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ANNUAL SUMMARY, 1902.

INTRODUCTION.

The present annual summary completes the discussion of the meteorology of India for the year 1902.

It should be noted that in the monthly reviews it is attempted to present the facts and data from two different points of view. Meteorological data in India are chiefly utilized for the following purposes:—

1st.—In the discussion of the prevalence, and spread of diseases, more especially of cholera and other diseases of an epidemic character.

2nd.—In connection with agricultural questions, more especially the progress and character of the crops as determined by the weather conditions of the period.

India has hence been divided into two groups of divisions from what may be termed the medical and agricultural stand-points. For the comparison of medical and meteorological statistics, India is arranged into the following provinces, which are believed to be fairly homogeneous so far as the conditions of the prevalence of the more common diseases are concerned:—

(1) Burma Coast and Bay Islands.
(2) Burma Inland.
(3) Assam.
(4) Bengal and Orissa.
(5) Gangetic Plain and Chota Nagpur.
(6) Upper Sub-Himalayas, including the sub-montane districts of the United Provinces and the Punjab and the meteorological divisions of the South-East, South, Central and North Punjab.
(7) North-West Frontier, Indus Valley and North-West Rajputana.
(8) East Rajputana, Central India and Gujarat.
(9) Deccan.
(10) West Coast.
(11) South India.

The data for each of these divisions are given in Table I in large figures, and the portion of each monthly review, entitled, "Summary of the chief features of the weather in India during the month," is intended to give a sketch of the broader and more important features of the weather in India for the use of those who study the relations between the prevalence and spread of diseases and the weather conditions prevailing at the time in India.

According to the second method of arrangement, from the agricultural stand-point, India is divided into 57 meteorological districts or divisions each of which is fairly homogeneous so far as the distribution of rainfall and the general character of the crops and the conditions of their growth are concerned. The following gives the two series of divisions arranged under the respective political areas or provinces to which they belong:—

Political Division or Province.	Meteorological Division or District.	Meteorological Province.
BURMA	Tenasserim and Bay Islands.	Burma Coast and Bay Islands.
	Lower Burma	
	Arakan	
	Central Burma	Burma Inland.
	Upper Burma	
ASSAM	Assam (Surma)	Assam.
	,, (Brahmaputra)	
BENGAL	East Bengal	Bengal and Orissa.
	Deltaic Bengal	
	Central Bengal	
	North Bengal	
	Orissa	
	Chota Nagpur	Gangetic Plain and Chota Nagpur.
	South Bihar	
	North Bihar	
UNITED PROVINCES OF AGRA AND OUDH.	United Provinces, East	
	United Provinces, Central	
	South Oudh	
	North Oudh	
	United Provinces, East Sub-montane.	
	United Provinces, West Sub-montane.	Upper Sub-Himalayas.
PUNJAB AND NORTH-WEST FRONTIER PROVINCE.	South-East Punjab	
	South Punjab	
	Central Punjab	
	Punjab Sub-montane	
	North Punjab	
	West Punjab	North-Western Frontier, Indus Valley and North-West Rajputana.
BOMBAY, NORTH	Sind	
RAJPUTANA AND CENTRAL INDIA.	West Rajputana	East Rajputana, Central India and Gujarat.
	Central India, East	
	Rajputana, East, Central India, West.	
BOMBAY, NORTH	Kathiawar and Cutch	
	Gujarat	
UNITED PROVINCES	United Provinces, West.	

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Political Division or Province.	Meteorological Division or District.	Meteorological Province.
BOMBAY	Bombay Deccan	Deccan.
	Khandesh	
BERAR	Berar	
CENTRAL PROVINCES.	Central Provinces, West	
	" " Central	
	" " East.	
HYDERABAD OR THE NIZAM'S DOMINIONS.	Hyderabad, North	
	" South	
BOMBAY	Konkan	West Coast.
	Malabar	
MADRAS	Madras, South	South India.
	" " Central	
	" East Coast, South	
	" Central	
	" East Coast, Central	
	" East Coast, North	
COORG AND MYSORE	Coorg	
	Mysore	
HILL DISTRICTS	Assam Hills	Hills.
	Bengal Hills	
	United Provinces Hills	
	Punjab and North-West Frontier Province Hills.	
	Baluchistan Hills	

The double grouping is shown in Plate I at the end of this summary.

The data of Table I in the monthly reviews and in the present annual part are obtained, with a few exceptions, from the observations telegraphed daily to Simla for publication in the Daily Weather Report. In the case of thermometric observations, they are telegraphed to the nearest half degree. Hence the maxima and minima temperature data of the second class observatories derived from these telegraphic reports and given in that table occasionally differ to some slight extent from the means of the more exact data (recorded to tenths of a degree) tabulated in the observation forms sent to the Calcutta Office, and which are used in the calculation of the mean temperature data in Table II. There is also another reason why the mean maxima and minima data in Tables I and II differ to a slight extent. In Table I the daily or 24 hours' period is assumed to end at 8 A.M., and in Table II at 4 P.M., and hence the maximum temperature in Table I for any month of thirty-one days at any station gives the mean for thirty-one periods of 24 hours ending at 8 A.M. of the 31st, and in Table II for the same number of 24 hours' periods ending at 4 P.M. on the 31st, and hence virtually of a monthly period one day in advance of the former. Similarly for months of 28, 29 or 30 days. These remarks will explain some of the slight discrepancies which may be found between the maxima and minima temperature mean data in Tables I and II, and hence also in the monthly mean variation data given in these tables in the monthly reviews and annual summary.

The methods of exposure of the instruments at observatories in India, and of the reduction of the observations and the calculation of mean data, have been fully stated and explained in the Annual Reports on the Meteorology of India, and need not be repeated. The reader is referred more especially to the Annual Report of the year 1885 and to the "Instructions to observers of the Indian Meteorological Department" for full information on this subject.

Solar Radiation.

It was stated in the Annual Report of 1889 that the observations of solar thermometers are liable to large and irregular changes which make them unfit for accurate observation in India, except perhaps at the first class observatories. The instruments were hence withdrawn from use, except at the following stations :—

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

Observations of the solar thermometers were made during the year 1902 at these nine stations. The monthly averages of past years and their variations from the data of 1902 are given for eight of these stations in Tables I and II and the mean variation data for the past twelve years in Table III.

TABLE I.—*Average excess of maximum insolation over the corresponding maximum shade temperature.*

STATION.	Number of years observations used.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	YEAR.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Simla . . .	15—18	61·6	64·8	67·1	67·4	67·4	62·0	50·3	49·3	60·6	67·3	64·6	62·2	62·1
Lahore . . .	26—27	49·8	57·4	60·2	60·3	56·2	53·6	56·0	58·9	57·1	55·4	54·0	51·7	55·9
Jodhpur . . .	6	53·0	55·4	56·5	56·6	54·4	53·5	56·6	57·9	56·3	53·1	51·5	50·3	54·6
Allahabad . .	27	57·0	58·9	58·8	57·3	56·8	57·5	57·8	59·2	58·5	56·1	55·8	57·1	57·6
Calcutta (Alipore) .	25—26	52·0	53·6	54·1	54·8	55·7	53·3	54·7	55·2	56·0	55·5	52·8	51·9	54·1
Bombay . . .	26—27	53·3	54·6	53·7	54·1	53·8	48·5	44·5	48·6	52·6	53·4	53·1	52·6	51·9
Leh . . .	19	63·1	70·1	68·9	68·6	65·9	62·8	60·3	61·4	61·8	63·0	61·3	60·1	63·9
Aden . . .	17—20	52·1	52·9	52·1	48·6	46·2	42·6	43·1	45·1	49·7	52·0	50·4	50·7	48·8

TABLE II.—*Comparison of excess of sun over shade temperatures in 1902 with the averages of Table I.*

STATION.	Number of years instruments the observations of which are utilized for this comparison, has been in use.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Simla . .	3	−0·5	−2·1	−6·8	−7·6	−7·9	−9·0	−10·4	−8·4	−7·5	−7·2	−2·9	−3·6	−6·2
Lahore . .	17	−3·7	−5·9	−7·2	−7·3	−6·5	−4·9	− 5·3	−7·0	−3·6	−7·6	−7·0	−6·9	−6·1
Jodhpur . .	5	−0·3	+0·9	−0·5	−0·5	−1·0	−0·2	− 1·4	−2·0	−0·3	+1·0	−0·4	+0·6	−0·3
Allahabad . .	13	−2·1	−2·0	−4·3	−0·3	−1·8	−0·3	− 2·1	−0·1	+0·5	−1·2	+1·3	−2·2	−1·2
Calcutta (Alipore)	1	−5·6	−5·4	−3·3	−0·5	−2·7	−2·3	− 5·0	+0·7	+1·9	−0·4	+0·1	−1·1	−2·0
Bombay . .	17	−4·2	−7·7	−6·4	−2·9	−3·6	−1·9	− 2·2	−1·5	− 5·8	−3·3	−1·9	−5·6	−3·9
Leh . . .	7	−1·7	−3·4	−0·2	−0·5	−1·8	+3·6	+ 3·4	+5·0	+4·7	+3·1	+4·1	+1·9	+1·5
Aden . .	1	−0·4	+2·4	?	?	?	?	?	?	−2·1	?	−1·5	−2·5	?

TABLE III.—*Comparison of the annual mean excess of sun over shade temperature for each year of the period 1890-1901 with the averages of past years.*

STATION.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	°	°	°	°	°	°	°	°	°	°	°	°
Simla . .	?	−0·4	−2·9	−1·3	−2·9	?	+2·6	+1·3	+3·5	?	+1·7	−3·7
Lahore . .	+2·5	+1·8	+0·9	+0·4	−0·4	−0·6	−0·7	−0·5	−1·0	−2·3	−7·3	−6·1
Jodhpur . .	?	?	?	?	?	?	?	?	?	?	−0·9	−0·5
Allahabad .	+0·8	+0·7	−0·6	−0·3	+0·1	−0·5	+0·4	+0·9	−0·6	−0·9	−1·0	−0·9
Calcutta (Alipore)	+0·8	?	?	+1·2	+1·2	+1·5	−0·2	−1·9	−0·1	−2·4	−7·0	−4·5
Bombay . .	+1·0	−0·5	0	+0·5	−0·1	+0·2	+0·5	+0·6	−1·0	−1·6	−6·5	−3·8
Leh . . .	−6·7	−3·6	+4·3	+1·3	+2·2	+1·4	+0·7	+1·3	−1·5	+0·7	+3·6	+1·6
Aden . .	?	+5·2	+4·0	+1·3	+0·5	+1·0	−2·1	−4·4	−4·2	−0·9	−4·3	+0·3

Nocturnal Radiation.

It was stated in the Annual Report of 1890 that the observations of the terrestrial radiation thermometers in India are nearly as unsatisfactory as those of the solar radiation thermometers. Observations of these instruments were recorded during the year 1902 at the following stations:—

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

The following table, TABLE IV, gives the average data of past years for the above stations; TABLE V, the variations from the normal, and TABLE VI, the mean annual variation data for the past twelve years.

TABLE IV.—*Average depression of monthly mean nocturnal radiation temperatures below mean minimum shade temperatures.*

STATION.	Number of years observations used.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Srinagar	4—9	7·5	8·4	9·2	7·3	8·0	6·6	6·6	6·4	12·8	11·5	11·8	12·6	9·1
Simla	11—14	6·8	6·4	7·4	7·7	6·7	5·4	3·3	3·0	4·8	8·1	8·9	7·6	6·3
Lahore	25—26	9·3	9·1	8·6	9·1	8·6	5·9	3·8	4·1	6·2	9·4	10·2	9·5	7·8
Jodhpur	5—7	10·7	9·6	10·0	8·3	4·7	2·7	1·9	2·0	4·6	10·1	10·6	10·2	7·1
Allahabad	25—26	10·8	11·4	12·6	12·1	8·9	5·0	3·1	2·7	4·0	8·9	12·1	11·9	8·6
Calcutta (Alipore)	25—26	8·2	7·6	6·3	4·7	3·2	2·1	1·8	1·9	2·6	4·7	7·1	8·6	4·9
Bombay	27	10·1	9·5	8·3	6·7	4·7	2·8	2·2	2·4	3·1	6·5	9·8	10·7	6·4
Leh	18—20	10·5	9·0	10·7	11·4	11·1	11·5	10·2	10·9	12·1	14·7	15·1	11·9	11·6
Aden	18—21	2·8	2·1	2·5	3·0	3·2	3·4	2·0	2·0	3·3	3·8	4·0	3·3	3·0

TABLE V.—*Comparison of mean monthly depression of nocturnal radiation temperatures in 1902 with the averages of Table IV.*

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

TABLE VI.—*Comparison of the mean annual depression of nocturnal radiation temperatures with the averages of past years.*

STATION.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	1898.	1899.	1900.	1901.
	°	°	°	°	°	°	°	°	°	°	°	°
Simla	+2·3	+2·2	+3·1	+1·8	+1·6	?	−3·3	−1·6	−3·3	−2·7	−2·4	−2·6
Lahore	−1·2	−1·7	−0·9	−0·7	+0·7	+1·0	−0·3	−0·2	+1·0	+2·0	+2·2	+2·0
Jodhpur	?	?	?	?	?	?	?	+0·1	0	−0·1	−0·5	−0·1
Allahabad	−0·9	−0·6	0	−1·3	−1·2	+0·2	+1·0	+0·1	+1·2	+1·6	−0·9	+0·5
Calcutta (Alipore)	−0·3	+0·1	−0·1	−0·5	−0·1	+0·1	+0·4	+0·2	+0·2	−0·2	−2·2	−1·7
Bombay	+1·4	+2·5	+0·8	−1·0	−1·8	−1·2	+0·8	−0·3	−1·0	−0·6	−0·7	−1·1
Leh	+3·1	+3·4	+2·9	+0·4	−2·3	−2·8	−2·0	−2·4	−0·1	−0·4	−2·1	+0·7
Aden	−0·4	−0·5	+0·1	+1·2	+1·1	−0·4	−0·8	−0·4	−0·3	−0·1	+1·9	?

