1·65			13·24			0·66	Periyakulam.		

* Mean of 29 days. † Mean of 17 days. ‡ Mean of 28 days.

Table

Abstract of Observations taken at 8 A.M. at 220 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 actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity, 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.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
34	Madras, South Central.	Salem	940	29·119	+·021	30·016	29·195	22nd	29·054	31st	·141	74·8	88·8	+2·8	67·3	+2·2	78·1	+2·5	21·5	92·7	28th	61·9	8th	30·8
		Coimbatore	1,348	28·685	+·026	30·002	28·759	22nd	28·628	31st	·133	72·4	85·6	+0·9	67·4	+1·1	76·5	+1·0	18·2	89·4	18th	61·8	23rd	27·6
	Coorg	Mercara	3,781	26·279	−·005		26·329	22nd	26·238	1st	·091	63·5	78·5	+4·0	59·5	+1·9	69·0	+3·0	19·0	81·0	4 days	55·7	23rd & 30th.	25·3
36	Mysore	Chitaldroog	2,405	27·627	+·003	29·982	27·692	18th & 22nd	27·564	31st	·128	71·1	85·9	+5·0	63·7	+3·0	74·8	+4·0	22·2	88·6	22nd & 26th.	59·9	7th, 23rd & 24th.	28·7
		Bangalore	3,021	27·043	+·013	30·014	27·112	22nd	26·984	5th	·128	65·7	80·3	+2·8	60·4	+1·8	70·4	+2·3	19·9	83·8	28th	55·9	5th	27·9
		Hassan	3,091	26·974		30·005	27·038	22nd	26·919	4th	·119	68·9	81·6		58·2		69·9		23·4	84·0	2nd & 26th.	52·9	24th	31·1
		Mysore	2,518	27·531	+·016	29·999	27·607	22nd	27·466	5th.	·141	70·1	84·1	+2·7	62·4	+2·1	73·3	+2·4	21·7	87·1	1st & 26th.	57·9	31st	29·2
56	Madras, East Coast, South.	Negapatam	31	30·014	+·037	29·974	30·089	22nd	29·946	5th	·143	78·7	83·1	+2·1?	74·3	+2·5?	78·7	+2·3?	8·8	86·2	8th	70·4	23rd	15·8
		Cuddalore	12	30·039	+·020	29·980	30·117	22nd	29·976	31st	·141	75·4	83·6	+0·5	71·5	+1·8	77·6	+1·2	12·1	85·6	11th & 18th.	68·2	4th	17·4
		Trichinopoly	255	29·786	+·021	29·979	29·854	22nd	29·712	1st	·142	75·8	86·4	+1·9	70·6	+1·6	78·5	+1·8	15·8	90·0	15th	65·9	23rd	24·1
		Madras	22	30·035	+·016	29·988	30·101	22nd	29·974	31st	·127	76·9	84·9	+1·3	70·6	+0·8	77·8	+1·1	14·3	87·0	10th	64·0	28th	23·0
		Vellore	707	29·336		30·003	29·426	22nd	29·281	4th	·145	71·0	84·7		66·5*		75·5*		18·2	86·9	9th & 21st.	58·9	20th	28·0
55	Madras, East Coast, Central.	Nellore	71	30·007	+·025	30·012	30·085	22nd	29·943	31st	·142	74·7	86·3	+1·7	70·0	+1·5	78·2	+1·6	16·3	87·8	1st & 21st.	66·6	27th	21·2
		Masulipatam	15	30·077	+·037	30·027	30·153	22nd	30·011	31st	·142	74·4	85·5	+3·0	68·6	+2·1	77·1	+2·6	16·9	88·5	4th	66·2	4 days	22·3
54	Madras, Central	Cuddapah	433	29·630	+·008	30·013	29·702	22nd	29·573	31st	·129	74·8	88·2	+3·4	67·2	+1·2	77·7	+2·3	21·0	90·7	29th	63·4	5th & 30th.	27·3
		Kurnool	924	29·131	?	30·027	29·237	22nd	29·061	31st	·176	69·8	89·1	+3·7	62·8	+3·4	76·0	+3·6	26·3	92·2	29th	57·8	7th & 16th.	34·4
		Bellary	1,475	28·575	+·019	30·027	28·643	12th	28·508	5th	·135	71·6	89·7	+4·4	64·4	+3·7	77·1	+4·1	25·3	93·0	29th	61·1	6th & 8th.	31·9
52	Madras, East Coast, North.	Cocanada	26	30·058	+·025	30·019	30·142	18th	29·994	31st	·148	74·2	83·0	+2·8	68·1	+2·8	75·6	+2·8	14·9	86·6	7th	65·5	16th	21·1
		Waltair (Vizag.)	226	29·860	+·023	30·032	29·946	18th	29·781	4th	·165	75·8	82·7	+2·4	70·3	+2·2	76·5	+2·3	12·4	87·9	8th	66·4	4th	21·5
		Gopalpur	21	30·081	+·009	30·042	30·186	18th	29·984	4th	·202	70·4	81·9	+1·7	63·5	+2·4	72·7	+2·1	18·4	86·8	8th	59·1	17th	27·7
	XII.—Hill Stations.																							
48	Baluchistan	Shahrig		25·892			25·980	11th, 13th & 14th.	25·750	31st	·230	45·3	60·1		25·1		42·6		35·0	69·0	1st & 12th.	18·0	25th & 27th.	51·0
		Pishin											53·0		29·9		41·5		23·1	62·0	12th	22·0	8th	40·
		Quetta	5,502	24·730	−·011		24·853	13th	24·546	30th	·307	35·9	52·3	−4·8	32·5	+3·7	42·4	−0·6	19·8	61·7	11th	25·8	8th	35·9
		Kalat										38·0	52·1		26·3		39·2		25·8	64·1	11th	16·6	5th	47·5
		Chaman	4,311	25·834	?		25·969	13th	25·674	30th	·295	42·3	55·2	−3·3	38·8	+0·8	47·0	−1·3	16·4	64·3	12th & 16th.	34·1	5th & 8th.	30·2
30	Punjab	Leh	11,503	19·724	−·013		19·914	11th	19·431	25th	·483	18·1	33·3	−4·8	14·5	+0·9	23·9	−2·0	18·8	42·6	4th	8·0	29th	34·6
		Srinagar	5,204	25·023	−·021		25·185	11th	24·806	24th	·379	32·4	47·1	−0·7	30·8	+2·5	39·0	+0·9	16·3	59·9	1st	24·1	15th	35·8
		Astor (Kashmir)		22·718			22·907	7th	22·521	27th	·386	25·6	39·5		21·9		30·7		17·6	49·9	2nd	−3·0	26th	52·9
		Minimarg		21·378			21·552	11th	21·135	24th	·417	21·6	34·8		16·2		25·5		18·6	44·0	5th & 20th.	3·0	29th	41·0
		Skardu		23·023			23·244	11th	22·714	25th	·530	26·4	38·3		23·5		30·9		14·8	51·5	2nd	14·1	28th	37·4
		Dras		20·847			21·056	11th	20·559	25th	·497	13·2	28·8		4·2		16·5		24·6	41·8	1st	−15·9	29th	57·7
		Gilgit		25·350			25·544	7th	25·040	24th	·504	39·6	49·6		35·4		42·5		14·2	58·4	3rd	30·1	25th	28·3
		Chitral		24·713			24·800	4 days	24·600	24th, 26th & 27th.	·200	37·3	75·2†		34·7?		54·8†		40·5?	85·1	2nd, 8th & 12th.	26·0	4 days	57·1
		Killa Drosh										37·7	65·2		33·6		49·4		31·6	74·7	28th	26·8	29th	47·9
		Para Chinar	6,000									39·6	50·4		33·2		41·8		17·2	60·0	10th	26·8	27th	33·2
		Cherat		25·819	−·002		25·945	11th	25·654	31st	·291	45·2	51·9	−3·5	42·5	+0·1	47·2	−1·7	9·4	62·8	1st	35·0	27th	27·8
		Murree	6,333	23·920	+·012		24·060	11th	23·734	24th	·326	41·0	47·9	−5·8	37·5	−2·5	42·7	−4·2	10·4	56·7	8th	29·5	28th	27·2
		Poo																						
		Simla	7,224	23·177	+·009		23·305	11th & 18th.	23·029	31st	·276	40·4	47·7	−3·6	37·6	−2·6	42·7	−3·1	10·1	54·5	9th	39·2	14th	24·3
35	N.-W. Provinces	Chakrata	7,022	23·355	+·026		23·483	11th	23·219	31st	·264	41·3	52·3	−2·7	37·9	−1·7	45·1	−2·2	14·4	62·8	9th	31·3	14th	31·5
		Mussooree	6,705	23·639	+·019		23·807	12th	23·505	31st	·302	41·8	48·8	−3·8	39·1	−1·5	44·0	−2·7	9·7	57·2	18th	32·0	15th	25·2
		Ranikhet	6,069	24·205	+·039		24·333	11th	24·080	31st	·253	44·9	55·1	−3·1	42·2	−0·4	48·7	−1·8	12·9	62·2	4 days	33·5	28th	28·7
		Muktesar		22·916			25·041	11th	22·785	31st	·256	42·5	52·2		37·6		44·9		14·6	61·0	8th	30·9	25th	30·1

* Mean of 22 days.