Temperature of the ground.

Observations of the temperature of the ground were recorded during the year 1902 at five stations—Calcutta, Allahabad, Dehra, Lahore and Jaipur.

The following table, Table VII, gives the average data of past years for the above stations, and Table VIII, the variations from the normal for each month during 1902.

The thermometers used for the purpose are verified standard mercurial thermometers with attached scales of porcelain, the scale being engraved also on the tube. At Allahabad, with the exception of the thermometer at nine feet, they are read three times daily at equal intervals of eight hours; at Lahore, with the exception of the thermometer at six feet, and at Jaipur, with the exception of the thermometers at 10, 20 and 45·6 feet, they are read four times daily at intervals of six hours, at Dehra once daily, *viz.*, at 3 P.M., and at Calcutta (Alipore) at 1-45 P.M.

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

TABLE VII.—*Average monthly mean temperatures of the ground and of the air.*

		Number of years observations used.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
			°	°	°	°	°	°	°	°	°	°	°	°	°
LAHORE.	Air	28—30	52·0	56·7	67·8	79·6	87·4	91·2	88·3	86·6	83·9	74·9	62·4	53·2	73·6
	Surface	17—18	50·4	57·4	74·5	90·2	101·3	104·6	101·2	99·2	95·6	78·8	61·2	51·3	80·5
	1 foot deep	17—18	57·4	60·4	70·5	81·5	89·9	94·4	94·8	94·0	92·2	82·9	71·1	61·3	79·2
	3 feet "	17—18	62·8	63·3	70·0	78·9	86·5	91·5	92·9	92·6	91·9	85·6	76·3	67·7	80·0
	6 " "	17—18	71·4	69·3	70·7	75·0	80·2	84·8	87·5	88·5	88·9	87·0	82·2	76·3	80·2
JAIPUR.	Air	27—28	58·8	63·3	74·6	85·1	90·6	90·6	83·9	81·4	81·9	76·2	67·7	60·0	76·2
	Surface	21—22	63·1	70·0	83·8	95·2	101·7	100·7	92·1	89·9	91·7	85·6	72·6	63·8	84·2
	4 inches deep	16—17	62·0	69·6	82·0	90·7	95·9	97·9	91·2	91·4	88·2	84·9	73·5	63·0	82·5
	1 foot deep	21—22	61·6	66·8	77·6	87·6	94·3	95·5	98·1	86·8	87·6	83·4	73·0	63·7	80·6
	3 feet "	21—22	66·8	68·0	74·5	82·0	87·7	91·2	88·8	86·7	87·0	85·1	78·2	71·0	80·6
	10 " "	20—22	74·5	72·9	74·1	77·8	81·8	85·3	86·2	86·0	85·8	85·4	82·7	78·5	80·9
	20 " "	21	80·6	79·6	78·6	78·3	78·9	80·1	81·4	82·3	82·9	83·2	83·2	82·5	81·0
	45·6 " "	15—16	81·8	81·9	81·9	81·9	81·9	81·9	81·8	81·8	81·7	81·7	81·7	81·8	81·8
DEHRA.	Air	30—31	54·8	57·4	66·9	77·1	82·6	84·0	79·4	78·0	76·9	70·6	62·4	56·1	70·5
	1·1 feet deep	21—22	57·4	59·1	68·0	78·8	86·5	88·4	84·4	82·5	81·5	76·4	67·7	60·3	74·3
	3·2 " "	21—22	62·0	61·4	67·1	75·8	82·5	85·1	83·6	82·2	81·8	78·4	72·1	65·9	74·8
	6·4 " "	20—22	67·7	64·9	67·3	71·8	76·9	80·5	81·6	81·6	81·3	80·2	76·1	71·6	75·1
	12·8 " "	20—22	74·0	72·0	71·0	71·5	73·3	75·4	77·4	79·2	79·8	79·5	78·3	76·3	75·6
	25·6 " "	19—21	76·4	75·7	75·0	74·4	74·1	74·1	74·6	76·0	76·9	77·1	77·1	76·9	75·7
ALLAHABAD.	Air	29—31	60·6	65·3	77·8	87·7	92·4	90·6	84·7	83·2	83·2	78·6	69·0	60·7	77·8
	Surface	22—23	59·6	65·6	81·0	92·8	102·1	99·4	88·9	87·3	87·6	81·2	67·9	59·0	81·0
	1 foot deep	22—23	61·1	65·6	76·0	86·4	94·2	94·9	87·9	86·0	85·9	81·1	71·0	62·9	79·0
	3 feet "	22—23	66·7	68·1	74·2	82·5	89·3	92·2	88·3	86·3	86·0	83·5	76·8	70·0	80·3
	9 " "	15	78·6	77·0	76·8	78·3	81·1	83·6	84·8	84·7	84·7	84·6	83·5	81·3	81·6
CALCUTTA (ALIPORE).	Air	16	76·9	81·6	90·4	95·4	93·5	91·3	88·0	87·1	87·4	86·6	81·2	76·1	86·3
	Surface	23	76·2	85·0	102·1	111·5	106·9	97·8	93·8	93·2	94·1	93·0	85·7	77·0	93·0
	1 foot deep	22—23	67·5	71·2	78·9	85·9	88·1	87·1	85·9	85·5	85·4	83·3	76·4	69·0	80·4
	3 feet "	22—23	72·1	73·8	78·9	84·7	87·4	87·3	86·4	86·1	86·0	85·1	80·9	74·9	82·0
	6 " "	17—19	77·2	76·4	77·8	81·0	83·8	85·1	85·1	85·1	85·2	85·0	83·6	80·4	82·1

The mean results for Calcutta in Table VII (above) show that the surface of the ground is, on the average of the whole year, 6°·7 hotter than the air at about 2 P.M. They also indicate that the temperature increases 1°·7 in passing from one foot to a depth of six feet.

At Allahabad the ground surface is on the average 3°·2 hotter than the air. The average temperature decreases 2°·0 down to a depth of one foot, and then increases 1°·3 to a depth of three feet, and thence 1°·3 to a depth of 9 feet.

At Jaipur (where the soil on which the instrument is placed is almost pure sand) the surface is as much as 8°·0 hotter than the air on the average of the whole year. In May the difference reaches the large amount of 11°·1. The mean temperature decreases to a depth of one foot, is constant between 1 and 3 feet, and then slowly increases to a depth of 45·6 feet.

At Lahore the surface soil, which is similar in character to that of Jaipur, is on the average 6°·9 hotter than the air. The temperature decreases through a depth of one foot, and thence increases slowly to a depth of six feet.

TABLE VIII.—*Comparison of the mean monthly temperatures of the ground in 1902, with the averages of Table VII.*

		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
		°	°	°	°	°	°	°	°	°	°	°	°	°
LAHORE.	Air	+2·6	+5·3	+3·9	+2·0	+4·1	+0·8	+2·0	+2·8	+1·1	+3·0	+2·9	+0·8	+2·6
	Surface	−4·0	−0·8	0	−2·3	−0·4	−0·6	+2·0	+1·3	−2·1	+0·6	−0·6	−4·1	−0·9
	1 foot deep	−0·6	+1·4	+1·7	−0·6	+0·2	−0·1	+1·1	+1·2	−0·8	+1·5	+1·1	−1·1	+0·4
	3 feet "	0	+1·1	+1·7	−0·2	−0·1	+0·1	+0·5	+1·1	−0·5	+0·8	+1·0	−0·2	+0·4
	6 " "	0	+0·3	+1·2	+0·4	−0·1	+0·3	+0·2	+0·5	+0·4	+0·4	+0·5	−0·1	+0·3
JAIPUR.	Air	+2·9	+4·9	+5·1	+2·6	+1·9	+1·1	+1·8	+3·4	+0·3	+1·6	+1·2	+0·6	+2·3
	Surface	−1·3	+0·3	+3·7	+1·9	+1·1	+2·2	+2·7	+6·0	−0·9	+1·0	+0·3	−2·5	+1·2
	4 inches deep	+0·8	+1·5	+2·3	+0·1	−1·0	+2·0	+2·9	+5·4	+0·2	+0·4	+1·4	+0·9	+1·4
	1 foot "	+2·0	+1·8	+2·5	+0·7	−0·4	+1·1	+2·1	+4·2	+0·4	+1·5	+2·2	+1·8	+1·7
	3 feet "	+1·3	+1·9	+2·7	+1·3	+0·7	+0·9	+1·7	+3·5	+1·0	+0·5	+0·7	+0·2	+1·4
	10 " "	+3·0	+2·6	+1·9	+0·6	−0·4	−0·8	0	+0·5	+1·1	+0·4	+1·5	+2·0	+1·0
	20 " "	+3·1	+2·9	+2·8	+2·7	+2·2	+1·9	+1·6	+1·7	+1·6	+1·8	+1·9	+2·0	+2·2
	45·6 " "	+0·8	+0·8	+0·8	+0·8	+0·8	+0·7	+0·8	+0·8	+0·8	+0·8	+0·9	+0·9	+0·8
DEHRA.	Air	+2·7	+3·3	+4·8	+3·7	+1·5	+1·1	+6·8	+4·5	+1·4	+2·4	+2·2	+0·7	+2·9
	1·1 feet deep	+2·2	+5·3	+5·9	+1·5	+2·4	+2·1	+0·5	+0·7	+0·3	−1·1	+0·2	−0·6	+1·6
	3·2 " "	+2·0	+4·6	+5·3	+3·0	+1·8	+1·7	+0·7	+0·5	+0·4	−0·4	+0·1	+0·2	+1·7
	6·4 " "	+1·5	+3·7	+3·4	+2·6	+1·2	+1·5	+0·6	+0·4	+0·2	−0·2	+0·2	+0·8	+1·3
	12·8 " "	+0·9	+1·2	+1·6	+1·9	+1·6	+1·6	+1·1	+0·5	+0·1	+0·1	+0·1	+0·3	+0·9
	25·6 " "	+0·5	+0·6	+0·7	+0·7	+0·8	+0·9	+0·9	+0·3	0	+0·3	+0·3	+0·4	+0·5
ALLAHABAD.	Air	+1·1	+0·9	+2·7	+1·3	+1·4	+3·0	−0·2	+0·8	−0·8	−0·7	−1·9	−1·9	+0·5
	Surface	+0·5	+1·7	+4·9	+3·9	+3·0	+6·0	+1·8	+5·3	+1·5	+1·3	−0·2	−1·5	+2·4
	1 foot deep	+1·4	+1·7	+4·2	+3·8	+2·2	+3·8	+1·1	+1·5	−0·2	+2·1	+0·2	−1·0	+1·7
	3 feet "	+1·1	+1·1	+3·2	+3·0	+1·9	+2·1	+2·2	+0·7	+0·6	+1·2	+0·8	0	+1·5
	9 " "	+0·5	+0·5	+0·9	+1·5	+1·4	+1·3	+1·5	+1·1	+1·0	+0·9	+0·8	+0·4	+1·0
CALCUTTA (ALIPORE).	Air	+1·7	+1·2	+2·0	−2·4	−1·3	+0·7	+0·2	+1·5	+1·3	+0·8	0	+0·6	+0·5
	Surface	+2·3	−1·4	−7·3	−12·9	−9·6	−1·9	−3·0	0	−1·1	−1·5	+0·8	+4·1	−2·6
	1 foot deep	+2·0	+1·7	+1·8	−2·4	−3·0	−0·9	−1·4	−0·1	+0·4	+0·4	+0·6	+1·9	+0·1
	3 feet "	+1·4	+1·1	+1·2	−1·6	−2·9	−1·9	−1·4	−0·9	−0·2	+0·1	+0·6	+1·4	−0·3
	6 " "	+0·9	+1·4	+1·6	+0·5	−1·1	−1·8	−1·3	−1·3	−0·9	−0·4	+0·1	+0·6	−0·1

Temperature.

The methods of exposing the thermometers at observatories in India and of deducing the daily and monthly means from the observed readings of the instruments are described in pages 18-19 of the Annual Report for 1890.

The variations of the mean temperature of each month from the normal given in Table II of the monthly reviews are deduced by a comparison of the actual monthly means with the normal monthly means obtained by the same methods, given in Table XII of average monthly temperatures of 87 stations in India and Ceylon, etc., in pages 19 to 22 of the Annual Report for the year 1890. Average data for 134 stations will also be found in pages 39 to 42 of the Annual Report for the year 1887.

Average or normal monthly temperatures of 82 second class stations, based on the whole of the data up to December 1896, were given in Table I of the Annual Summary for 1896.

The variations obtained by a comparison of these normal means with the actual monthly means in Table II of the monthly weather reviews for the year are given in Table XII.

The mean variations given in Table XIII of the Geographical Summary are derived from the variation data of Table II of the monthly weather reviews of the year 1902.

In Table I, published in each monthly review, the mean temperature of the day is calculated, as in the Daily Weather Report, by the formula, daily mean $= \frac{\text{Maximum} + \text{Minimum}}{2}$. It differs from the true daily mean by amounts varying slightly with the season. The variations of the daily or monthly actual means obtained by this method from normal daily or monthly means similarly calculated, usually differ very little from those obtained by the more laborious computation of true daily means and the comparison of these with normal true daily means. In Table I of the monthly weather reviews of the year 1902 the variations of the monthly mean maxima and minima temperatures from the normal, as well as the variations of the monthly mean temperatures, *i.e.*, $\frac{\text{Maximum} + \text{Minimum}}{2}$ are given.

Normal monthly mean maxima and minima temperatures of 94 stations, calculated from the observations of the eleven years' period, 1878—1888, were given in the Annual Summary for 1891. The data for the years 1889—1893 were given in the 1894 Annual Summary, Tables I and II.

The additional data for the years 1894—1899 have been utilized to obtain what are probably slightly more accurate means than those published in the 1894 Annual Summary. The re-calculated means are given in Tables IX, X and XI.

Tables XIII and XIV (*a*), XIV (*b*) and XIV (*c*) give summaries of the temperature variation data for each month of the year 1902 and for the year. In the first table (Table XIII) the same division has been adopted as that employed in the Annual Reports from 1881 to 1890. This enables an exact comparison to be made of the temperature data of the year 1902 with those of previous years given in the Annual Reports. In the second set of tables [Table XIV (*a*), XIV (*b*) and XIV (*c*)] the variation data are given for the eleven meteorological provinces into which the empire is divided for the purpose chiefly of comparing meteorological and health statistics, and in the last table (Table XV) the data are given for 55 of the 57 smaller divisions or areas into which India is sub-divided with a view to the comparison of meteorological and crop statistics—

TABLE IX.—*Average monthly and annual means of maximum temperatures of 171 stations in India, etc.*

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Mergui	88·1	89·6	91·2	91·9	89·1	85·7	84·5	84·2	84·4	87·2	87·4	87·3	87·6
Tavoy	89·5	91·1	93·3	94·0	88·4	84·8	83·3	82·8	84·0	88·0	87·9	87·7	87·9
Moulmein	88·4	91·5	94·1	94·6	89·3	84·6	83·0	83·0	84·8	88·4	88·4	87·2	88·1
Rangoon	89·1	92·8	96·6	98·6	91·9	86·5	85·3	85·1	85·7	87·7	87·6	87·3	89·5
Bassein	85·7	90·0	94·4	96·2	91·5	86·3	84·7	84·5	85·5	87·4	86·2	84·4	88·1
Diamond Island	84·0	84·2	85·6	88·7	88·6	85·6	84·3	84·3	84·8	86·5	85·5	83·9	85·5
Akyab	81·4	84·8	89·1	91·8	90·6	86·0	84·7	84·4	86·6	87·8	85·1	81·7	86·2
Toungoo	85·3	90·9	97·8	100·4	95·7	89·1	86·7	86·7	89·0	90·3	87·3	84·0	90·3
Thayetmyo	85·9	92·6	99·8	103·0	98·4	91·4	88·9	88·9	89·9	90·4	88·0	84·6	91·8
Taunggyi	73·3	76·0	82·9	85·7	79·9	77·2	75·8	75·8	77·2	77·5	73·7	70·6	77·1
Lashio	75·1	79·0	86·2	90·9	88·3	85·5	83·6	83·1	84·8	83·5	77·1	73·7	82·6
Bhamo	77·2	82·2	89·0	93·9	93·7	90·5	87·8	88·1	90·1	88·5	81·8	76·3	82·6

TABLE IX.—*Average monthly and annual means of maximum temperatures of 171 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Kindat	76·2	81·9	90·2	96·8	95·1	90·0	88·6	87·6	88·2	86·9	81·4	75·5	86·5
Minbu	85·7	91·6	99·3	103·4	97·5	93·0	91·3	90·6	90·9	91·3	88·6	84·0	92·3
Yamethin	87·2	92·5	99·1	102·3	95·3	91·9	90·0	89·8	91·7	92·5	88·8	85·0	92·2
Mandalay	84·1	89·9	97·7	102·3	99·0	95·0	94·2	93·3	92·8	91·8	86·7	82·3	92·4
Chittagong	78·3	82·3	86·7	88·9	88·6	86·6	85·7	85·5	86·8	86·5	83·0	78·1	84·8
Silchar	77·8	80·7	86·0	88·5	88·7	89·4	90·2	89·5	89·8	88·7	84·8	79·7	86·2
Barisal	77·6	81·7	89·3	92·2	91·9	88·7	87·3	86·8	88·5	87·6	82·8	77·6	86·0
Narayanganj	77·9	82·2	90·0	93·2	91·3	89·0	88·3	87·5	88·5	87·9	83·5	78·0	86·4
Mymensingh	75·0	78·4	86·9	90·8	88·6	87·2	87·1	86·9	87·1	86·2	81·5	76·2	84·3
Saugor Island	76·6	81·2	87·2	90·8	91·8	90·4	87·8	87·2	88·2	86·9	81·7	76·3	85·5
Calcutta	77·1	82·0	90·8	95·6	94·5	91·1	88·0	87·1	87·7	86·7	81·4	76·5	86·5
Jessore	77·9	83·1	92·4	97·2	94·8	91·5	89·2	88·6	89·4	88·4	83·1	77·6	87·8
Berhampore	76·8	82·0	92·7	100·0	96·5	92·4	89·4	88·6	88·9	87·5	81·9	76·5	87·8
Bogra	76·1	80·2	90·2	96·2	92·5	89·8	89·1	88·3	88·4	87·2	82·0	76·9	86·4
Sibsagar	70·1	73·1	79·1	82·5	85·9	89·3	90·0	89·2	88·1	84·8	78·3	71·5	81·8
Dhubri	74·0	78·0	86·5	88·7	85·9	85·7	85·9	86·0	85·1	84·5	79·8	74·3	82·9
Burdwan	78·8	83·8	93·7	100·6	98·4	93·8	90·2	89·2	89·7	88·7	83·2	78·2	89·0
Patna	73·0	78·2	90·9	100·6	100·2	96·4	90·1	89·1	89·9	88·2	81·7	74·2	87·7
Gaya	75·9	81·3	93·3	103·4	104·9	99·6	91·4	90·0	91·0	89·6	83·2	76·2	90·0
Benares	74·3	80·4	92·8	103·1	105·5	100·1	91·2	89·5	91·0	89·9	82·1	75·0	89·6
Darjeeling	46·8	47·9	56·5	62·2	63·8	65·2	66·0	65·5	64·1	60·5	54·2	48·7	58·5
Jalpaiguri	72·0	76·5	84·8	89·5	88·3	87·9	88·2	88·1	87·2	85·8	81·3	75·2	83·7
Dinajpur	75·7	79·4	89·1	94·6	91·7	89·5	89·1	88·8	88·2	87·4	82·4	76·9	86·1
Purnea	74·7	79·1	89·9	97·0	94·8	92·1	90·0	89·2	88·9	87·4	81·9	75·8	86·7
Darbhanga	72·7	76·8	87·9	96·1	95·6	92·4	89·5	88·5	88·3	86·7	81·3	74·5	85·9
Gorakhpur	72·9	78·0	90·5	100·4	101·0	96·9	91·1	89·8	90·5	88·7	81·6	74·2	88·0
Bahraich	72·4	76·7	89·0	99·6	103·0	97·4	91·3	89·9	91·0	90·1	82·8	75·0	88·2
Bareilly	70·6	75·0	87·5	99·3	103·2	99·7	91·6	89·9	90·5	89·5	81·1	72·8	87·6
Roorkee	69·6	73·1	85·4	98·2	102·8	100·4	92·1	90·7	91·3	89·3	80·5	72·4	87·2
Umballa	67·8	71·5	83·9	97·7	105·2	101·4	93·3	92·8	93·7	93·2	82·3	72·1	87·9
Ludhiana	67·2	71·2	84·4	97·4	104·4	104·8	97·0	95·0	94·9	91·9	80·6	71·0	88·3
Sialkot	66·2	69·6	81·7	95·2	103·1	105·5	97·6	94·7	95·7	92·3	80·9	70·1	87·7
Rawalpindi	63·1	64·8	76·5	88·4	98·1	102·8	97·3	93·9	93·6	88·2	77·2	67·6	84·3
Ranikhet	54·5	55·6	65·3	74·8	78·2	77·9	73·9	72·4	72·6	69·2	62·5	57·5	67·9
Dehra Dun	66·2	69·2	79·7	90·6	95·0	93·0	85·5	84·0	84·3	82·3	75·0	68·7	81·1
Mussooree	48·9	50·1	60·6	72·4	78·0	76·7	71·0	69·1	68·6	64·9	57·6	51·4	64·1

TABLE IX.—*Average monthly and annual means of maximum temperatures of 171 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Chakrata	50·6	51·2	61·7	70·3	74·3	74·3	69·9	68·8	68·7	66·2	60·0	54·9	64·2
Simla	44·5	45·9	56·4	65·2	73·1	74·4	69·2	67·1	66·1	62·4	56·1	49·4	60·8
Murree	47·2	48·0	58·3	68·8	76·9	81·7	77·0	74·4	73·8	69·3	60·9	52·8	65·8
Srinagar	39·0	42·3	55·4	68·2	76·9	83·1	84·9	83·9	79·4	69·7	60·3	47·8	65·9
Leh	29·8	31·4	43·1	57·1	64·0	73·1	78·2	77·4	70·3	58·6	47·6	34·7	55·4
Kailang	34·3	33·5	41·4	53·0	62·0	71·8	73·9	73·7	69·2	60·4	51·6	40·0	55·4
Allahabad	74·4	80·2	93·0	103·8	107·0	101·7	91·6	89·8	91·5	90·5	83·1	75·7	90·2
Lucknow	74·0	78·8	91·5	102·4	105·0	100·5	92·2	90·3	92·1	91·2	83·3	75·7	89·8
Cawnpore	73·9	78·8	90·8	102·2	106·2	101·1	92·5	89·9	92·4	91·5	84·1	76·3	90·0
Mainpuri	71·7	76·8	89·7	102·5	107·5	101·2	92·7	90·8	91·1	92·9	84·2	75·1	89·9
Agra	73·5	78·6	91·1	102·6	107·2	104·3	93·3	91·1	91·1	93·3	84·4	76·1	90·7
Meerut	70·4	74·5	86·6	98·5	103·0	100·6	92·8	90·9	91·8	90·5	81·3	72·9	87·8
Delhi	70·7	74·8	87·4	99·7	104·7	103·2	94·0	91·8	93·0	92·1	82·9	73·7	89·0
Lahore	69·0	72·7	85·1	98·2	105·7	107·4	100·6	98·2	98·9	95·1	83·6	73·2	90·6
Cherat	49·2	52·1	61·5	75·5	89·6	94·3	88·6	86·9	85·8	78·6	67·2	55·5	73·7
Peshawar	63·5	66·1	76·1	86·9	98·6	105·9	102·9	99·2	96·0	88·4	77·1	67·5	85·7
Khushab	67·6	68·7	80·6	95·3	104·9	107·1	102·6	100·2	99·6	93·8	82·8	71·7	89·6
Dera Ismail Khan	69·1	71·9	83·5	94·5	104·2	108·0	103·4	101·1	100·5	94·0	82·1	72·5	90·4
Montgomery	68·5	72·8	85·7	100·1	108·3	110·0	104·7	102·0	101·7	96·6	84·2	72·9	92·3
Mooltan	70·2	73·7	86·5	99·0	106·6	107·8	103·8	100·7	100·3	95·5	84·4	73·9	91·9
Sirsa	71·0	75·2	88·6	101·1	107·2	106·7	100·5	98·4	98·9	96·1	84·9	74·9	92·0
Bikaner	71·8	75·9	89·3	101·3	107·1	106·5	100·4	97·1	98·5	95·9	84·7	75·3	92·0
Pachpadra	78·4	83·2	94·6	106·3	109·8	105·7	97·7	94·8	97·2	98·7	90·7	81·5	94·7
Kurrachee	76·9	79·7	86·1	90·6	92·9	94·0	90·6	88·2	88·8	91·6	87·4	80·3	87·3
Hyderabad Sind	76·8	80·8	53·1	102·7	106·9	104·2	98·9	95·5	97·5	98·0	88·0	79·1	93·5
Jacobabad	73·6	77·9	91·1	103·1	111·6	112·7	107·8	103·8	103·5	98·6	86·8	76·7	95·6
Quetta	51·3	53·1	64·5	74·2	83·5	90·6	92·7	90·5	85·4	74·6	64·8	56·6	73·5
Chaman	53·4	57·0	67·3	81·6	94·3	100·2	101·5	98·0	91·6	78·7	69·4	59·0	79·3
Colombo	87·5	88·3	89·4	88·9	88·0	85·7	85·4	85·6	86·0	85·7	86·4	86·9	87·0
Trivandrum	83·4	85·0	87·1	87·5	86·3	82·9	82·1	82·3	82·9	82·7	82·6	83·0	84·0
Cochin	89·1	89·9	91·2	91·5	89·6	85·0	83·5	83·7	84·6	86·2	87·5	88·5	87·5
Calicut	87·6	88·7	90·3	91·3	90·4	84·6	82·5	82·8	84·3	86·2	87·4	87·6	87·0
Mangalore	88·5	88·1	89·4	91·1	90·3	85·0	83·0	82·8	83·3	85·7	88·3	89·5	87·1
Mercara	77·7	81·2	84·6	83·9	80·3	72·9	68·9	69·7	72·2	75·8	75·9	75·2	76·5
Karwar	86·9	86·3	87·8	90·0	89·8	85·3	83·0	82·5	82·7	85·4	87·4	87·7	86·2
Goa	86·9	86·6	87·3	89·2	90·0	85·2	82·4	81·9	82·6	85·3	87·4	87·4	86·0