† Mean of 29 days.

I—*continued.*

in India, Burma, etc., in December 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 31st December 1900.	Normal rainfall for period, 1st October to 31st December.	Variation from normal of period, 1st October to 31st December.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
11	1	9	8	1			1		N 65° E	4·8	4·3	4·0	+ 8	74	·650	3·8	0	3·18	−3·18	0·12	1·39	− 1·27	4·52	12·24	− 7·72	0·06	Salem .	MADRAS, (SOUTH CENTRAL).	24
		2	29						N 87° E	3·4	3·0	3·0	0	83	·667	5·7	4	3·45	+0·55	0·91	1·21	− 0·30	12·66	10·87	+ 1·79	0·46	Coimbatore.		
1		15	14	1					N 67° E	8·2	7·6	4·7	+62	86	·512	6·3	0	1·50	−1·50	0	0·70	− 0·70	6·77	13·64	− 6·87	0	Mercara .	COORG.	25
		3	15	10	1		2		S 75° E	10·0	8·7			70	·537	3·3	0			0	0·40	− 0·40	3·36	7·62	− 4·26	0	Chitaldroog.	MYSORE.	26
		9	20	1			1		N 78° E	9·2	8·0	3·9	+105	82	·522	4·8	1	1·36	−0·36	0·54	0·55	− 0·01	6·73	11·29	− 4·56	0·53	Bangalore.		
		3	18	10					S 80° E	3·4	3·0			74	·521	5·3	0			0·01	0·65	− 0·64	11·25	8·26	+ 2·99	0·01	Hassan.		
		16	11	4					N 71° E	9·7	10·5			74	·542	5·0	1			0·25	0·46	− 0·21	9·32	8·77	+ 0·55	0·25	Mysore.		
	6	12						13	N 2° W	16·8	14·8	6·8	+118	83	·821	5·6	11	11·00	0	13·90	12·41	+ 1·49	41·90	38·95	+ 2·95	5·37	Negapatam	MADRAS, EAST COAST, SOUTH.	56
13	10	2						6	N 10° W	2·7	3·3			88	·781	5·2	11	6·90	+4·10	8·31	6·48	+ 1·83	26·55	28·87	− 2·32	2·12	Cuddalore.		
15	8	8							N 23° E	3·7		5·0	−26	84	·746	3·8	7	5·64	+1·36	3·04	2·55	+ 0·49	12·18	15·41	− 3·23	1·09	Trichinopoly.		
	20	10						1	N 13° E	7·0		7·6	− 8	82	·771	4·4	5	5·73	−0·73	2·45	5·28	− 2·83	14·63	29·49	−14·86	1·10	Madras.		
31										1·5				87	·664	3·9	2			2·09			10·07			1·37	Vellore.		
1		3					5	22	N 46° W	3·5				88	·757	4·7	2	3·80	−1·80	0·92	3·36	− 2·44	15·66	22·84	− 7·18	0·74	Nellore .	MADRAS, EAST COAST, CENTRAL.	55
4	15	12							N 19° E	6·5		5·7	+14	78	·662	2·3	0	1·45	−1·45	0	1·06	− 1·06	5·36	17·46	−12·10	0	Masulipatam.		
		10	5	1		3	1		S 79° E					78	·677	2·4	3	1·50	+1·50	1·18	1·19	− 0·01	3·98	12·19	− 8·21	0·57	Cuddapah.	MADRAS (CENTRAL).	54
31														73	·534	0·7	0	1·00	−1·00	0	0·20	− 0·20	1·57	6·38	− 4·81	0	Kurnool.		
2			7	22					S 56° E	4·6	4·9	3·1	+58	62	·483	4·4	0	0·45	−0·45	0	0·14	− 0·14	2·75	6·56	− 3·81	0	Bellary.		
13	7	10		1					N 31° E	7·5	6·9			74	·618	2·0	0	1·00	−1·00	0·02	0·76	− 0·74	5·30	18·53	−13·23	0·02	Cocanada .	MADRAS, EAST COAST, NORTH.	52
5	1	18					1	6	N 22° E	9·5				64	·559	2·3	0			0·03	2·49	− 2·46	11·45	19·93	− 8·48	0·03	Waltair (Vizag.).		
	14							17	N 25° W	8·4	8·2	6·9	+19	81	·593	0·3	0	1·18	−1·18	0·05	0·91	− 0·86	12·76	15·25	− 2·49	0·05	Gopalpur.		
																											XII.—Hill Stations.		
11		1	1			1		11	N 70° W	4·2				60	·179	3·6	5			2·94	1·05	+ 1·89	3·72	2·20	+ 1·52	0·78	Shahrig .	BALUCHISTAN .	48
																	8			3·69	1·37	+ 2·32	3·69	2·18	+ 1·51	1·10	Pishin.		
25				1	4	1			S	1·6	1·7	2·7	−37	86	·180	5·8	8	0·91	+7·09	4·24	0·73	+ 3·51	5·91	1·07	+ 4·84	1·38	Quetta.		
	1		5		22		3		S 5° E					73	·168		8			4·78	0·60	+ 4·18	6·01	1·02	+ 4·99	1·04	Kalat.		
		2	6	13	2	5		3	S 45° E	5·2	5·5			83	·236	5·3	8			3·36	1·32	+ 2·04	4·81	1·89	+ 2·92	0·77	Chaman.		
		13	10	2	3	2		1	N 77° E	2·1		1·3	+62	57	·057	7·0	1			0·16	0·16	0	0·34	0·49	− 0·15	0·12	Leh . .	PUNJAB.	30
18	4	1	1	2	1		2	2	N 4° W	2·4	2·6			91	·169	6·7	7			2·48	0·84	+ 1·64	4·38	1·72	+ 2·66	0·58	Srinagar.		
11					5	12	3		S 40° W	4·3				66	·092	6·6	9			2·38						0·75	Ashtor (Kashmir).		
22		1	2	4	1		1		S 54° E	3·4				77	·088	7·2	13			5·72						1·38	Minimarg.		
27		1				1	1	1	N 66° W	1·6	1·9			89	·128	8·4	3			1·20	0·88	+ 0·32	1·34	1·03	+ 0·31	0·44	Skardu.		
30						1			S 45° W	0·5	0·5			91	·075	7·1	9			3·04	1·50	+ 1·54	3·74	5·14	− 1·40	0·90	Dras.		
27						1	3		S 76° W	1·0	1·0			57	·137	7·6	1			0·28	0·07	+ 0·21	0·58	0·30	+ 0·28	0·12	Gilgit.		
	20						3	1	N 11° W	?	?			83	·188		0			0						0	Chitral.		
11	3	1	4	4	2	5	1		S 31° E					77	·173	4·8	6			1·47			4·57			0·51	Killa Drosh.		
	10	3	2	1	2	3	4	6	N 27° W	2·2				65	·154	5·4	4			1·45			5·37			0·53	Para Chinar.		
	20	3	1		3			4	N 1° E	16·9	15·7			53	·156	4·5	4			3·04	0·72	+ 2·32	3·23	1·06	+ 2·17	1·24	Cherat.		
8	1			16	6				S 34° E	6·4	7·9	6·1	+30	56	·137	5·3	6	1·55	+4·45	2·67	1·20	+ 1·47	5·42	3·93	+ 1·49	0·90	Murree.		
																					1·05			2·58			Poo.		
16		1	3	3	7	1			S 29° E	2·8		1·3	+56	54	·128	5·1	6	1·45	+4·55	3·59	0·74	+ 2·85	3·77	2·50	+ 1·27	1·55	Simla.		
5	19	3	1	2				1	N 11° E	7·6		4·2	+81	57	·144	3·4	9			5·55	0·66	+ 4·89	5·57	2·09	+ 3·48	2·12	Chakrata .	N.-W. PROVINCE.	25
1	3	5	4	12	4	1	1		S 65° E					65	·171	3·9	8	1·50	+6·50	5·18	1·06	+ 4·12	5·33	2·50	+ 2·83	1·53	Mussooree.		
15		9	2			3	2		N 45° E	1·7	1·9	1·3	+46	62	·179	3·8	2	1·00	+1·00	2·08	0.53	+ 1·55	2·21	2·34	− 0·13	1·17	Ranikhet.		
1		3	1	18	1	1	1	5	S 51° E	6·3	5·8			53	·135	4·0	4			2·12			2·88			1·00	Muktesar.		

Mean of 30 days.