TABLE IX.—*Average monthly and annual means of maximum temperatures of 171 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Mormugao	85·8	84·9	86·9	90·1	90·0	87·0	83·7	83·4	83·5	86·0	87·0	86·3	86·2
Ratnagiri	87·7	86·4	87·8	90·1	91·1	86·6	83·9	83·7	84·2	88·2	90·5	89·5	87·5
Bombay	82·6	82·6	85·7	88·5	90·7	87·6	84·4	84·0	84·5	87·5	86·9	84·5	85·8
Surat	86·9	89·7	96·6	100·1	98·2	93·7	87·3	87·0	88·5	93·0	90·6	87·4	91·6
Bhavnagar Para	82·5	85·9	93·7	100·8	102·9	98·3	93·4	92·8	93·0	96·1	89·9	85·0	92·9
Veraval	81·5	81·5	86·3	87·7	86·7	86·4	83·7	82·7	83·8	89·3	88·3	84·1	85·2
Rajkot	84·0	87·2	95·6	102·8	105·4	99·8	90·6	88·9	91·4	95·3	90·4	85·4	93·1
Bhuj	80·4	84·3	93·9	101·0	101·3	97·6	90·0	88·7	92·1	96·1	89·2	82·2	91·4
Ahmedabad	84·0	87·5	97·0	105·4	107·1	99·7	91·4	90·1	92·1	96·7	91·4	85·9	94·0
Deesa	83·1	86·5	96·1	104·2	106·7	101·9	91·7	88·9	92·8	96·9	91·5	85·4	93·8
Tinnevelly	87·7	92·0	96·5	98·0	100·4	97·1	95·8	96·7	97·8	93·7	88·7	86·2	94·2
Madura	87·5	92·0	96·7	99·3	100·1	98·2	97·2	96·6	95·3	91·3	87·3	86·0	94·0
Trichinopoly	87·4	92·3	97·9	101·1	101·8	99·0	97·5	96·6	95·5	91·0	87·1	85·2	94·4
Coimbatore	86·8	92·0	96·3	97·4	95·0	89·9	88·0	88·7	89·6	88·3	86·2	85·1	90·3
Salem	88·3	93·6	98·6	100·7	99·2	95·2	93·1	92·2	91·3	89·6	87·3	86·4	93·0
Wellington	67·6	70·8	74·1	75·9	76·1	72·2	71·1	71·4	71·3	69·1	67·3	66·2	71·1
Mysore	84·0	88·8	93·5	94·0	92·1	84·6	82·7	84·0	84·5	84·1	82·5	81·6	86·4
Bangalore	80·2	85·8	90·7	93·2	91·3	84·7	81·9	81·8	81·9	81·4	79·3	78·0	84·2
Hassan	81·5	85·4	91·0	91·1	87·6	79·5	76·8	78·3	79·8	81·3	79·8	79·4	82·7
Chitaldroog	83·8	89·3	94·4	95·8	93·7	85·8	81·9	82·1	83·5	84·6	82·1	81·3	86·5
Cuddapah	88·4	95·1	101·7	105·2	106·3	100·3	95·3	93·7	92·5	91·9	88·5	86·8	95·5
Kurnool	88·7	94·5	100·9	103·6	104·8	96·7	91·4	89·8	89·2	90·9	88·1	86·9	93·8
Bellary	87·6	94·2	100·3	103·4	102·4	94·5	90·9	90·8	90·6	89·7	86·7	85·6	93·1
Raichur	86·7	92·8	98·8	102·1	103·4	94·7	90·1	88·5	87·7	89·0	86·1	84·9	92·1
Hyderabad (Deccan)	84·5	91·3	97·9	102·0	103·8	94·3	87·1	86·1	86·7	87·6	83·8	82·4	90·6
Gulbarga	86·7	92·6	99·2	103·2	104·8	94·7	89·8	88·3	87·5	90·0	87·0	85·0	92·4
Belgaum	83·5	88·6	93·9	96·0	93·0	80·8	75·7	76·1	78·9	83·1	82·1	81·6	84·4
Bijapur	85·2	90·4	96·4	99·8	100·3	90·5	86·2	86·1	85·9	88·2	85·6	84·0	89·9
Sholapur	87·7	93·7	100·4	104·8	104·8	94·8	89·5	88·8	88·4	89·9	87·5	85·5	93·0
Poona	85·9	91·3	97·7	101·6	99·2	89·2	82·3	81·9	84·4	88·5	86·3	84·3	89·4
Ahmednagar	84·0	88·1	93·8	98·9	99·4	90·4	85·2	84·8	85·2	88·1	85·3	83·0	88·9
Malegaon	85·6	89·9	97·3	103·2	104·0	94·9	87·4	86·6	87·9	90·6	87·1	84·2	91·6
Buldana	81·3	86·2	93·7	100·0	101·1	91·8	83·9	82·1	83·1	85·5	82·0	79·4	87·5
Chikalda	73·2	77·8	85·8	92·2	93·8	83·8	74·2	72·7	74·9	77·8	74·7	72·2	79·4
Akola	85·2	90·7	99·2	106·0	107·7	98·2	89·0	87·2	89·1	91·3	87·0	83·6	92·9
Amraoti	84·6	90·1	98·1	105·0	107·7	97·2	87·3	86·1	88·4	90·6	86·3	82·7	92·0

TABLE IX.—*Average monthly and annual means of maximum temperatures of 171 stations in India, etc.*—contd.

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Khandwa	83·9	88·8	97·6	104·8	106·5	97·6	87·6	85·5	88·1	91·1	86·8	83·0	91·8
Nagpur	83·5	89·3	98·3	105·5	109·3	98·3	87·8	87·0	89·3	90·1	85·0	81·3	92·1
Indore	79·4	83·3	92·5	100·6	102·8	94·4	84·5	82·9	85·4	87·9	83·2	79·3	88·0
Neemuch	77·6	81·2	91·4	100·9	104·0	98·3	87·4	85·0	87·9	90·4	84·5	78·4	88·9
Mount Abu	66·6	68·8	77·7	85·7	88·2	83·3	74·6	72·0	75·3	78·8	73·5	68·6	76·1
Ajmer	74·1	77·8	89·1	99·3	103·8	100·5	91·3	88·2	90·8	92·0	83·9	76·3	88·9
Sambhar	73·6	77·4	88·7	100·4	105·1	102·3	94·3	91·3	93·7	93·3	84·5	76·0	90·1
Jaipur	74·6	78·6	89·7	101·7	106·6	102·5	93·5	91·6	94·2	94·3	85·8	77·7	90·9
Sirsgor	76·9	81·3	92·1	101·5	105·1	97·8	85·2	83·6	86·6	87·6	82·0	76·7	88·0
Sutna	75·1	79·6	91·3	101·7	105·5	98·7	87·4	85·9	88·0	87·9	81·1	75·1	88·1
Nowgong	75·1	80·3	92·4	103·4	107·4	101·6	89·9	87·9	90·4	90·3	82·3	75·2	89·7
Jhansi	76·4	81·2	93·1	104·2	108·3	102·8	91·2	88·9	91·7	92·9	85·3	78·4	91·2
Hoshangabad	80·3	85·4	95·7	104·8	107·6	98·1	86·7	85·0	88·1	89·6	84·3	79·3	90·4
Pachmarhi	71·3	75·5	84·4	92·5	95·1	85·9	75·8	74·7	77·2	78·1	73·3	70·3	79·5
Jubbulpore	77·6	82·4	92·8	102·0	105·6	96·9	85·9	84·7	87·4	87·4	81·9	76·9	88·5
Seoni	79·2	83·8	93·2	101·1	103·9	94·2	83·8	83·1	85·6	86·6	81·3	77·7	87·8
Chanda	85·4	91·8	99·7	106·5	109·5	98·5	88·6	87·6	89·1	90·1	85·2	82·5	92·9
Raipur	81·6	87·4	96·5	104·3	107·4	97·2	86·5	85·9	88·2	88·3	83·2	79·2	90·5
Sambalpur	82·2	88·0	96·7	104·3	106·9	97·3	87·5	87·2	89·3	88·8	83·8	79·8	91·0
Chaibassa	81·1	85·2	94·8	103·6	105·1	96·2	89·6	88·6	89·9	88·7	83·5	79·7	90·5
Ranchi	74·4	78·2	87·6	97·1	99·6	91·1	84·0	83·3	84·4	83·0	77·8	73·7	84·5
Hazaribagh	73·1	78·0	88·6	98·1	99·2	92·5	84·6	83·7	84·7	83·3	77·3	72·2	84·6
Balasore	81·3	85·4	92·7	97·5	97·6	91·9	88·5	87·9	88·9	88·0	83·6	80·0	88·6
False Point	79·1	82·8	87·3	89·9	91·0	90·3	87·6	87·0	87·9	87·4	82·4	77·9	85·9
Cuttack	84·5	90·1	97·0	102·0	101·6	95·5	89·8	89·1	90·2	89·7	85·1	82·1	91·4
Gopalpur	80·3	83·5	86·6	87·7	89·8	89·2	87·4	87·4	88·3	87·6	83·4	80·3	86·0
Waltair	80·7	84·5	87·1	89·9	92·4	90·9	89·5	89·2	89·1	88·7	84·4	81·2	87·3
Cocanada	81·0	85·8	91·7	95·6	100·7	95·2	91·7	89·7	89·2	87·9	83·5	80·7	89·4
Masulipatam	83·5	86·9	91·4	94·9	100·1	97·7	92·7	91·3	90·7	88·9	85·1	83·0	90·5
Nellore	86·0	90·6	96·2	100·9	106·0	101·8	97·3	95·6	94·6	91·2	86·7	84·8	94·3
Madras	84·7	86·9	90·0	93·1	98·5	98·5	95·7	93·8	93·0	89·0	85·1	83·3	91·0
Cuddalore	83·3	85·4	89·3	92·8	98·8	98·2	95·9	93·7	91·9	88·1	84·8	83·2	90·5
Negapatam	81·8	84·4	88·7	92·5	97·3	97·1	95·9	93·7	92·5	88·4	84·1	81·5	89·8
Pamban	81·9	84·9	88·8	90·9	91·2	89·7	89·1	89·0	89·0	87·1	84·3	81·6	87·3
Trincomalee	83·3	85·0	88·0	91·0	93·0	91·6	91·6	92·1	91·2	88·4	85·3	82·5	88·6
Port Blair	86·4	88·1	91·1	92·5	89·0	86·0	85·4	85·3	85·1	86·9	86·8	85·9	87·4

TABLE IX.—*Average monthly and annual means of maximum temperatures of 171 stations in India, etc.*—concld.

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Minicoy	85·8	86·4	88·1	89·7	88·6	85·6	85·2	85·3	85·3	85·6	86·2	86·0	86·5
Amini Devi	84·2	85·3	88·0	90·4	90·1	86·1	85·0	85·3	85·0	85·2	85·0	84·9	86·2
Perim	82·7	83·5	85·3	88·7	92·5	95·2	96·4	96·1	94·8	91·1	86·9	84·3	89·8
Aden	80·6	81·7	84·4	89·1	93·3	94·7	93·1	91·5	93·6	90·2	84·9	81·8	88·2
Muscat	72·2	72·8	76·6	85·8	91·5	93·8	91·4	87·9	87·2	85·8	80·0	75·4	83·4
Jask	73·8	74·9	78·7	87·2	92·4	95·8	95·8	94·5	93·5	90·7	83·2	78·0	86·5
Bushire	64·1	65·7	72·3	81·6	89·1	91·9	95·3	97·0	94·3	87·8	78·1	69·2	82·2
Ispahan	46·5	54·3	61·0	73·1	84·1	94·4	98·4	95·5	90·4	77·4	61·9	52·3	74·1
Teheran	42·3	52·1	57·2	71·4	82·9	94·4	98·4	96·7	90·7	77·5	61·4	51·3	73·0
Kalat	52·4	56·2	64·6	76·1	85·4	92·2	93·1	90·4	85·2	73·7	66·9	58·1	74·5
Kabul	45·0	48·5	57·1	71·4	82·6	89·3	92·4	92·4	87·3	75·2	67·6	54·9	72·0
Gilgit	45·2	51·3	61·7	72·7	85·4	94·6	96·6	94·2	86·7	73·9	62·0	49·2	72·8
Kashgar	32·4	45·1	56·2	71·6	80·8	89·9	91·5	88·1	81·6	68·7	52·0	36·6	66·2
Baghdad	60·1	64·7	72·3	81·6	91·8	101·8	107·3	108·4	101·9	92·8	74·7	63·4	85·1
Zanzibar	86·1	87·0	86·3	84·7	82·4	81·5	80·2	80·8	82·0	83·2	83·7	85·8	83·6

TABLE X.—*Average monthly and annual means of minimum temperatures of 170 stations in India, etc.*

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Mergui	66·9	69·1	71·9	73·7	73·8	73·1	72·5	72·6	72·2	72·1	69·7	66·7	71·2
Tavoy	64·2	66·8	70·2	74·2	75·2	74·7	74·1	73·8	73·7	73·3	68·5	64·8	71·1
Moulmein	65·2	67·7	72·7	76·4	75·8	74·8	74·2	74·1	74·5	74·7	71·1	66·9	72·3
Rangoon	64·2	65·9	71·1	76·2	77·3	76·5	75·8	75·7	75·9	75·6	72·3	67·3	72·8
Bassein	61·7	64·9	70·5	75·5	77·0	76·3	75·8	75·7	75·8	75·2	71·5	65·1	72·1
Diamond Island	71·0	72·3	75·0	78·3	78·8	76·4	75·6	75·6	75·8	76·7	75·2	72·2	75·2
Akyab	59·3	61·5	68·9	76·0	78·2	78·1	77·5	77·3	78·0	76·7	71·4	64·0	72·2
Toungoo	57·6	61·1	68·5	76·0	76·7	75·5	75·1	75·0	75·6	74·8	70·0	62·1	70·7
Thayetmyo	53·5	56·9	66·5	75·8	77·7	76·8	76·3	76·1	76·0	74·1	67·3	58·3	69·6
Taunggyi	42·2	46·5	53·5	60·4	63·1	64·2	63·8	63·7	62·9	59·0	51·5	46·5	56·4
Lashio	45·0	48·7	55·7	62·9	66·8	69·3	69·3	69·1	67·8	63·5	54·3	47·9	60·0
Bhamo	48·5	53·1	60·1	67·6	72·7	74·9	75·1	75·4	74·5	69·6	59·2	50·7	65·1
Kindat	52·4	54·1	59·8	67·4	74·3	76·3	76·7	76·3	75·3	72·0	64·3	56·1	67·1
Minbu	56·1	61·2	69·3	76·9	77·7	77·8	77·2	77·0	76·9	75·0	68·2	60·0	71·1

TABLE X.—*Average monthly and annual means of minimum temperatures of 170 stations in India, etc.*—contd.

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Yamethin	54·6	60·6	68·1	76·1	76·2	75·3	74·6	74·3	74·8	73·8	67·0	57·2	69·4
Mandalay	56·0	60·1	67·9	77·8	79·0	78·5	78·4	77·6	76·9	74·8	67·2	59·3	71·1
Chittagong	55·3	59·0	67·6	73·7	75·4	76·6	76·6	76·1	76·3	73·4	65·8	58·0	69·5
Silchar	52·3	55·6	63·2	69·2	72·5	76·2	77·2	76·8	76·4	72·3	63·6	55·0	67·5
Barisal	54·4	59·7	69·2	75·4	77·4	78·2	78·6	78·2	78·3	74·6	65·0	56·1	70·4
Narayanganj	55·2	58·6	68·2	74·3	75·8	78·3	79·2	79·0	78·9	75·3	66·0	57·3	70·5
Mymensingh	52·5	55·6	64·4	72·2	73·8	76·9	78·3	78·1	77·5	73·2	63·7	54·6	68·4
Saugor Island	59·2	65·5	75·0	79·9	81·0	81·7	80·6	79·8	79·7	76·2	67·1	59·1	73·7
Calcutta	55·3	60·4	69·5	75·7	77·4	78·5	78·5	78·3	78·0	74·3	64·5	56·0	70·5
Jessore	53·0	57·3	68·2	75·1	76·8	78·8	79·0	78·7	78·5	74·6	64·0	54·9	69·9
Berhampore	53·4	56·5	65·7	74·6	76·6	78·5	78·8	78·7	78·5	74·3	64·0	55·3	69·6
Bogra	51·9	54·5	63·9	71·9	74·5	77·2	78·5	78·4	77·5	72·7	62·4	54·0	68·1
Sibsagar	49·5	53·3	60·0	66·5	71·7	76·4	77·9	77·7	76·2	70·8	59·6	50·7	65·9
Dhubri	53·1	56·0	63·4	70·7	73·2	76·4	78·3	78·3	77·0	72·8	63·5	55·1	68·2
Burdwan	54·9	58·6	68·4	75·7	77·8	79·3	79·4	79·1	78·9	74·6	64·3	56·0	70·6
Patna	50·2	53·6	64·0	73·5	77·7	80·0	79·8	79·5	79·1	72·5	60·5	51·6	68·5
Gaya	51·6	56·2	66·1	74·9	79·5	80·2	78·8	78·4	77·8	71·0	59·7	51·5	68·8
Benares	48·2	52·0	61·8	71·9	78·9	81·9	79·6	78·8	77·4	68·3	56·1	48·2	66·9
Darjeeling	34·8	35·6	42·3	48·9	52·6	56·2	57·7	57·2	55·5	49·8	42·4	36·6	47·5
Jalpaiguri	50·8	52·8	59·7	68·2	72·3	75·2	76·8	76·7	75·3	69·8	60·7	52·9	66·0
Dinajpur	49·4	53·1	61·3	70·7	74·3	77·5	78·9	78·6	77·4	72·0	61·0	51·4	67·1
Purnea	48·3	51·4	60·4	70·0	74·2	77·3	78·7	78·4	77·4	71·2	59·2	49·7	66·4
Darbhanga	52·1	54·4	62·9	71·9	76·3	79·2	79·8	79·3	78·8	73·1	62·0	53·7	68·6
Gorakhpur	49·2	52·6	62·5	72·4	77·3	79·7	79·4	78·8	77·7	70·0	58·3	50·4	67·4
Bahraich	47·1	50·7	58·8	69·7	77·9	79·2	78·8	78·0	76·2	67·2	56·6	48·0	65·7
Bareilly	46·1	49·7	59·0	68·9	76·4	79·8	78·7	78·0	75·8	65·3	52·8	46·0	64·7
Roorkee	44·4	47·7	56·1	66·5	74·6	78·6	78·2	77·0	73·3	61·3	49·8	43·5	62·6
Umballa	43·3	47·8	57·1	66·2	76·9	80·2	78·8	78·1	73·9	60·8	50·9	43·5	63·1
Ludhiana	44·3	47·5	57·5	67·2	75·4	80·7	80·3	79·0	74·8	63·0	50·9	44·0	63·7
Sialkot	42·8	46·1	55·6	66·3	74·8	80·5	79·5	77·7	73·8	61·9	49·9	42·5	62·6
Rawalpindi	37·9	41·4	50·7	59·9	68·6	75·3	76·7	75·2	68·9	55·8	43·3	37·1	57·6
Ranikhet	40·0	40·8	49·1	57·1	60·5	63·0	63·0	62·2	60·0	54·2	47·2	42·6	53·3
Dehra Dun	44·8	47·0	55·0	64·3	70·5	74·4	74·1	73·1	70·0	60·6	51·8	45·6	60.9
Mussooree	37·6	37·7	45·1	54·0	58·2	60·7	60·6	59·9	57·5	51·5	45·4	40·2	50·7
Chakrata	36·2	36·1	44·3	52·1	56·6	60·0	60·2	59·5	57·0	50·9	43·9	39·3	49·7
Simla	34·5	35·6	46·0	52·2	58·6	61·0	60·1	59·5	56·4	51·0	45·0	39·1	49·9

TABLE X.—*Average monthly and annual means of minimum temperatures of 170 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Murree	35·2	34·5	43·3	52·3	59·4	64·5	62·5	61·0	58·8	53·3	45·6	39·0	50·8
Srinagar	26·4	27·3	37·1	45·4	52·1	58·8	64·6	62·9	53·0	39·8	31·6	28·5	44·0
Leh	8·8	9·8	21·1	30·9	36·8	44·6	50·6	49·8	41·5	29·9	20·5	13·2	29·8
Kailang	14·5	13·8	21·6	31·2	38·1	45·4	51·1	50·3	42·0	31·5	25·5	18·8	32·0
Allahabad	47·9	51·8	62·1	72·4	79·5	82·5	79·4	78·6	76·9	67·6	55·1	47·8	66·8
Lucknow	46·7	50·9	60·3	70·9	77·8	81·3	79·3	78·6	76·5	65·5	52·8	46·2	65·6
Cawnpore	47·1	51·3	60·4	72·3	80·6	82·0	79·6	78·3	76·6	65·8	55·0	47·6	66·4
Mainpuri	46·2	50·4	58·7	70·5	79·8	81·5	79·5	78·4	75·9	64·6	54·2	47·3	65·6
Agra	48·6	52·3	62·7	73·7	81·5	84·5	80·4	78·8	76·7	67·6	55·9	48·8	67·6
Meerut	45·0	48·4	57·7	68·1	75·9	80·4	79·4	78·3	74·6	62·4	50·6	44·7	63·8
Delhi	47·9	51·8	62·2	73·5	80·2	83·3	80·7	79·3	77·0	67·9	56·2	48·9	67·4
Lahore	40·7	44·1	54·2	64·3	72·6	79·3	79·4	77·8	72·6	59·1	46·8	40·3	60·9
Cherat	37·9	40·1	47·9	57·9	68·3	73·1	70·7	70·2	65·9	57·2	49·1	42·6	56·7
Peshawar	39·6	42·6	51·9	60·8	70·0	77·3	79·4	77·8	70·1	57·2	45·1	39·0	59·2
Khushab	41·3	46·1	56·8	68·0	77·3	82·4	82·1	80·8	75·8	61·9	49·7	41·9	62·7
Dera Ismail Khan	40·4	44·9	55·5	66·1	74·9	81·2	82·5	81·0	74·9	60·6	47·0	40·1	62·4
Montgomery	42·2	46·4	55·9	68·1	78·4	84·1	83·9	81·6	76·1	62·2	50·9	43·0	64·4
Mooltan	43·3	47·5	58·4	68·6	77·6	83·7	83·7	82·1	77·6	64·4	52·4	44·4	65·3
Sirsa	43·1	46·8	57·2	68·5	77·4	83·1	81·8	80·2	75·7	62·6	49·5	42·7	64·1
Bikaner	49·4	53·5	64·7	75·6	82·6	85·2	82·8	80·6	79·2	71·4	59·4	51·3	69·6
Pachpadra	45·1	48·9	58·3	69·6	77·5	81·1	79·7	77·3	75·2	64·9	54·1	46·3	64·9
Kurrachee	54·5	58·0	66·1	73·1	78·7	82·1	80·6	78·7	76·9	70·9	61·8	55·9	69·8
Hyderabad, Sind	51·1	54·4	64·2	72·3	78·4	81·7	80·8	78·7	76·2	70·0	60·0	52·3	68·3
Jacobabad	43·3	48·5	59·6	69·7	78·2	84·4	84·3	81·4	76·0	62·5	50·8	44·0	65·2
Quetta	29·3	31·7	40·0	46·3	52·2	59·1	64·7	61·1	49·5	38·3	32·1	29·7	44·5
Chaman	34·7	36·7	44·1	58·0	65·9	71·6	75·1	70·3	62·3	50·7	44·8	38·4	54·4
Colombo	72·1	72·9	74·9	76·0	78·4	77·5	77·6	77·5	77·0	75·4	74·1	73·0	75·5
Trivandrum	71·2	72·4	74·7	76·3	76·3	73·6	73·0	73·0	73·1	72·8	72·1	71·7	73·4
Cochin	71·5	73·7	77·0	78·4	77·6	74·7	74·1	74·3	74·5	74·6	74·4	72·9	74·8
Calicut	69·6	72·6	76·1	77·9	77·9	74·7	73·9	74·1	74·4	74·5	73·1	70·5	74·1
Mangalore	69·5	72·3	76·0	78·7	78·8	75·0	74·2	74·0	74·1	74·6	72·8	70·0	74·2
Mercara	56·6	58·8	61·8	64·2	64·9	63·3	62·2	62·0	61·9	62·2	60·1	57·8	61·3
Karwar	65·5	67·3	73·0	77·9	79·7	76·1	75·1	74·6	73·9	73·4	69·4	66·2	72·7
Goa	67·8	70·1	74·2	78·9	80·5	77·8	76·0	75·8	75·5	75·5	72·2	69·3	74·5
Mormugao	68·9	71·2	75·5	80·0	81·1	77·9	76·2	75·8	75·1	75·6	72·8	70·3	75·0
Ratnagiri	66·2	67·3	72·4	77·4	79·6	77·2	75·7	75·2	74·4	74·0	70·0	67·2	73·1

TABLE X.—*Average monthly and annual means of minimum temperatures of 170 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Bombay	67·9	68·7	73·4	77·7	80·7	79·5	77·5	77·0	76·5	76·5	73·3	69·8	74·9
Surat	56·5	59·0	66·0	72·8	78·1	79·3	77·3	76·5	75·5	70·8	62·8	57·7	69·4
Bhavnagar Para	56·1	59·9	66·8	74·9	78·8	80·4	78·8	77·1	75·5	72·2	64·2	58·3	70·3
Veraval	58·8	60·7	64·9	72·5	78·4	81·0	79·2	77·7	76·3	72·3	67·7	62·0	71·0
Rajkot	51·1	54·5	62·4	69·4	75·1	77·6	75·8	74·5	72·4	68·1	59·3	52·9	66·1
Bhuj	54·4	58·1	65·4	71·5	76·7	79·8	78·1	76·2	74·6	70·9	62·7	56·1	68·7
Ahmedabad	57·0	60·3	67·8	75·2	79·5	80·7	78·2	77·1	76·2	72·1	65·7	60·1	70·8
Deesa	51·5	55·1	63·8	71·7	77·5	80·6	77·6	75·6	73·9	66·8	57·7	52·7	67·0
Tinnevelly	71·6	72·7	75·6	78·6	80·7	79·6	79·4	79·1	78·6	76·6	74·6	72·4	76·6
Madura	68·6	69·5	72·8	76·4	77·5	77·1	76·4	75·8	75·3	74·0	72·5	70·5	73·9
Trichinopoly	67·2	68·4	72·8	77·5	78·7	78·4	77·9	76·7	75·7	74·3	72·0	69·4	74·1
Coimbatore	63·9	65·5	69·8	73·4	73·4	71·6	70·7	70·6	70·7	70·6	68·9	66·1	69·6
Salem	63·7	65·5	70·8	75·8	75·9	74·2	73·0	72·5	71·9	71·1	68·5	65·3	70·7
Wellington	45·2	47·1	52·2	55·9	58·0	58·0	57·9	57·1	55·8	54·8	52·0	48·1	53·5
Mysore	59·3	62·9	67·2	70·3	69·6	68·2	66·9	66·5	65·4	67·0	64·1	59·8	65·7
Bangalore	56·8	59·6	64·7	69·2	69·1	66·8	65·8	65·6	65·3	65·2	61·9	58·7	64·1
Hassan	54·1	57·7	62·2	66·4	66·6	66·1	64·9	64·5	64·2	64·3	59·8	55·5	62·2
Chitaldroog	61·1	65·9	70·2	71·8	71·0	69·5	68·4	68·0	67·5	67·8	64·0	60·8	67·2
Cuddapah	64·4	69·1	75·0	80·8	83·5	80·6	78·0	76·8	75·8	74·2	69·3	65·4	74·4
Karnool	58·7	64·8	71·5	78·0	81·0	76·9	74·7	73·7	73·1	71·0	64·0	58·9	70·5
Bellary	60·5	65·4	72·1	77·1	77·5	75·7	74·6	73·6	72·7	71·1	65·6	60·9	70·6
Raichur	63·4	68·2	74·0	79·2	79·5	74·8	73·1	72·5	72·2	72·2	67·3	63·3	71·6
Hyderabad (Deccan)	58·1	63·4	69·6	75·3	78·6	74·4	71·7	71·1	70·8	68·1	62·1	57·3	68·4
Gulbarga	58·5	64·3	70·7	76·1	78·5	73·7	71·8	71·1	70·9	69·0	62·6	57·8	68·8
Belgaum	57·5	59·6	64·2	67·5	68·2	68·1	66·9	66·2	65·3	65·0	61·1	58·1	64·0
Bijapur	58·6	64·2	70·6	74·8	74·7	72·2	70·8	69·9	69·6	67·8	61·0	56·0	67·6
Sholapur	58·2	62·2	69·3	75·5	76·5	73·2	71·7	70·6	70·4	68·1	62·3	57·5	68·0
Poona	54·3	57·1	63·9	69·7	71·9	72·6	70·8	69·5	68·6	66·5	59·3	53·8	64·8
Ahmednagar	50·7	55·1	62·5	69·6	71·8	72·3	70·5	69·0	68·0	64·6	56·2	51·5	63·5
Malegaon	51·9	55·4	63·6	71·8	75·1	75·0	73·3	71·5	70·2	65·8	57·1	51·3	65·2
Buldana	58·5	62·2	70·1	76·8	77·6	73·4	70·6	69·4	69·2	68·0	62·1	57·9	68·0
Chikalda	56·1	59·6	66·7	72·8	73·4	68·6	65·9	65·0	65·2	64·6	59·3	55·4	64·4
Akola	53·4	57·5	66·0	74·8	81·1	77·7	74·3	73·3	72·7	66·2	57·4	51·4	67·2
Amraoti	57·8	61·7	69·2	76·3	80·0	76·8	73·5	72·6	72·1	68·2	61·6	56·8	68·9
Khandwa	51·8	55·9	64·9	75·3	80·9	78·7	75·3	74·1	73·2	66·3	56·2	50·2	66·9
Nagpur	55·6	60·0	67·8	76·2	81·9	78·5	75·1	74·6	73·8	68·4	60·3	54·3	68·9