Table

Abstract of Observations taken at 8 A.M. at 220 Stations

Number of District.	Meteorological Province or District.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 A.M., in inches. Mean actual pressure (reduced to 32°).	Variation from normal.	Mean pressure reduced to sea-level and to constant gravity 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 A.M.	Mean maximum.	Variation from normal.	Mean minimum.	Variation from normal.	Mean daily temperature.	Variation from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
13	Bengal	Yatung	10,480?										45·0		21·8		33·4		23·2	52·1	4 days	14·9	29th	37·2
		Darjeeling	7,409	23·087	+·053		23·192	12th	22·978	4th	·214	41·4	49·5	+0·6	36·3*	−0·5*	42·0*	+0·1	13·2	57·0	15th	32·0	29th	25·0
		Gantok	5,660	24·560			24·676	10th	24·446	20th	·230	46·2†	61·3†		26·8†		44·1†		34·5	69·2	15th	21·0	26th & 27th.	48·2
	Central India	Mount Abu	3,945	26·126	−·032		26·243	18th	25·985	31st	·258	58·6	67·8	−1·1	53·7	+1·2	60·8	+0·1	14·1	74·1	2nd & 23rd.	45·1	29th	29·0
		Pachmarhi	3,528	26·584	+·006		26·685	12th	26·444	31st	·241	61·5	73·7	+4·5	52·9	+7·9	63·3	+6·2	20·8	78·7	5th & 6th.	45·8	21st	32·9
	South India	Wellington	6,200	24·322	+·020		24·373	22nd	24·256	31st	·117	56·2	68·0	+2·4	48·1	−1·0	58·1	+0·5	19·5	74·2	1st	40·2	8th	34·0
		Kodai Kanal	7,688	22·884			22·929	18th	22·818	31st	·111	55·9	62·2		48·3		55·3		13·9	67·0	28th	42·2	31st	24·8
	XIII.—Extra India.																							
	Ceylon	Trincomalee	12	30·062	+·027	29·940	30·058	22nd	29·933	1st	·125	79·3	84·0	0	75·6	+1·4	79·8	+0·7	8·4	85·0	7 days	71·5	5th	13·5
		Colombo	40	29·948	+·015	29·915	30·060	22nd	29·886	31st	·114	78·2	88·7	+2·2	73·2	+0·3	81·0	+1·3	15·5	91·5	27th & 31st.	70·0	30th	21·5
	Persia	Meshed	3,104							21st & 25th.		38·1			33·3							23·0	21st & 25th	
		Teheran		26·063§			26·280	11th	25·950	5th & 21st.	·330	39·5	52·6		35·1†		43·8†		17·5	64·8	9th	29·0	27th	35·8
				25·559‖			25·540	11th	25·240	25th & 29th.	·300													
		Ispahan		§24·292†			24·500	11th	24·125	21st	·375	36·6†	54·9†		30·2†		42·6†		24·7	64·9	9th	21·7	22nd	43·2
		Bushire	14	30·135	+·008	30·108	30·240	18th	30·023	20th	·217	58·5	67·6	−2·1	55·4	−0·1	61·5	−1·1	12·2	79·6	14th	45·2	31st	34·3
		Jask‡		30·115	−·020		30·232	12th	29·991	21st & 30th.	·241	67·2	75·4	−2·6	62·4	−1·2	68·9	−1·9	13·0	80·3	5th	57·8	24th & 31st.	22·5
	Arabia	Muscat	20	30·107		30·075	30·209	12th	29·914	17th	·295	71·5	74·2		69·2		71·9		5·0	77·6	1st	66·1	19th	11·5
		Baghdad	220	30·002	−·009	30·214	30·109	26th	29·719	20th	·390	48·2	64·5	+0·2	44·8	+1·6	54·7		19·7	76·0	5th	37·2	26th	38·3
		Bussrah		30·181			30·278	18th	30·060	25th	·218		64·2		50·2		57·2		14·0	74·2	10th	39·5	31st	34·7
		Aden	94	29·960	−·041	29·987	30·035	10th	29·890	16th	·145	77·3	82·0	−0·6	75·3	+2·7	78·7	+1·1	6·7	85·3	23rd	70·9	5th & 10th.	14·4
		Perim	201	29·844		29·981	29·937	9th	29·811	5th	·126	79·0	85·3		76·3		80·8		9·0	87·8	3rd	74·8	11th	13·0
	Afghanistan	Kabul		§§								28·8	46·7		25·2		36·0		21·5	61·2	1st	6·8	27th	54·4
	Central Asia	Kashgar		25·747			26·050	7th	25·520	25th	·530	20·7	39·7		17·1		28·4		22·6	58·6	4th	10·7	31st	47·9
	Arabian Sea Islands.	Amini Devi	13	29·982		29·923	30·048	10th	29·905	2nd & 6th.	·143	84·0**	87·3**		74·1**		80·7**		13·2	90·0	17th	70·0	11th & 24th.	20·0
		Minicoy	7	29·981		29·913	30·050	25th	29·912	28th	·138	82·3	86·0							87·5	30th			
	Africa	Zanzibar	73	29·936 ‡‡	+·003	29·936	30·005	10th	29·881	31st	·124	80·7	84·2		78·0		81·1		6·2	87·7	1st	76·0	28th	11·7
		Do. Dunga		29·860			29·930	10th	29·791	20th	·139	78·4	88·8		70·9		79·9		17·9	96·2	6th	67·8	2nd	28·4

* Mean of 18 days. ‡ Mean of 29 days. § Aneroid uncorrected. ‡‡ Mean of 27 days. §§ Aneroid corrected.
‖ Mountain barometer uncorrected.

NOTE.—When a query is inserted against any reading or in the variation returns for any station, the

I—*concluded.*

in India, Burma, etc., in December 1900—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 velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hydrometry, 8 A.M. Mean humidity.	Mean vapour tension.	Mean cloud amount.	Rainfall. Number of rainy days.	Normal number of rainy days.	Variation.	Rainfall of month.	Normal rainfall of month.	Variation from normal.	Total rainfall from 1st October to 31st December 1900.	Normal rainfall for period, 1st October to 31st December.	Variation from normal of period, 1st October to 31st December.	Heaviest rainfall during month.	Station.	Meteorological Province or District.	Number of District.
																	1			0·58	0·06	+0·52	1·31	2·89	−1·58	0·50	Yatung	Bengal.	
14		2	7	6	1	1			S 67° E	2·5	2·4	1·9	+26	82	·206	3·1	1	0·62	+0·38	0·34	0·22	+0·12	0·68	6·25	−5·57	0·25	Darjeeling.		
30														81†	·256†	3·1	1			0·31	0·54	−0·23	1·78	8·86	−7·08	0·23	Gantok.		
10	3	9		1	2	4	1	1	N 30° E	4·9	5·1	3·6	+42	49	·243	2·5	0	0·18	−0·18	0·05	0·10	−0·05	0·08	1·08	−1·00	0·05	Mount Abu	Central India.	
21				1	3	6			S 25° W	4·4	4·5	2·6	+73	75	·412	3·7	1	0·91	+0·09	1·17	0·52	+0·65	1·17	3·86	−2·69	1·17	Pachmarhi.		
20	1	6	1	2	1				N 63° E	2·0		2·5	−20	77	·357	4·3	5	6·78	−1·78	2·13	4·16	−2·03	20·01	24·71	−4·70	0·80	Wellington	South India.	
	1	15	7	7	1				N 75° E	5·7				63	·270	4·8	10			5·77			22·49			1·48	Kodai Kanal		
																											XIII.—Extra India.		
13		13				3		2	N 34° E	1·1				86	·862	4·1	14			9·53	15·13	−5·60	38·26	41·32	−3·06	1·74	Trincomalee	Ceylon.	
	9	11	9	2					N 50° E	7·5		7·9	− 5	86	·834	4·2	8			5·40	6·70	−1·30	23·39	33·46	−10·07	1·53	Colombo.		
														70	·163	2·9	2			0·70	0·38	+0·32	1·71	1·68	+0·03	0·38	Meshed	Persia.	
1	8	19			1	1		1	N 31° E	1·4	1·8			62	·152	3·5	3			1·05	1·31	−0·26	3·99	2·52	+1·47	0·37	Teheran.		
										1·3	1·8			80†	·178†	3·1†	0			0·05	0·45	−0·40	1·11	1·91	−0·80	0·03	Isphahan.		
4	3	10	3	9				2	N 72° E	6·1	7·3	6·6	+11	78	·382	4·3	6			3·82	3·11	+0·71	6·79	5·91	+0·88	1·29	Bushire.		
5	8	10	5					1	N 35° E	9·4	10·9			78	·525	2·7	4			2·90	0·48	+2·42	3·89	0·96	+2·93	1·40	Jask.		
13					1	2	4	6	N 79° W	4·2	4·3			69	·535	5·5	4			2·49	0·44	+2·05	3·41	1·42	+1·99	1·44	Muscat	Arabia.	
12	5	1	1	3	1	2	2	4	N 27° W	3·2	4·2			83	·282	3·5	4			1·40	1·95	−0·55	3·14	3·02	+0·12	0·72	Baghdad.		
																	4			0·76			0·94			0·25	Bussrah.		
		23	6	2					N 58° E	16·2	15·9	12·4	+28	76	·709	6·3	0			0·04	0·49	−0·45	0·04	0·72	−0·68	0·04	Aden.		
		6	19	6					E	22·5	20·9			80	·797	4·9	0			0·11	0·10	+0·01	0·14	0·25	−0·11	0·08	Perim.		
	9	10		1	2		1	8	N 3° E					85	·139	5·2¶	0			0·05	0·43	−0·38	3·05	1·37	+1·68	0·05	Kabul	Afghanistan.	
	1	1	4	7	7	5	2		S 16° E	0·7	0·6					3·3	0			0	0·27	−0·27	0	0·38	−0·38	0	Kashgar	Central Asia.	
	19	4	5	2				1	N 23° E					72**	·845**	3·0	3			1·34			5·22			0·60	Amini Devi.	Arabian Sea Islands.	
	4	15	6	3	2	1			N 61° E	4·9	5·2			78	·863	2·9	6			4·94			20·49			2·43	Minicoy		
	4	4	3	6	3	5	5	1	S 18° E	4·5	4·3			84	·871	7·5	15			11·70	5·20	+6·50	24·17	16·79	+7·38	3·29	Zanzibar	Africa.	
9	3	9			3	2	1	3	N 16° E	3·8	3·6			90	·872	5·5††	21			18·40			28·15			3·25	Do. Dunga.		

data for that station are not utilized in calculating the provincial variations.