TABLE X.—*Average monthly and annual means of minimum temperatures of 170 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Indore	49·8	52·1	60·4	69·7	75·9	75·3	72·6	71·3	70·1	63·6	54·1	49·3	63·7
Neemuch	48·7	52·1	61·5	71·3	77·1	77·3	74·1	72·5	70·9	64·5	54·9	49·5	64·5
Mount Abu	51·2	53·6	61·5	69·1	71·1	68·1	65·7	64·2	64·6	64·3	57·9	52·9	62·0
Ajmer	45·5	49·4	59·7	71·4	79·3	80·8	77·3	75·3	73·6	63·2	51·0	45·6	64·3
Sambhar	45·4	49·7	58·8	71·1	80·2	82·4	79·2	77·2	75·1	63·6	52·9	46·3	65·2
Jaipur	48·0	51·9	60·8	71·1	78·2	81·1	78·2	76·1	73·6	64·0	55·2	49·1	65·6
Saugor	51·8	55·4	64·5	72·8	78·5	77·6	73·9	72·8	71·5	65·7	57·2	51·9	66·1
Sutna	47·6	52·3	61·2	71·6	79·3	81·1	77·0	75·9	74·6	65·7	53·9	47·1	65·6
Nowgong	47·0	51·1	60·8	71·4	79·8	82·4	78·1	76·7	75·0	65·1	53·2	46·4	65·6
Jhansi	51·1	55·4	66·3	76·7	83·6	84·0	78·8	77·1	75·8	69·1	58·6	51·9	69·0
Hoshangabad	52·3	56·0	64·6	73·8	80·3	79·0	75·2	73·8	73·3	66·9	57·3	51·7	67·0
Pachmarhi	47·5	51·5	60·4	69·6	75·1	72·0	68·0	67·1	66·3	59·7	51·3	45·7	61·2
Jubbulpur	48·0	52·4	60·8	70·6	78·9	78·4	74·6	73·9	72·8	64·0	53·1	46·0	64·5
Seoni	51·3	55·4	63·5	71·8	77·1	75·5	72·6	71·6	70·6	64·2	55·4	49·8	64·9
Chanda	54·1	59·2	67·0	76·4	81·9	79·6	75·9	75·0	74·5	68·5	59·3	51·8	68·6
Raipur	55·4	60·5	68·6	76·9	82·0	78·4	74·9	74·9	74·8	69·7	60·7	54·1	69·2
Sambalpur	54·8	59·9	67·3	75·6	81·6	80·7	77·3	77·2	77·3	71·9	62·3	54·0	70·0
Chaibassa	53·1	58·3	67·0	76·0	80·0	78·8	77·5	77·0	76·1	70·3	60·4	52·4	68·9
Ranchi	50·9	54·8	63·3	72·1	76·0	74·6	72·9	72·6	71·7	65·6	57·6	50·6	65·2
Hazaribagh	50·5	54·5	63·8	72·5	75·5	75·8	73·7	73·2	72·2	66·8	57·9	50·5	65·6
Balasore	55·7	61·9	69·6	76·0	78·7	78·6	78·4	78·0	77·8	73·1	63·0	55·0	70·5
False Point	58·3	64·8	72·2	77·6	79·7	80·1	78·6	78·2	78·1	74·6	65·5	57·3	72·1
Cuttack	59·8	65·7	72·5	78·0	80·1	80·1	78·6	78·3	78·1	74·6	66·1	58·7	72·6
Gopalpur	61·2	67·9	73·2	77·5	80·5	80·6	79·2	78·8	78·3	74·2	66·8	60·8	73·3
Waltair	67·9	71·7	75·5	78·6	81·3	80·7	79·3	78·5	78·1	76·3	72·4	68·6	75·7
Cocanada	65·3	69·6	73·5	78·3	82·8	81·0	79·3	78·5	78·1	75·8	70·5	65·7	74·9
Masulipatam	65·3	68·3	72·3	77·5	81·6	80·2	78·1	77·6	77·4	76·0	71·3	66·6	74·4
Nellore	66·3	69·1	72·4	77·4	82·0	82·2	79·6	78·7	77·7	75·8	71·6	68·2	75·1
Madras	67·4	68·0	72·2	77·1	81·1	80·7	78·7	77·3	77·0	75·1	72·3	69·7	74·7
Cuddalore	67·3	68·9	72·2	76·8	80·1	79·4	77·7	76·3	75·7	74·7	71·6	69·1	74·2
Negapatam	70·8	72·1	75·5	79·0	80·2	79·2	78·2	77·3	76·5	75·9	74·1	72·1	75·9
Pamban	74·8	74·9	76·1	79·0	81·4	80·3	79·5	78·6	78·3	77·3	76·1	74·6	77·6
Trincomalee	74·6	75·1	76·0	77·6	78·8	78·4	77·6	77·0	76·6	75·5	74·7	74·5	76·4
Port Blair	75·6	74·9	76·6	78·8	78·4	77·8	77·4	77·2	76·5	77·3	77·2	76·7	77·0
Amini Devi	73·9	76·2	78·1	80·0	80·6	78·0	77·5	77·4	77·2	76·5	75·5	73·8	77·1
Minicoy	73·5	74·2	75·8	78·8	81·9	82·7	83·4	83·4	83·1	80·5	77·1	74·6	79·1

TABLE X.—*Average monthly and annual means of minimum temperatures of 170 stations in India, etc*—concld.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Aden	72·8	73·4	75·2	77·3	81·0	83·7	82·3	79·6	82·2	77·7	74·7	73·0	77·7
Muscat	67·2	67·8	72·0	80·5	85·9	88·1	87·5	84·3	83·4	81·1	75·3	70·7	78·7
Jask	60·3	61·8	66·1	73·3	78·3	83·1	84·8	84·0	80·9	75·5	68·7	63·8	73·4
Bushire	51·7	52·8	58·8	66·7	75·3	80·5	84·3	84·0	79·1	71·2	62·3	55·4	68·5
Ispahan	23·1	29·2	36·2	45·7	54·1	61·9	66·3	61·5	55·1	44·4	35·9	29·2	45·2
Teheran	26·2	32·9	38·4	49·9	59·4	67·1	72·1	70·7	64·9	54·0	42·2	33·9	51·0
Kalat	20·3	24·9	32·2	37·3	43·3	48·9	53·1	48·1	39·5	29·6	26·5	24·1	35·7
Kabul	17·8	23·3	35·6	45·1	53·2	58·6	61·6	59·5	51·0	41·4	34·9	27·7	42·5
Gilgit	31·6	36·6	45·3	54·0	61·8	70·0	73·3	72·1	64·5	53·1	42·8	34·5	53·3
Kashgar	12·5	22·5	36·1	49·0	58·1	65·6	68·6	65·3	56·9	42·2	28·8	16·4	43·5
Baghdad	38·3	41·8	48·2	56·9	67·9	75·4	79·4	78·8	71·8	62·3	49·5	42·9	59·4
Zanzibar	79·6	80·3	79·3	77·6	75·6	74·2	72·7	72·7	72·4	75·3	77·1	79·5	76·4

TABLE XI.—*Average monthly and annual diurnal range of temperature of 170 stations in India, etc.*

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Mergui	21·2	20·5	19·3	18·2	15·3	12·6	12·0	11·6	12·2	15·1	17·7	20·6	16·4
Tavoy	25·3	24·3	23·1	19·8	13·2	10·1	9·2	9·0	10·3	14·7	19·4	22·9	16·8
Moulmein	23·2	23·8	21·4	18·2	13·5	9·8	8·8	8·9	10·3	13·7	17·3	20·3	15·8
Rangoon	24·9	26·9	25·5	22·4	14·6	10·0	9·5	9·4	9·8	12·1	15·3	20·0	16·7
Bassein	24·0	25·1	23·9	20·7	14·5	10·0	8·9	8·8	9·7	12·2	14·7	19·3	16·0
Diamond Island	13·0	11·9	10·6	10·4	9·8	9·2	8·7	8·7	9·0	9·8	10·3	11·7	10·3
Akyab	22·1	23·3	20·2	15·8	12·4	7·9	7·2	7·1	8·6	11·1	13·7	17·7	14·0
Toungoo	27·7	29·8	29·3	24·4	19·0	13·6	11·6	11·7	13·4	15·5	17·3	21·9	19·6
Thayetmyo	32·4	35·7	33·3	27·2	20·7	14·6	12·6	12·8	13·9	16·3	20·7	26·3	22·2
Taunggyi	31·1	29·5	29·4	25·3	16·8	13·0	12·0	12·1	14·3	18·5	22·2	24·1	20·7
Lashio	30·1	30·3	30·5	28·0	21·5	16·2	14·3	14·0	17·0	20·0	22·8	25·8	22·6
Bhamo	28·7	29·1	28·9	26·3	21·0	15·6	12·7	12·7	15·6	18·9	22·6	25·6	21·5
Kindat	23·8	27·8	30·4	29·4	20·8	13·7	11·9	11·3	12·9	14·9	17·1	19·4	19·4
Minbu	29·6	30·4	30·0	26·5	19·8	15·2	14·1	13·6	14·0	16·3	20·4	24·0	21·2
Yamethin	32·6	31·9	31·0	26·2	19·1	16·6	15·4	15·5	16·9	18·7	21·8	27·8	22·8
Mandalay	28·1	29·8	29·8	24·5	20·0	16·5	15·8	15·7	15·9	17·0	19·5	23·0	21·3

TABLE XI.—*Average monthly and annual diurnal range of temperature of 170 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Chittagong . .	23·0	23·3	19·1	15·2	13·2	10·0	9·1	9·4	10·5	13·1	17·2	20·1	15·3
Silchar . . .	25·5	25·1	22·8	19·3	16·2	13·2	13·0	12·7	13·4	16·4	21·2	24·7	18·7
Barisal . . .	23·2	22·0	20·1	16·8	14·5	10·5	8·7	8·6	10·2	13·0	17·8	21·5	15·6
Narayanganj . .	22·7	23·6	21·8	18·9	15·5	10·7	9·1	8·5	9·6	12·6	17·5	20·7	15·9
Mymensingh . .	22·5	22·8	22·5	18·6	14·8	10·3	8·8	8·8	9·6	13·0	17·8	21·6	15·9
Saugor Island .	17·4	15·7	12·2	10·9	10·8	8·7	7·2	7·4	8·5	10·7	14·6	17·2	11·8
Calcutta . .	21·8	21·6	21·3	19·9	17·1	12·6	9·5	8·8	9·7	12·4	16·9	20·5	16·0
Jessore . . .	24·9	25·8	24·2	22·1	18·0	12·7	10·2	9·9	10·9	13·8	19·1	22·7	17·9
Berhampore . .	23·4	25·5	27·0	25·4	19·9	13·9	10·6	9·9	10·4	13·2	17·9	21·2	18·2
Bogra . . .	24·2	25·7	26·3	24·3	18·0	12·6	10·6	9·9	10·9	14·5	19·6	22·9	18·3
Sibsagar . .	20·6	19·8	19·1	16·0	14·2	12·9	12·1	11·5	11·9	14·0	18·7	20·8	15·9
Dhubri . . .	20·9	22·0	23·1	18·0	12·7	9·3	7·6	7·7	8·1	11·7	16·3	19·2	14·7
Burdwan . .	23·9	25·2	25·3	24·9	20·6	14·5	10·8	10·1	10·8	14·1	18·9	22·2	18·4
Patna . . .	22·8	24·6	26·9	27·1	22·5	16·4	10·3	9·6	10·8	15·7	21·2	22·6	19·2
Gaya . . .	24·3	25·1	27·2	28·5	25·4	19·4	12·6	11·6	13·2	18·6	23·5	24·7	21·2
Benares . . .	26·1	28·4	31·0	31·2	26·6	18·2	11·6	10·7	13·6	21·6	26·0	26·8	22·7
Darjeeling . .	12·0	12·3	14·2	13·3	11·2	9·0	8·3	8·3	8·6	10·7	11·8	12·1	11·0
Jalpaiguri . .	21·2	23·7	25·1	21·3	16·0	12·7	11·4	11·4	11·9	16·0	20·6	22·3	17·7
Dinajpur . .	26·3	26·3	27·8	23·9	17·4	12·0	10·2	10·2	10·8	15·4	21·4	25·5	19·0
Purnea . . .	26·4	27·7	29·5	27·0	20·6	14·8	11·3	10·8	11·5	16·2	22·7	26·1	20·3
Darbhanga . .	20·6	22·4	25·0	24·2	19·3	13·2	9·7	9·2	9·5	13·6	19·3	20·8	17·3
Gorakhpur . .	23·7	25·4	28·0	28·0	23·7	17·2	11·7	11·0	12·8	18·7	23·3	23·8	20·6
Bahraich . .	25·3	26·0	30·2	29·9	25·1	18·2	12·5	11·9	14·8	22·9	25·2	27·0	22·5
Bareilly . . .	24·5	25·3	28·5	30·4	26·8	19·9	12·9	11·9	14·7	24·2	28·3	26·8	22·9
Roorkee . .	25·2	25·4	29·3	31·7	28·2	21·8	13·9	13·7	18·0	28·0	30·7	28·9	24·6
Umballa . .	24·5	23·7	26·8	31·5	28·3	21·2	14·5	14·7	19·8	32·4	31·4	28·6	24·8
Ludhiana . .	22·9	23·7	26·9	30·2	29·0	24·1	16·7	16·0	20·1	28·9	29·7	27·0	24·6
Sialkot . . .	23·4	23·5	26·1	28·9	28·3	25·0	18·1	17·0	21·9	30·4	31·0	27·6	25·1
Rawalpindi . .	25·2	23·4	25·8	28·5	29·5	27·5	20·6	18·7	24·7	32·4	33·9	30·5	26·7
Ranikhet . .	14·5	14·8	16·2	17·7	17·7	14·9	10·9	10·2	12·6	15·0	15·3	14·9	14·6
Dehra Dun . .	21·4	22·2	24·7	26·3	24·5	18·6	11·4	10·9	14·3	21·7	23·2	23·1	20·2
Mussooree . .	11·3	12·4	15·5	18·4	19·8	16·0	10·4	9·2	11·1	13·4	12·2	11·2	13·4
Chakrata . .	14·4	15·1	17·4	18·2	17·7	14·3	9·7	9·3	11·7	15·3	16·1	15·6	14·5
Simla . . .	10·0	10·3	10·4	13·0	14·5	13·4	9·1	7·6	9·7	11·4	11·1	10·3	10·9