† Mean of 30 days. ¶ Mean of 21 days. ** Mean of 23 days. †† Mean of 28 days.

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 daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
Burma Coast and Bay Islands.	Port Blair		29·962	29·862	·100	29·908†	+·034	29·900	87·3	77·3‡	10·0	89·1	73·0	16·1	83·5	85·6	81·5‡	+1·7	73·2	76·6	77·5	75·8
	Rangoon		30·023	·890	·133	·955	+·012	·932	88·2	67·4	20·8	92·9	62·7	30·2	80·4	85·5	76·1	+0·7	65·7	71·8	71·7	69·7
	Diamond Island		·018	·904	·114	·956	+·011	·932	85·1	75·5	9·6	87·4	73·7	13·7	82·0	83·0	79·4	+2·6	70·3	74·0	73·1	72·5
	Cocos Island‡	111	29·953	·863	·090	·903	+·022	·947	84·2	76·6	7·6	85·2	74·3	10·9	81·8	80·9	79·2	+2·4	70·3	73·0	72·6	72·0
	Akyab		30·054	·939	·115	·995	+·002	·957	83·9	61·6	22·3	87·1	55·6	31·5	73·5	79·6	72·1	−0·1	?	67·6	70·9	?
Bengal and Orissa.	Chittagong		·017	·916	·101	·963	+·024	·999	82·2	58·0	24·2	86·7	51·2	35·5	74·5	78·5	69·6	+2·2	57·5	67·0	67·4	64·0
	Calcutta (Alipore)		·109	·981	·128	30·035	+·011	30·002	80·1	58·1	22·0	83·3	54·8	28·5	73·2	78·5	68·3	+3·0	57·0	64·1	65·6	62·2
	Saugor Island		·092	·971	·121	·024	+·005	29·994	79·7	60·6	19·1	83·1	56·1	27·0	73·8	76·8	69·0	+2·5	58·8	67·1	66·5	64·1
	False Point		·097	·985	·112	·039	+·001	30·002	80·9	60·2	20·7	84·4	55·8	28·6	76·9	78·4	69·5	+2·9	59·9	69·2	69·3	66·1
Gangetic Plain and Chota Nagpur.	Hazaribagh		28·071	27·964	·107	28·007	+·008	·013	72·9§	53·5§	19·4	77·4	47·2	30·2	66·1§	70·2§	62·2§	+1·7	51·2§	57·5§	58·9§	55·9
	Darbhanga		29·968	29·840	·128	29·898	+·006	·024	74·9	53·6	21·3	80·2	45·8	34·4	67·5	72·5	63·6	0	52·6	61·7	62·7	59·0
	Allahabad		·826	·710	·116	·756	+·003	·031	76·3	52·5	23·8	84·7	45·0	37·7	66·9	73·9	62·7	+2·0	51·1	59·4	61·8	57·4
Upper Sub-Himalayas.	Dehra Dun		27·843	27·764	·079	27·793	+·017	·072	67·0	47·0	20·0	75·1	40·9	34·2	58·0	62·4	55·0	−1·1	44·5	51·7	53·8	50·0
	Roorkee		29·218	29·122	·096	29·157	+·018	·054	69·9	46·9	23·0	78·8	36·1	42·7	60·1	66·7	56·7	+0·2	44·6	54·5	57·1	52·1
	Meerut		·371	·276	·095	·315	+·010	·056	70·7	48·5	22·2	80·0	42·2	37·8	59·7	66·8	58·0	+0·8	46·9	54·5	58·3	53·2
	Lahore		·421	·344	·077	·370	+·015	·083	65·6	45·5	20·1	76·8	39·4	36·4	56·7	64·6	54·0	+0·8	43·7	52·4	56·5	50·9
	Lahore (new shed).								67·5	44·7	22·8	77·4	38·8	38·6	57·9	65·1	54·2		43·3	53·7	57·7	51·6
	Ludhiana		·312	·220	·090	·254	+·027	·080	66·9	48·0	18·9	76·1	41·3	34·8	58·3	64·7	55·7	+1·1	47·1	53·1	56·2	52·1
Indus Valley and N.-W. Rajputana.	Peshawar		·035	28·956	·079	28·984	+·016	·140	64·4	42·3	22·1	73·2	33·5	39·7	55·8	60·7	51·1	+0·2	39·4	49·0	51·2	46·5
	Jacobabad		29·991	29·877	·114	29·922	+·027	·076	72·3	47·2	25·1	81·9	37·5	44·4	62·5	70·0	57·8	−0·1	44·6	54·4	59·0	52·3
	Kurrachee		30·130	30·017	·113	30·068	+·016	·050	79·9	57·0	22·9	88·8	51·9	36·9	72·0	76·6	67·2	+0·2	50·0	58·0	61·2	56·4
E. Rajputana, C. India and Gujarat.	Jaipur		28·671	28·576	·095	28·613	+·002	·049	73·7	52·2	21·5	82·2	39·1	43·1	66·5	70·8	60·9	+0·9	47·8	56·4	58·8	54·3
	Udaipur		·151	·036	·115	·084		·015	76·6	52·4	24·2	84·1	44·9	39·2	68·9	74·7	64·1		48·8	57·1	60·2	55·4
	Deesa		29·615	29·503	·112	29·551	−·005	29·980	84·3	55·9	28·4	91·6	49·6	42·0	75·1	82·0	69·3	+1·1	49·0	59·2	60·9	56·4
	Jamnagar		30·037	·923	·114	·980		·987	80·7	56·7	24·0	91·5	47·9	43·6	72·8	79·0	68·3		49·7	59·1‡	60·7‡	56·6
Deccan.	Belgaum		27·483	27·371‡	·112	27·424	+·002	·868‡	84·5	61·2	23·3	87·3	57·1	30·2	76·8	83·4	72·6	+3·2	57·5	63·0	62·6	61·0
	Sholapur		28·457	28·322	·135	28·388	−·007	·919	89·1	63·0	26·1	91·3	57·6	34·2	79·8	87·6	75·3	+4·6	55·3	62·9	64·0	60·7
	Poona		·199	·081	·118	·141	−·005	·914	88·5	58·1	30·4	92·1	51·0	41·1	79·1	86·7	73·2	+4·4	54·3	62·1	64·3	60·2
	Akola		29·147	29·004	·143	29·068	−·010	·957	88·6	59·4	29·2	91·8	51·5	40·3	78·2	86·8	72·9	+6·6	54·8	64·4	66·9	62·0
	Buldana	2,132	27·922	27·805	·117	27·856	−·008	·930	84·1	61·7	22·4	87·5	57·3	30·2	76·9	82·3	71·8	+4·4	54·7	61·4	62·4	59·5
	Khandwa		29·019	28·884	·135	28·945	−·015	·951	87·9	59·6	28·3	92·2	54·1	38·1	77·0	86·5	72·8	+7·4	54·7	63·8	66·9	61·8
	Nagpur		·058	·921	·137	·983	−·001	·973	85·9	61·1	24·8	90·4	56·1	34·3	75·6	83·6	72·3	+5·5	57·4	65·3	67·5	63·4
	Do. (Sanitary Commr.'s Office)		·074	·939	·135	·999		·981	86·5	59·6	26·9	90·2	55·1	35·1	76·6	84·5	72·5		56·4	64·9	66·4	62·6
	Hyderabad (Deccan).		28·373	·255	·118	·310	−·013	·950	85·7	61·1	24·6	88·9	55·5	33·4	77·9	82·3	72·5	+3·6	58·7	65·6	65·3	63·2
West Coast.	Bombay		30·068	29·900	·108	29·947	−·003	·924	85·9	72·0	13·9	90·1	66·2	23·9	78·7	82·7	77·6	+1·6	65·8	70·5	73·3	69·9
	Karwar		29·992	·871	·121	·924	+·019	·900	89·7	69·2	20·5	94·1	66·5	27·6	80·9	87·6	78·3	+2·5	65·8‡	71·3	74·5	70·5

† Mean of 29 days.

‡ Mean of 30 days.

II.

at 65 Stations in India, Burma, etc., for December 1900.