TABLE XI.—*Average monthly and annual diurnal range of temperature of 170 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Murree . . .	12·0	13·5	15·0	16·5	17·5	17·2	14·5	13·4	15·0	16·0	15·3	13·8	15·0
Srinagar . .	12·6	15·0	18·3	22·8	24·8	24·3	20·3	21·0	26·4	29·9	28·7	19·3	21·9
Leh . . .	21·0	21·6	22·0	26·2	27·2	28·5	27·6	27·6	28·8	28·7	27·1	21·5	25·6
Kailang . .	19·8	19·7	19·8	21·8	23·9	26·4	22·8	23·4	27·2	28·9	26·1	21·2	23·4
Allahabad . .	26·5	28·4	30·9	31·4	27·5	19·2	12·2	11·2	14·5	22·9	28·0	27·9	23·4
Lucknow . .	27·3	27·9	31·2	31·5	27·2	19·2	12·9	11·7	15·6	25·7	30·5	29·5	24·2
Cawnpore . .	26·8	27·5	30·4	29·9	25·6	19·1	12·9	11·6	15·8	25·7	29·1	28·7	23·6
Mainpuri . .	25·5	26·4	31·0	32·0	27·7	19·7	13·2	12·4	17·2	28·3	30·0	27·8	24·3
Agra . . .	24·9	26·3	28·4	28·9	25·7	19·8	12·9	12·3	16·4	25·7	28·5	27·3	23·1
Meerut . . .	25·4	26·1	28·9	30·4	27·1	20·2	13·4	12·6	17·2	28·1	30·7	28·2	24·0
Delhi . . .	22·8	23·0	25·2	26·2	24·5	19·9	13·3	12·5	16·0	24·2	26·7	24·8	21·6
Lahore . . .	28·3	28·6	30·9	33·9	33·1	28·1	21·2	20·4	26·3	36·0	36·8	32·9	29·7
Cherat . . .	11·3	12·0	13·6	17·6	21·3	21·2	17·9	16·7	19·9	21·4	18·1	12·9	17·0
Peshawar . .	23·9	23·5	24·2	26·1	28·6	28·6	23·5	21·4	25·9	31·2	32·0	28·5	26·5
Khushab . .	26·3	22·6	23·8	27·3	27·6	24·7	20·5	19·4	23·8	31·9	33·1	29·8	25·9
D. I. Khan . .	28·7	27·0	28·0	28·4	29·3	26·8	20·9	20·1	25·6	33·4	35·1	32·4	28·0
Montgomery . .	26·3	26·4	29·8	32·0	29·9	25·9	20·8	20·4	25·6	34·4	33·3	29·9	27·9
Mooltan . .	26·9	26·2	28·1	30·4	29·0	24·1	20·1	18·6	22·7	31·1	32·0	29·5	26·6
Sirsa . . .	27·9	28·4	31·4	32·6	29·8	23·6	18·7	18·2	23·2	33·5	35·4	32·2	27·9
Bikaner . . .	22·4	22·4	24·6	25·7	24·5	21·3	17·6	16·5	19·3	24·5	25·3	24·0	22·4
Pachpadra . .	33·3	34·3	36·3	36·7	30·3	24·6	18·0	17·5	22·0	33·8	36·6	35·2	29·8
Kurrachee . .	22·4	21·7	20·0	17·5	14·2	11·9	10·0	9·5	11·9	20·7	25·6	24·4	17·5
Hyderabad (Sind) .	25·7	26·4	28·9	30·4	28·5	22·5	18·1	16·8	21·3	28·0	28·0	26·8	25·2
Jacobabad . .	30·3	29·4	31·5	33·4	33·4	28·3	23·5	22·4	27·5	36·1	36·0	32·7	30·4
Quetta . . .	22·0	21·4	24·5	27·9	31·3	31·5	28·0	29·4	35·9	36·3	32·7	26·9	29·0
Chaman . .	18·7	20·3	23·2	23·6	28·4	28·6	26·4	27·7	29·3	28·0	24·6	20·6	24·9
Colombo . .	15·4	15·4	14·5	12·9	9·6	8·2	7·8	8·1	9·0	10·3	12·3	13·9	11·5
Trivandrum . .	12·2	12·6	12·4	11·2	10·0	9·3	9·1	9·3	9·9	9·9	10·5	11·3	10·6
Cochin . . .	17·6	16·2	14·2	13·1	12·0	10·3	9·4	9·4	10·1	11·6	13·1	15·6	12·7
Calicut . . .	18·0	16·1	14·2	13·4	12·5	9·9	8·6	8·7	9·9	11·7	14·3	17·1	12·9
Mangalore . .	19·0	15·8	13·4	12·4	11·5	10·0	8·8	8·8	9·2	11·1	15·5	19·5	12·9
Mercara . .	21·1	22·4	22.8	19·7	15·4	9·6	6·7	7·7	10·3	13·6	15·8	17·4	15·2
Karwar . . .	21·4	19·0	14·8	12·1	10·1	9·2	7·9	7·9	8·8	12·0	18·0	21·5	13·5
Goa . . .	19·1	16·5	13·1	10·3	9·5	7·4	6·4	6·1	7·1	9·8	15·2	18·1	11·5

TABLE XI.—*Average monthly and annual diurnal range of temperature of 170 stations in India, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Mormugao . .	16·9	13·7	11·4	10·1	8·9	9·1	7·5	7·6	8·4	10·4	14·2	16·0	11·2
Ratnagiri . .	21·5	19·1	15·4	12·7	11·5	9·4	8·2	8·5	9·8	14·2	20·5	22·3	14·4
Bombay . . .	14·7	13·9	12·3	10·8	10·0	8·1	6·9	7·0	8·0	11·0	13·6	14·7	10·9
Surat . . .	30·4	30·7	30·6	27·3	20·1	14·4	10·0	10·5	13·0	22·2	27·8	29·7	22·2
Bhavnagar Para .	26·4	26·0	26·9	25·9	24·1	17·9	14·6	15·7	17·5	23·9	25·7	26·7	22·6
Veraval . . .	22·7	20·8	21·4	15·2	8·3	5·4	4·5	5·0	7·5	17·0	20·6	22·1	14·2
Rajkot . . .	32·9	32·7	33·2	33·4	30·3	22·2	14·8	14·4	19·0	27·2	31·1	32·5	27·0
Bhuj . . .	26·0	26·2	28·5	29·5	24·6	17·8	11·9	12·5	17·5	25·2	26·5	26·1	22·7
Ahmedabad . .	27·0	27·2	29·2	30·2	27·6	19·0	13·2	13·0	15·9	24·6	25·7	25·8	23·2
Deesa . . .	31·6	31·4	32·3	32·5	29·2	21·3	14·1	13·3	18·9	30·1	33·8	32·7	26·8
Tinnevelly . .	16·1	19·3	20·9	19·4	19·7	17·5	16·4	17·6	19·2	17·1	14·1	13·8	17·6
Madura . . .	18·9	22·5	23·9	22·9	22·6	21·1	20·8	20·8	20·0	17·3	14·8	15·5	20·1
Trichinopoly . .	20·2	23·9	25·1	23·6	23·1	20·6	19·6	19·9	19·8	16·7	15·1	15·8	20·3
Coimbatore . .	22·9	26·5	26·5	24·0	21·6	18·3	17·3	18·1	18·9	17·7	17·3	19·0	20·7
Salem . . .	24·6	28·1	27·8	24·9	23·3	21·0	20·1	19·7	19·4	18·5	18·8	21·1	22·3
Wellington . .	22·4	23·7	21·9	20·0	18·1	14·2	13·2	14·3	15·5	14·3	15·3	18·1	17·6
Mysore . . .	24·7	25·9	26·3	23·7	22·5	16·4	15·8	17·5	18·1	17·1	18·4	21·8	20·7
Bangalore . .	23·4	26·2	26·0	24·0	22·2	17·9	16·1	16·2	16·6	16·2	17·4	19·3	20·1
Hassan . .	27·4	28·7	28.8	24·7	21·0	13·4	11·9	13·8	15·6	17·0	20·0	23·9	20·5
Chitaldroog . .	22·7	23·4	24·2	24·0	22·7	16·3	13·5	14·1	16·0	16·8	18·1	20·5	19·3
Cuddapah . .	24·0	26·0	26·7	24·4	22·8	19·7	17·3	16·9	16·7	17·7	19·2	21·4	21·1
Kurnool . .	30·0	29·7	29·4	25·6	23·8	19·8	16·7	16·1	16·1	19·9	24·1	28·0	23·3
Bellary . . .	27·1	28·8	28·2	26·3	24·9	18·8	16·3	17·2	17·9	18·6	21·1	24·7	22·5
Raichur . .	23·3	24·6	24·8	22·9	23·9	19·9	17·0	16·0	15·5	16·8	18·8	21·6	20·5
Hyderabad . .	26·4	27·9	28·3	26·7	25·2	19·9	15·4	15·0	15·9	19·5	21·7	25·1	22·2
Gulbarga . .	28·2	28·3	28·5	27·1	26·3	21·0	18·0	17·2	16·6	21·0	24·4	27·2	23·6
Belgaum . .	26·0	29·0	29·7	28·5	24·8	12·7	8·8	9·9	13·6	18·1	21·0	23·5	20·4
Bijapur . .	26·6	26·2	25·8	25·0	25·6	18·3	15·4	16·2	16·3	20·4	24·6	28·0	22·3
Sholapur . .	29·5	31·5	31·1	29·3	28·3	21·6	17·8	18·2	18·0	21·8	25·2	28·0	25·0
Poona . . .	31·6	34·2	33·8	31·9	27·3	16·6	11·5	12·4	15·8	22·0	27·0	30·5	24·6
Ahmednagar .	33·3	33·0	31·3	29·3	27·6	18·1	14·7	15·8	17·2	23·5	29·1	31·5	25·4
Malegaon . .	33·7	34·5	33·7	31·4	28·9	19·9	14·1	15·1	17·7	24·8	30·0	32·9	26·4
Buldana . .	22·8	24·0	23·6	23·2	23·5	18·4	13·3	12·7	13·9	17·5	19·9	21·5	19·5
Chikalda . .	17·1	18·2	19·1	19·4	20·4	15·2	8·3	7·7	9·7	13·2	15·4	16·8	15·0

TABLE XI.—*Average monthly and annual diurnal range of temperature of 170 stations in India, etc.*—contd.