Vapour Tension. From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Humidity. From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Cloud. Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind Steadiness. Average percentage.	Normal percentage.	Wind Velocity. Mean velocity in miles per diem.	Normal.	Rainfall. Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Meteorological Province
																									%	%						
·774‡	·830	·839	·814	−·013	82‡	72	68	74	− 5	4·7	5·5	5·1	+0·4		10	33	7	5	2		2	3	N 45° E	N 5° E	68	66	145	181			Port Blair	Burma Coast and Bay Islands.
·615	·669	·594	·626	−·025	91	64	49	68	− 4	2·4	4·3	3·4	+0·5		8	25	15	6	4	1		1	N 64° E	N 41° E	65	63	90†	117			Rangoon	
·665	·734	·683	·694	+·011	76	67	60	68	− 5	1·8	2·6	2·2	−1·2	9	3	39	15	5			4	7	N 53° E	N 58° E	47	48	149*	212			Diamond Island	
·662	·695	·693	·683	+·003	72	64	65	67	− 4	3·8	4·0	3·9	+0·4		11	39	8					2	N 40° E	N 34° E	89	85	96	?	0·29	0·17	Cocos Island	
?	·599	·645	?	?	?	72	63	?	?	2·8	3·3	3·1	+0·8			11	20			1	15	15	N 5° E	N 8° W	29	41	65	57			Akyab	
·472	·563	·524	·520	−·002	97	66	54	72	− 4	1·7	2·5	2·1	−0·1		8	18	4	1		1	5	25	N 9° W	N 24° W	61	53	73*	66			Chittagong	
·453	·480	·460	·464	+·032	93	59	47	66	− 4	1·4	1·5	1·5	−0·2		27	5	1	1		2	6	20	N 21° W	N 23° W	74	62	71	61			Calcutta (Alipore).	Bengal and Orissa.
·478	·577	·515	·523	+·027	90	69	56	72	− 1	1·7	1·7	1·7	−0·6		33	7			3	2	5	12	N 13° W	N 3° E	69	59	178	169			Saugor Island.	
·516	·615	·597	·576	+·080	98	66	61	75	+ 1	1·9	1·5	1·7	−0·8		17	16	12	5	4	2	2	4	N 43° E	N 32° E	48	58	113*	151			False Point	
·351§	·368§	·369§	·359	+·085	86§	58§	50	65	+13	3·4	3·1	3·3	+1·2	2	17		2	4	4	2	8	23	N 39° W	N 44° W	53	56	124*	119			Hazaribagh	Gangetic Plain and Chota Nagpur.
·387	·477	·440	·435	+·013	93	71	56	73	0	1·3	0·6	1·0	+0·1	5	4	7	5	1	2	7	21	10	N 69° W	S 81° W	39	53	53	49			Darbhanga	
·362	·409	·396	·389	+·049	90	63	49	67	+ 1	3·3‡	3·4	3·4	+1·9	3	8	8	14	4	2	1	11	11	N 11° E	N 47° W	26	25	83*	60			Allahabad	
·266	·308	·312	·295	+·019	81	65	57	68	+ 5	4·1	5·4	4·8	+2·2	15	19	14	11						N 40° E	S 75° W	60	17	21	31			Dehra Dun	Upper Sub-Himalayas.
·270	·254	·342	·322	+·033	83	69	54	69	+ 5	4·4	4·4	4·4	+2·2	40	5	3		2	1	1	3	7	N 30° W	N 67° W	16	15	38	32			Roorkee	
·307	·361	·382	·350	+·066	89	71	59	73	+11	4·8	4·6	4·7	+2·9	39	2	4		1			12	4	N 59° W	N 61° W	21	44	17*	37			Meerut	
·264	·340	·353	·319	+·045	86	75	61	74	+16	4·7	5·1	4·9	+2·5	27	8		1		6		10	10	N 61° W	N 35° W	31	20	26	33			Lahore	
·267	·359	·382	·336		89	76	64	76																							Lahore (new shed).	
·314	·339	·342	·332	+·055	94	70	58	74	+12	4·2	5·1	4·7	+1·5	10	4	11	4	8	4		12	9	N 8° W	N 43° W	14	27	43*	27			Ludhiana	
·211	·271	·265	·249	+·022	76	62	52	63	+ 3	5·5	5·7	5·6	+2·1	50	3	1	1	1	2		4		N 61° W	S 4° E	3	8	19*	61			Peshawar	Indus Valley and N.-W. Rajputana.
·269	·318	·327	·305	+·068	80	60	48	63	+16	4·8	4·5	4·7	+2·5	48	3	3	5		1			2	N 46° E	N 15° W	13	18	17*	39			Jacobabad	
·274	·300	·320	·305	−·063	59	40	38	45	− 8	2·7	2·9	2·8	+1·0			23	22	6	3	5	3		N 81° E	N 41° E	59	23	166*	217			Kurrachee	
·283	·334	·353	·328	+·052	73	51	47	57	+ 8	4·1	4·4	4·3	+2·2		7	24	16	2	3	1	2	7	N 48° E	N 19° W	58	24	71	71			Jaipur	E. Rajputana, C. India and Gujarat.
·304	·328	·350	·327		77	46	40	54		1·6	2·3	2·0		20	2	6	14	11	2	2	2	3	S 82° E		34		30				Udaipur	
·261	·296	·259	·272	+·018	58	34	24	39	+ 3	1·7	2·3	2·0	+0·3		12	20	15	3	1	3	1	7	N 42° E	N 44° E	56	50	224	194			Deesa	
·271	·322‡	·292‡	·296		57	40‡	30‡	42		0·7	0·6	0·7			27	21	5	1		1	1	6	N 18° E		76		214*				Jamnagar	
·430	·406	·313	·383	+·011	80	44	27	50	0	2·2	2·5	2·4	−0·2		1	11	26	17	2	2	2	1	S 82° E	N 88° E	68	67	251	299			Belgaum	Deccan.
·344	·365	·303	·338	−·034	59	36	23	39	− 9	1·2	2·1	1·7	−1·2	2		4	8	40	4	3		1	S 50° E	S 83° E	77	66	165*	182			Sholapur	
·380	·346	·326	·351	+·027	78	35	25	46	+ 3	1·6	2·4	2·0	−0·5	2	1	10	9	19	4	11	3	3	S 48° E	N 85° E	36	51	170*	133			Poona	
·373	·425	·396	·398	+·067	73	44	31	49	− 2	2·6	3·6	3·1	+1·4	16	3	13	14	4	6	2	1	3	N 77° E	N 61° E	36	57	66*	80			Akola	
·343	·355	·320	·339	+·015	62	38	29	43	− 4	1·2	3·0	2·1	−0·3		5	9	5	13	18	5	2	5	S 63° E	N 82° E	21	43	162*	132	Nil	Nil	Buldana	
·371	·423	·411	·402	+·083	72	46	33	50	0	1·8	3·3	2·6	+0·8	6	2	6	16	14	2	8	2	6	S 68° E	N 62° E	32	42	88	62			Khandwa	
·433	·498	·476	·469	+·120	79	56	41	59	+ 7	3·4	4·4	3·9	+1·6	29	2	5	9	3	6	6	1	1	S 55° E	N 57° E	18	54	70	83			Nagpur	
·421	·475	·426	·441		82	51	36	56		2·3	3·4	2·9		4	1	32	4	13	1	3		4	N 66° E		55		30*				Do. (Sanitary Commr.'s Office)	
·465	·479	·415	·453	+·015	86	50	37	58	− 4	1·1	2·3	1·7	−0·7	23		1	15	20	3				S 61° E	S 72° E	55	65	76*	81			Hyderabad (Deccan).	
·558	·641	·699	·633	+·018	70	65	62	66	− 3	2·2	2·4	2·3	+0·5		3	10	16	4			11	18	N 6° E	N 16° E	32	58	194	236			Bombay	West Coast.
·592‡	·639	·679	·637	+·034	83‡	61	52	65	− 2	0·5	1·1	0·8	−0·6	8	2	9	10				19	14	N 35° W	N 6° W	36	54	73	66			Karwar	

§ Mean of 22 days.

* Corrected.

Table

Abstract of Observations recorded at 10 A.M. and 4 P.M. at 65 Station

Meteorological Province	Station.	Elevation of barometer above sea-level in feet.	Pressure. Mean of 10 hours.	Mean of 16 hours.	Mean daily range.	Mean daily pressure.	Variation from normal.	Mean reduced to S. L. 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 daily.	Variation from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.
South India.	Periyakulam		29·083	28·959	·129	28·986			87·1	66·9	20·2	91·4	60·6	30·8	77·3	83·6	76·2		62·5	71·4	70·9	68·4
	Salem		·123	·989	·134	29·055	+·015	29·933	88·3	67·2	21·6	92·5	62·0	30·5	81·1	84·7	76·8	+2·6	65·3	71·1	72·0	69·5
	Chitaldroog		27·624	27·512	·121	27·573	—·009	·890	85·9	63·7	22·2	88·7	59·9	28·8	77·6	83·4	74·2	+3·9	59·6	66·5	67·0	64·4
	Bangalore		27·051	26·941	·110	26·995	+·013	·918	80·4	60·3	20·1	84·0	56·0	28·0	72·7	77·5	69·7	+2·3	59·2	63·6	64·2	62·3
	Hassan		26·981	26·870	·111	26·925	+·006	·900	81·6	58·2	23·4	84·0	52·9	31·1	75·0	79·3	69·3	+2·1	57·1	64·7	64·0	61·9
	Mysore		27·531	27·409	·122	27·470	+·006	·898	84·1	62·3	21·8	87·0	58·1	28·9	76·2	82·1	72·7	+2·3	60·8	66·1	66·5	64·5
	Madras		30·047	29·942	·112	29·993	+·019	·946	84·9	70·8	14·1	86·9	65·0	21·9	81·9	81·7	77·2	+1·2		74·7	74·0	73·4
	Bellary		28·580	28·443	·137	28·511	+·004	929	89·5	64·3	25·2	92·8	61·1	31·7	79·6	85·9	75·6	+3·3	60·4	64·9	66·2	63·8
	Waltair		29·873	29·762	·111	29·818		·988	82·6	70·3	12·3	87·7	66·3	21·4	80·2	79·6	75·7		63·2	68·4	69·3	67·0
Hill Station, Baluchistan.	Quetta		24·745	24·675	·070	24·698	—·016		52·0	32·6	19·4	61·7	25·6	36·1	44·5	47·6	41·2	—1·0	31·8	38·7	40·8	37·1
Hill Stations, Northern India.	Leh		19·735	19·655†	·080	19·691	—·014		33·0	14·4	18·6	42·6	8·0	34·6	24·8	30·5	23·3	—0·3	11·0	17·8	22·7	17·2
	Srinagar		25·051	24·971	·080	24·999	—·032		46·3	30·7	15·6	58·4	24·1	34·3	36·1	44·5	38·1	+0·9	29·2	35·2	42·8	35·7
	Kailang	10,087																				
	Simla (Ridge)		23·203	23·144	·059	23·162	+·008		47·2	37·2	10·0	54·5	30·2	24·3	43·8	43·6	41·0	—4·1	32·7	36·6	38·2	35·8
	Chakrata		·390	·328	·062	·347	+·012		51·5	37·9	13·6	62·8	31·1	31·7	44·5	45·2	42·8	—2·7	33·6	37·2	38·9	36·6
	Ranikhet		24·234	24·161	·073	24·183	+·034		54·6	42·2	12·4	62·2	33·3	28·9	49·3	49·9	46·9	—2·4	38·2	42·6	42·8	41·2
	Muktesar		22·948	22·886	·062	22·917			51·5	37·6	13·9	61·0	30·9	30·1	47·3	46·5	45·3		32·7	39·0	39·7	37·1
	Katmandu	4,388	25·742	25·633	·109	25·686	P		66·2	38·6	27·6	72·1	30·8	41·3	52·4	59·7	50·8	—2·7	37·2	47·6	50·3	45·0
	Darjeeling		23·095	23·033	·062	23·062	+·044		49·3	P	P	57·0	P	P	44·3	47·3	P	P	35·4	40·9	43·7	40·0
Hill Stations, Central India.	Mount Abu		26·160	26·092	·068	26·118	—·032		67·4	53·8	13·6	74·1	45·1	29·0	64·0	64·4	59·8	+0·2	46·2	51·4	52·0	49·9
	Pachmarhi		·606	·514	·092	·553	+·003		73·5	52·8	20·7	78·9	45·8	33·1	68·8	70·6	62·5	+5·2	51·0	59·0	59·9	56·6
	Chikalda	3,642	·484	·386	·098	·428	—·002		76·1	59·8	16·3	79·8	53·7	26·1	70·0	73·2	67·4	+4·2	54·3	59·0	60·5	57·9
Hill Stations, South India.	Wellington		24·330	24·261	·069	24·296	+·029		67·8	48·2	19·6	72·9	40·2	32·7	64·5	63·1	56·8	+0·9	46·5	57·1	58·0	53·9
	Kodai Kanal		22·897	22·827	·070	22·857			62·0	48·3	13·7	67·0	42·2	24·8	59·0	56·4	53·8		42·8	51·3	52·9	49·0
Extra India.	Aden		29·969	29·868	·101	29·922	—·029	·948	82·0	75·2	6·8	85·3	70·7	14·6	79·4	81·2	78·6	+1·8	70·3	72·4	71·9	71·5
	Perim		·851	·771	·080	·814	+·015	·949	85·3	76·3	9·0	87·7	74·8	12·9	82·0	82·1	80·0	+1·5	72·9	75·4	75·4	74·6
	Minicoy		·991	·906	·085	·944		·876	86·1			87·7			84·3	83·6				77·7	77·2	
	Zanzibar		·941†	·830	·111	·886	+·009	·885†	84·2	78·0	6·2	87·6	76·0	11·6	81·6†	83·6	81·0	—1·3	74·4	77·3†	77·4	76·4
	Port Victoria (Seychelles)	15	·972	·888	·084	·930		·869	83·0	74·5	8·5	84·7	72·6	12·1	81·6	82·4	78·6		73·1	76·5	76·8	75·5
	Mauritius (Pamplemousses)	181				·887	+0·56	30·015				93·5	63·5	30·0			78·6	+0·7				

† Mean of 30 days.

‡ Wind variable 3.

II—*concluded.*

in India, Burma, etc., for December 1900—concluded.

Vapour Tension.					Humidity.					Cloud.				Wind Direction. Number of Winds from											Wind Steadiness.		Wind Velocity.		Rainfall.		Station.	Meteorological Province.
From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	From minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation from normal.	Mean 10 hours.	Mean 16 hours.	Mean daily.	Variation 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.		
																									%	%						
·576	·648	·620	·616		88	66	58	71		3·7	4·9	4·3		21	1	3	13	17		5		2	S 63° E		40		59·				Periykulam	
·600	·636	·624	·620	+·031	90	60	52	67	− 4	4·2	5·0	4·6	+0·3	8	1	25	26	2					N 69° E	N 77° E	77	50	104*	92			Salem	South India.
·464	·514	·461	·480	+·069	78	54	40	57	+ 1	3·2	2·1	2·7	−0·4			11	36	15					S 87° E	N 83° E	89	82	207*	199			Chitaldroog	
·499	·488	·450	·479	+·024	94	61	48	68	0	3·9	2·8	3·4	−0·5	1		13	40	7	1				N 87° E	N 70° E	87	84	192*	116			Bangalore	
·457	·494	·420	·457	+·005	94	57	42	64	− 1	4·5	3·9	4·2	+0·2			19	31	11	1				N 85° E	N 76° E	84	82	71*	95			Hassan	
·521	·520	·459	·500	+·046	92	57	42	64	+ 2	6·1	5·3	5·7	+1·9			16	32	14					N 88° E	N 80° E	65	84	252*	261			Mysore	
	·765	·738	·774	+·070		70	68	83	+ 4	5·5	4·8	5·2	−0·2			3	25	27	7				S 63° E	N 25° E	84	79	165	178			Madras	
·480	·434	·401	·438	+·029	79	43	32	51	− 7	4·3	4·4	4·4	+0·7	2		1	34	23	2				S 71° E	S 86° E	87	69	122*	76			Bellary	
·489	·540	·584	·538		66	52	53	59		2·6	2·4	2·5				8	35	14	4	1			S 80° E		82		117				Waltair	
·173	·177	·186	·179	+·028	93	62	59	71	+14	5·5	5·2	5·4	+2·5	10				2	6	5	7	2	S 48° W	N 61° W	23	29	41*	59			Quetta	Hill Station, Baluchistan.
·046	·046	·064	·052	−·028	54	35	40	43	−20	6·1	7·2	6·7	+1·1			4	3	4	19	24	7	1	S 24° W	S 14° W	63	38	48	28			Leh	Hill Stations, Northern India.
·145	·199	·265	·203	+·028	83	91	87	87	+ 7	7·3	7·3	7·3	+2·0	22	5	7	1	4	3	2	6	12	N 33° W	S 84° E	21	6	62*	66			Srinagar	
																															Kailang	
·142	·145	·177	·155	+·018	65	53	64	61	+16	4·9	6·3	5·6	+1·7	18		3	6	4	22	5			S 74° E	S 11° W	49	14	67¶	98			Simla (Ridge)‡	
·150	·150	·175	·158	+·007	68	53	61	61	+10	3·5	4·0	3·8	+0·7	5	15	6	4	9	19	1		3	S 69° E	S 64° W	21	15	181	106			Chakrata	
·192	·206	·204	·201	0	73	61	60	65	+ 7	4·1	5·1	4·6	+2·0	22	2	14	3	4		11	6		N 33° E	S 51° W	3	23	46*	37			Ranikhet	
·138	·153	·177	·156		62	50	58	57		3·9	4·9	4·4		3	2	3	4	21	5	5	4	15	S 18° E		14		145*				Mukteswar	
·211	·280	·262	·251	−·016	88	71	52	70	− 3	2·6	3·5	3·1	+0·3		1	1	4	5	2	2	41	6	S 88° W	N 67° W	61	47	23	22	0·62	0·46	Katmandu	
?	·222	·251	?	?	?	76	77	?	?	4·7	5·1	4·9	+0·6	1		4	3	29	8	9	6	2	S 24° E	N 55° W	53	3	58*	72			Darjeeling	
·231	·241	·255	·242	+·027	55	40	42	46	+ 4	2·7	2·6	2·7	+1·0	2	3	15	2	8	4	15	6	7	S 47° W	N 13° E	5	13	123*	93			Mount Abu	Hill Stations, Central India.
·359	·389	·394	·381	+·106	89	55	53	66	+11	3·5	4·4	4·0	+1·9	12	5	4	2	4	9	20	3	3	S 36° W	N 31° E	32	21	114*	64			Pachmarhi	
·362	·374	·380	·372	+·069	70	51	46	56	+ 5	2·2	3·4	2·8	+0·4	36	2			10	5	9			S 3° E	S 74° W	27	8	135*	117	0·04	0·04	Chikalda	
·308	·395	·432	·378	+·026	58	66	75	76	− 1	4·0	5·7	4·9	−0·5	6	4	4	2	29	15	1			S 40° E	S 41° E	62	61	47	55			Wellington‖	Hill Stations, South India.
·230	·306	·369	·302		66	64	80	70		5·4	6·2	5·8			1	21	12	25	1			2	S 88° E		69		137				Kodai Kanal	
·678	·706	·662	·682	+·048	77	70	62	70	+ 1	6·0	2·8	4·4	+1·0			28	20	13		1			N 78° E	S 87° E	79	71	382*	313			Aden	Extra India.
·767	·797	·799	·788	+·157	85	72	72	76	+12	3·1	1·3	2·2	+0·6				25	31	2				S 63° E	S 60° E	91	83	504*	458			Perim§	
	·860	·857				73	73			3·1	3·0	3·1			10	30	11	5	5	1			N 58° E		66		122*				Minicoy	
·808	·882†	·856	·849	−·006	84	82†	75	80	+ 2	7·9†	6·8	7·4	+3·5	1	7	8	6	7	13	8	8	3	S 6° E	N 35° E	14	62	97*	152			Zanzibar	
·804	848	·850	·834		94	78	77	83	− 2	6·0	6·2	6·1		13	3	3	5	5	6	1	7	19	N 51° W		21		118		20·02	4·90	Port Victoria (Seychelles).	
			·657					72																			245	262	0·68	0·12	Mauritius (Pamplemousses).	

§ Wind variable 4. ‖ Wind variable 1. ¶ Mean of 27 days. * Corrected.

Explanation.

The lines of the above Chart represent isobars or lines of equal barometric pressure, and the numbers attached indicate the barometric ssure 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 re observations, and by comparison with the ordinary or normal distribution of pressure as given in the Charts of the Bay of Bengal pared by Mr. Dallas, 1st Assistant Meteorological Reporter to the Government of India, and published by the Meteorological Depart-nt. 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 n 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 nbert'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 indicated by broken arrows to distinguish them from the wind arrows for the plain stations. The mean velocity of the winds during 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 variation of the mean 8 a.m. pressure of the month from the normal by means of lines drawn for equal amounts f variation (of two hundredths of an inch or ·020″). The numbers are given in thousandths of an inch, 20 representing ·020″ or two undredths of an inch, &c. Continuous lines indicate that the pressure was in excess by amounts indicated by the numbers attached to he lines, and broken or dotted lines that it was in defect by amounts indicated by the numbers attached to the lines. Two parallel lines ear to each other, one continuous and the other broken or dotted, represent the line of no variation, the dotted line facing the area of eficient pressure or negative variations.

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

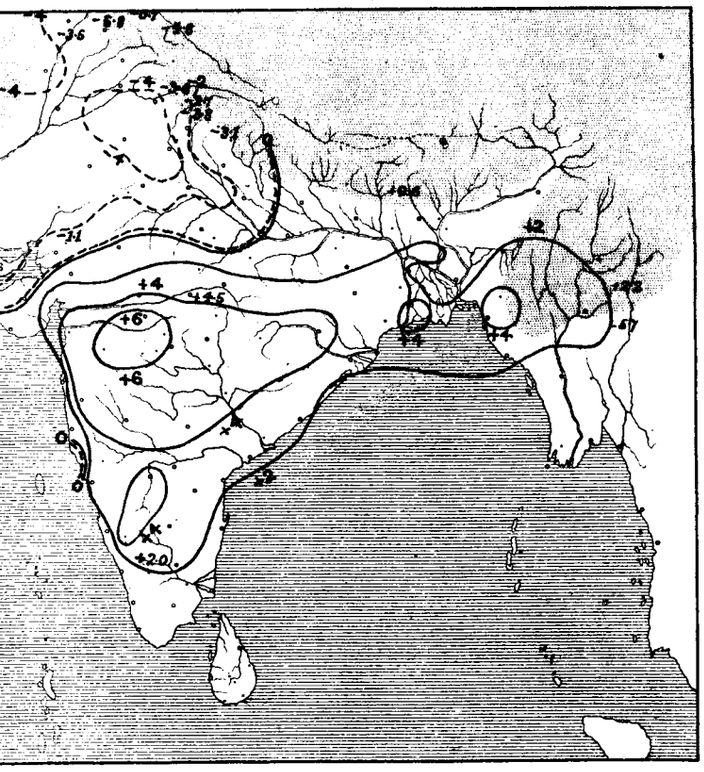
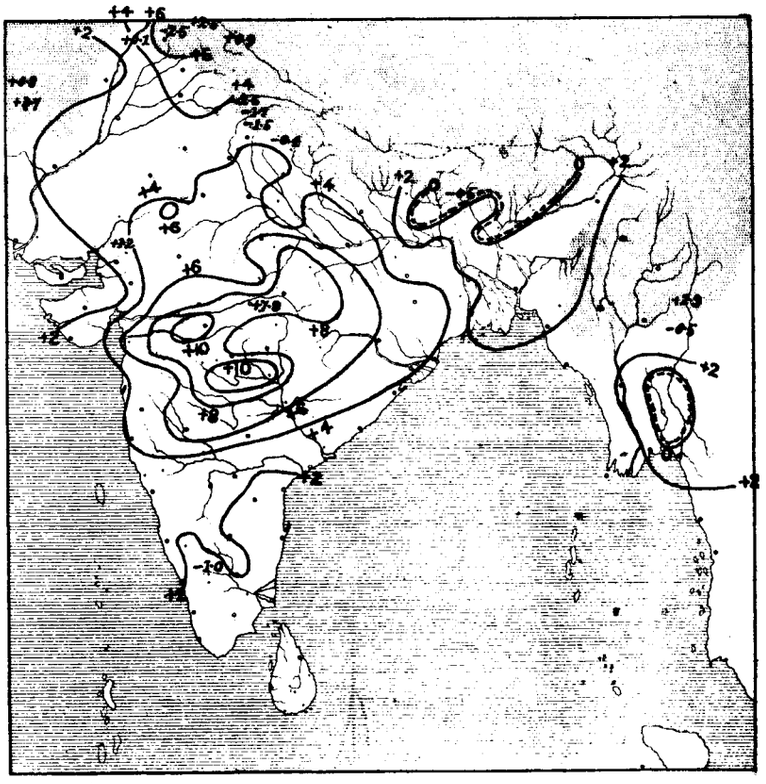


CHART SHEWING THE VARIATION OF THE MEAN MINIMUM TEMPERATURE OF THE MONTH FROM THE NORMAL.



Explanation.

ntinuous lines indicate that the mean maximum of month was in cess by amounts indicated by the attached numbers. Broken or dotted es that it was in defect by the amounts indicated by the attached mbers. Double lines are the lines of no variation, the broken line facing e 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 the 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.

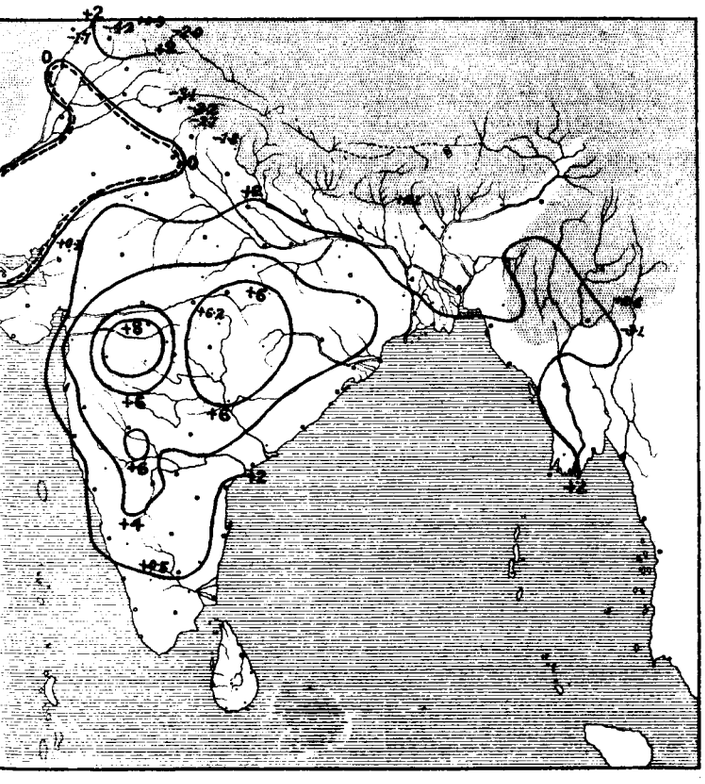
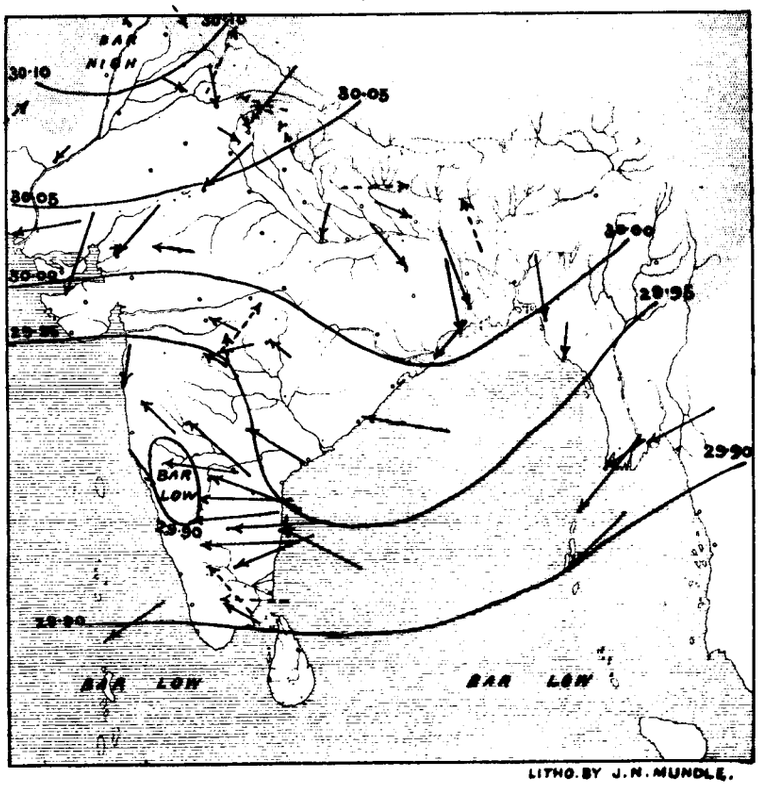


CHART SHEWING THE MEAN DISTRIBUTION OF PRESSURE AND THE RESULTANT WIND DIRECTIONS IN THE MONTH OF DECEMBER 1900.



LITHO. BY J. N. MUNDLE.

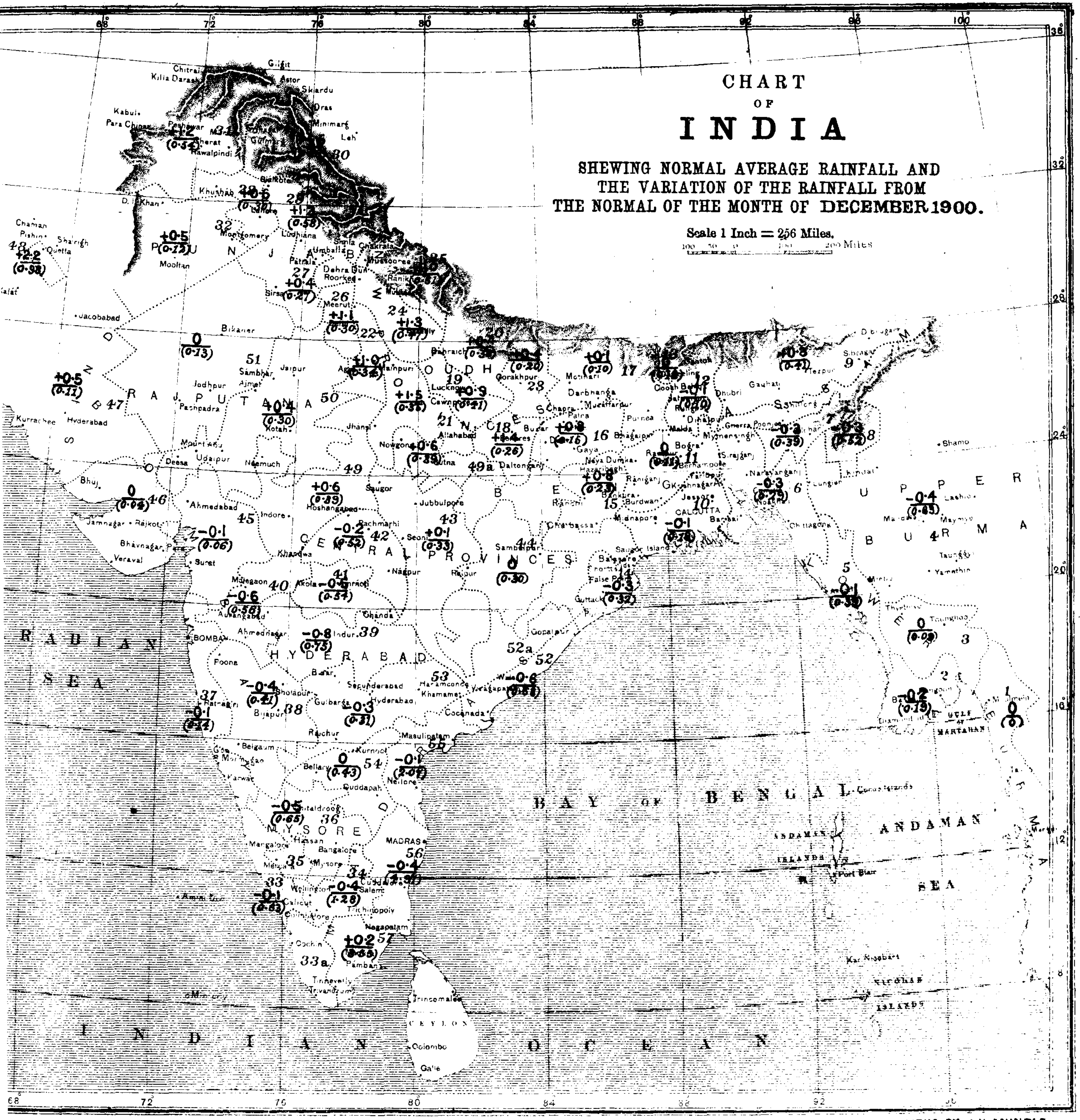
Explanation.

ntinuous lines indicate that the mean daily temperature of month s in excess by amounts indicated by the attached numbers. Broken dotted lines that it was in defect by the amounts indicated by the ached numbers. Double lines are the lines of no variation, the broken e facing the area of deficient temperature.

The Chart is prepared in the same manner as the Monthly Charts which have hitherto appeared in the Annual Report, 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.

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 (182 in number), except those at the Hill Stations over 3,500 feet in Elevation. The double line or line of no rainfall separates areas in which the rainfall exceeded a tenth of an inch from those it was actually or practically *nil* (*i.e.* less than a tenth of an inch). The dotted line faces the area of no rainfall.



No. 218, Wr., I.—July 00.—5,000.

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 urma with the exception of Upper Burma, for which rainfall data have not been obtained for a sufficient number of years to furnish eliable and useful means. The country is divided into 57 areas, over each of which the meteorological conditions are fairly uniform, nd the staple crops similar in character; and the means (both actual and normal for the month) have been calculated, and the numbers iven in the centre of each division (usually with a + or − sign attached) give the difference between the actual and normal mean ainfall of the district of the month. A plus sign indicates that the rainfall was in excess, and a negative sign that it was in deficit by he amounts indicated by the numbers to which the signs are attached. The normal average rainfall is also given below in smaller gures enclosed within brackets so that the percentage variation can be at once estimated. The name of the district can be at once ascertained y referring in the following list to the number given near the right hand boundary of each district in small slanting red figures.

. Tenasserim	17. North Bihar	33. Malabar	48. Baluchistan Hills
. Lower Burma Deltaic	18. North Western Provinces, East	33a Travancore	49. Central India, East
. Central do.	19. South Oudh	34. Madras, South Central	49a Do. do.
. Upper do.	20. North do.	35. Coorg	50. Rajputana East, Central India West
. Arakan	21. North Western Provinces, Central	36. Mysore	51. West Rajputana
. East Bengal	22. Do. do., West	37. Konkan	52. Madras, East Coast, North
. Assam, Surma	23. Do. do., East Submontane	38. Bombay Deccan	52a. Do. do. do. (a)
. Do., Hills	24. Do. do., West do.	39. Hyderabad, North	53. Hyderabad, South
. Do., Brahmaputra	25. Do. do., Hills	40. Khandesh	54. Madras, Central
. Deltaic Bengal	26. South East Punjab	41. Berar	55. Madras, East Coast, Central
. Central do.	27. South do.	42. Central Provinces, West	56. Do. East Coast, South
. North do.	28. Central do.	43. Do., Central	57. Madras, South
. Bengal Hills	29. Punjab, Submontane	44. Do., East	
. Orissa	30. Do., Hills	45. Gujarat	
. Chota Nagpur	31. North Punjab	46. Kathiawar	
South Bihar	32. West do.	47. Sind	