STATION.	January.	February	March.	April.	May.	June.	July.	August.	September.	October.	November	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Akola . . .	31·8	33·2	33·2	31·2	26·6	20·5	14·7	13·9	16·4	25·1	29·6	32·2	25·7
Amraoti . .	26·8	28·4	28·9	28·7	27·7	20·4	13·8	13·5	16·3	22·4	24·7	25·9	23·1
Khandwa . .	32·1	32·9	32·7	29·5	25·6	18·9	12·3	11·4	14·9	24·8	30·6	32·8	24·9
Nagpur . . .	27·9	29·3	30·5	29·3	27·4	19·8	12·7	12·4	15·5	21·7	24·7	27·0	23·2
Indore . . .	29·6	31·2	32·1	30·9	26·9	19·1	11·9	11·6	15·3	24·3	29·1	30·0	24·3
Neemuch . .	28·9	29·1	29·9	29·6	26·9	21·0	13·3	12·5	17·0	25·9	29·6	28·9	24·4
Mount Abu . .	15·4	15·2	16·2	16·6	17·1	15·2	8·9	7·8	10·7	14·5	15·6	15·7	14·1
Ajmer . . .	28·6	28·4	29·4	27·9	24·5	19·7	14·0	12·9	17·2	28·8	32·9	30·7	24·6
Sambhar . .	28·2	27·7	29·9	29·3	24·9	19·9	15·1	14·1	18·6	29·7	31·6	29·7	24·9
Jaipur . . .	26·6	26·7	28·9	30·6	28·4	21·4	15·3	15·5	20·6	30·3	30·6	28·6	25·3
Saugor . . .	25·1	25·9	27·6	28·7	26·6	20·2	11·3	10·8	15·1	21·9	24·8	24·8	21·9
Sutna . . .	27·5	27·3	30·1	30·1	26·2	17·6	10·4	10·0	13·4	22·2	27·2	28·0	22·5
Nowgong . .	28·1	29·2	31·6	32·0	27·6	19·2	11·8	11·2	15·4	25·2	29·1	28·8	24·1
Jhansi . . .	25·3	25·8	26·8	27·5	24·7	18·8	12·4	11·8	15·9	23·8	26·7	26·5	22·2
Hoshangabad .	28·0	29·4	31·1	31·0	27·3	19·1	11·5	11·2	14·8	22·7	27·0	27·6	23·4
Pachmarhi . .	23·8	24·0	24·0	22·9	20·0	13·9	7·8	7·6	10·9	18·4	22·0	24·6	18·3
Jubbulpore . .	29·6	30·0	32·0	31·4	26·7	18·5	11·3	10·8	14·6	23·4	28·8	30·9	24·0
Seoni . . .	27·9	28·4	29·7	29·3	26·8	18·7	11·2	11·5	15·0	22·4	25·9	27·9	22·9
Chanda . . .	31·3	32·6	32·7	30·1	27·6	18·9	12·7	12·6	14·6	21·6	25·9	30·7	24·3
Raipur . . .	26·2	26·9	27·9	27·4	25·4	18·8	11·6	11·0	13·4	18·6	22·5	25·1	21·3
Sambalpur . .	27·4	28·1	29·4	28·7	25·3	16·6	10·2	10·0	12·0	16·9	21·5	25·8	21·0
Chaibassa . .	28·0	26·9	27·8	27·6	25·1	17·4	12·1	11·6	13·8	18·4	23·1	27·3	21·6
Ranchi . . .	23·5	23·4	24·3	25·0	23·6	16·5	11·1	10·7	12·7	17·4	20·2	23·1	19·3
Hazaribagh . .	22·6	23·5	24·8	25·6	23·7	16·7	10·9	10·5	12·5	16·5	19·4	21·7	19·0
Balasore . .	25·6	23·5	22·8	21·5	18·9	13·3	10·1	9·9	11·1	14·9	20·6	25·0	18·1
False Point . .	20·8	18·0	15·1	12·3	11·3	10·2	9·0	8·8	9·8	12·8	16·9	20·6	13·8
Cuttack . .	24·7	24·4	24·5	24·0	21·5	15·4	11·2	10·8	12·1	15·1	19·0	23·4	18·8
Gopalpur . .	19·1	15·6	13·4	10·2	9·3	8·6	8·2	8·6	10·0	13·4	16·6	19·5	12·7
Waltair . .	12·8	12·8	11·6	11·3	11·1	10·2	10·2	10·7	11·0	12·4	12·0	12·6	11·6
Cocanada . .	15·7	16·2	18·2	17·3	17·9	14·2	12·4	11·2	11·1	12·1	13·0	15·0	14·5
Masulipatam . .	18·2	18·6	19·1	17·4	18·5	17·5	14·6	13·7	13·3	12·9	13·8	16·4	16·1
Nellore . .	19·7	21·5	23·8	23·5	24·0	19·6	17·7	16·9	16·9	15·4	15·1	16·6	19·2
Madras . .	17·3	18·9	17·8	16·0	17·4	17·8	17·0	16·5	16·0	13·9	12·8	13·6	16·3
Cuddalore . .	16·0	16·5	17·1	16·0	18·7	18·8	18·2	17·4	16·2	13·4	13·2	14·1	16·3

TABLE XI.—*Average monthly and annual diurnal range of temperature of 170 stations in India, etc.*—concld.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Negapatam . .	11·0	12·3	13·2	13·5	17·1	17·9	17·7	16·4	16·0	12·5	10·0	9·4	13·9
Pamban . .	7·1	10·0	12·7	11·9	9·8	9·4	9·6	10·4	10·7	9·8	8·2	7·0	9·7
Trincomalee . .	8·7	9·9	12·0	13·4	14·2	13·2	14·0	15·1	14·6	12·9	10·6	8·0	12·2
Port Blair . .	10·8	13·2	14·5	13·7	10·6	8·2	8·0	8·1	8·6	9·6	9·6	9·2	10·4
Amini Devi . .	10·3	9·1	9·9	10·4	9·5	8·1	7·5	7·9	7·8	8·7	9·5	11·1	9·1
Perim . . .	9·2	9·3	9·5	9·9	10·6	12·5	13·0	12·7	11·7	10·6	9·8	9·7	10·7
Aden . . .	7·8	8·3	9·2	11·8	12·3	11·0	10·8	11·9	11·4	12·5	10·2	8·8	10·5
Muscat . . .	5·0	5·0	4·6	5·3	5·6	5·7	3·9	3·6	3·8	4·7	4·7	4·7	4·7
Jask . . .	13·5	13·1	12·6	13·9	14·1	12·7	11·0	10·5	12·6	15·2	14·5	14·2	13·1
Bushire . .	12·4	12·9	13·5	14·9	13·8	11·4	11·0	13·0	15·2	16·6	15·8	13·8	13·7
Ispahan . .	23·4	25·1	24·8	27·4	30·0	32·5	32·1	34·0	35·3	33·0	26·0	23·1	28·9
Teheran . .	16·1	19·2	18·8	21·5	23·5	27·3	26·3	26·0	25·8	23·5	19·2	17·4	22·0
Kalat . . .	32·1	31·3	32·4	38·8	42·1	43·3	40·0	42·3	45·7	44·1	40·4	34·0	38·8
Kabul . . .	27·2	25·2	21·5	26·3	29·4	30·7	30·8	32·9	36·3	33·8	32·7	27·2	29·5
Gilgit . . .	13·6	14·7	16·4	18·7	23·6	24·6	23·3	22·1	22·2	20·8	19·2	14·7	19·5
Kashgar . .	19·9	22·6	20·1	22·6	22·7	24·3	22·9	22·8	24·7	26·5	23·2	20·2	22·7
Baghdad . .	21·8	22·9	24·1	24·7	23·9	26·4	27·9	29·6	30·1	30·5	25·2	20·5	25·7
Zanzibar . .	6·5	6·7	7·0	7·1	6·8	7·3	7·5	8·1	8·6	7·9	6·6	6·3	7·2

TABLE XII.—*Comparison of monthly mean air temperatures in 1902 with the averages of past years.*

METEOROLOGICAL PROVINCE.	STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
		°	°	°	°	°	°	°	°	°	°	°	°	°
BURMA COAST AND BAY ISLANDS.	Port Blair	+1·1	+0·8	+0·6	+1·1	+0·1	+0·3	+1·4	+0·2	−0·2	+1·8	+0·6	+0·9	+0·8
	Rangoon	+0·6	−0·4	+1·5	+0·9	−0·8	+0·2	+0·2	+0·7	+0·7	+0·5	+1·0	+0·5	+0·5
	Diamond Island	+1·8	+2·6	+2·7	+3·0	+0·3	+0·7	+1·4	+1·6	+0·7	+1·0	+1·6	+1·3	+1·6
	Cocos Island . . .	+2·8	+1·6	+1·1	+2·7	+2·0	+0·8	?	?	?	?	?	?	?
	Akyab	+1·1	0	+0·4	−0·9	−0·8	−0·1	−0·8	+1·0	+0·2	−0·9	−0·7	−1·7	−0·3
BENGAL AND ORISSA.	Chittagong	+1·3	+0·3	+0·9	−1·3	−0·6	−0·2	−0·5	+1·4	+0·4	−1·0	−1·6	−0·9	−0·2
	Calcutta (Alipore) . .	+1·7	+1·2	+2·0	−2·4	−1·3	+0·7	+0·2	+1·5	+1·3	+0·8	0	+0·6	+0·5
	Saugor Island . . .	+1·0	+0·8	+0·4	+0·1	0	+1·0	+0·5	+1·9	+1·8	+1·5	0	+0·3	+0·8
	False Point . . .	+0·1	−0·1	+0·7	−0·4	−0·1	+0·2	0	+0·9	+1·1	+0·7	−1·1	−0·	+0·1
GANGETIC PLAIN AND CHOTA NAGPUR.	Hazaribag	+2·1	+1·6	+4·1	+0·6	−0·9	+4·3	+0·5	+1·9	+1·3	+0·6	+0·4	−0·2	+1·4
	Darbhanga . . .	+1·3	+1·7	+2·1	−2·1	−0·4	+0·4	−0·3	+1·3	−0·7	−1·2	−1·1	−1·8	−0·1
	Allahabad . . .	+1·1	+0·9	+2·7	+1·3	+1·4	+3·0	−0·2	+0·8	−0·8	−0·7	−1·9	−1·9	+0·5

TABLE XII.—*Comparison of monthly mean air temperatures in 1902 with the averages of past years*—contd.

Meteorological Provinces.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Upper Sub-Himalayas.	Dehra Dun	+1·6	+3·4	+3·3	−0·5	+0·2	−1·0	−2·0	−1·2	−1·0	−1·9	−0·4	−1·8	−0·1
	Roorkee	+0·6	+1·3	+3·5	−0·5	+0·1	−2.2	−2·3	−0·8	−0·8	−1·2	−0·7	−2·9	−0·5
	Meerut	+1·6	+2·3	+3·0	−0·1	+1·7	−2·0	−1·7	+1·0	−0·4	−0·3	+0·1	−0·7	+0·4
	Lahore	+2·6	+5·3	+3·9	+2·0	+4·1	+0·8	+2·0	+2·8	+1·1	+3·0	+2·9	+0·8	+2·6
	Ludhiana	+3·2	+4·4	+4·4	+1·6	+2·1	−0·2	+0·3	+2·1	−0·5	+1·0	+2·0	−0·9	+1·6
North-West Frontier, Indus Valley and North-West Rajputana.	Peshawar	+2·7	+6·1	+8·4	+0·6	+4·0	+1·4	+0·5	+2·2	+0·9	+0·8	+1·3	−0·8	+1·8
	Jacobabad	+1·5	+3·2	+5·5	+2·8	+3·6	−0·5	+4·1	+1·9	+0·8	+3·8	+3·9	+0·7	+2·6
	Kurrachee	+1·8	+2·3	+3·2	+4·2	+1·4	−0·3	+3·3	+1·8	+2·5	+3·9	+3·5	+1·7	+2·4
East Rajputana, Central India and Gujarat.	Jaipur	+2·9	+4·9	+5·1	+2·6	+1·9	+1·1	+1·8	+3·4	+0·3	+1·6	+1·2	+0·6	+2·3
	Deesa	+2·7	+3·3	+4·8	+3·7	+1·5	+1·1	+6·8	+4·5	+1·4	+2·4	+2·2	+0·7	+2·9
Deccan	Belgaum	+1·7	+1·0	+0·7	+0·6	+1·2	+1·5	+0·5	+2·0	+0·9	+0·3	−0·2	+0·2	+0·9
	Sholapur	+2·8	+0·8	+1·7	+0·9	+2·4	+1·9	+2·7	+3·5	+1·6	+3·1	−0·6	+1·0	+1·8
	Akola	+3·3	+2·5	+2·9	+2·5	+2·4	+4·7	+1·9	+3·1	+0·7	+1·9	0	+1·2	+2·3
	Buldana	+3·1	+2·1	+3·2	+0·7	+1·6	+3·6	+2·3	+2·4	+0·3	+0·8	−0·7	−1·6	+1·5
	Khandwa	+3·8	+3·1	+4·3	+3·0	+2·4	+4·3	+2·8	+3·1	+0·5	+2·1	+0·7	0	+2·5
	Nagpur	+3·2	+1·0	+2·9	+1·7	+2·5	+5·9	+2·0	+2·6	+0·3	+1·3	+0·2	+0·1	+2·0
	Hyderabad (Deccan).	+2·3	+0·1	+2·7	−0·1	+2·7	+2·7	+2·6	+3·3	+1·3	+2·0	−0·5	+2·2	+1·8
West Coast	Bombay	+2·8	+1·8	+2·6	+1·1	+1·8	+1·7	+1·4	+1·7	+0·5	+2·3	+2·1	+0·6	+1·7
	Karwar	+1·5	+0·9	+1·1	+1·1	+1·9	+0·9	+0·3	+1·8	+0·5	+1·2	+1·5	+1·6	+1·2
South India	Salem	0	−0·7	+1·0	0	+0·5	+2·3	+0·5	+1·0	+1·0	−0·4	+0·5	+1·4	+0·6
	Chitaldroog	+1·2	0	+1·7	+1·5	+2·4	+2·2	+1·5	+3·4	+0·7	+1·0	+0·9	+1·8	+1·5
	Bangalore	+1·1	−0·1	+1·3	+0·2	+1·5	+2·5	+1·8	+2·7	+0·7	+0·2	+1·0	+2·2	+1·3
	Hassan	−0·8	−0·7	+0·9	+0·2	+1·5	+1·6	+0·7	+2·2	+0·6	+0·6	+0·2	+1·7	+0·7
	Mysore	−0·5	−0·3	+0·4	+0·7	+1·2	+1·9	+0·5	+1·9	−0·9	+0·4	+0·3	+2·3	+0·7
	Madras	−0·2	−0·9	+0·1	+0·2	+1·5	+1·3	+0·8	+0·2	−0·5	−0·9	+0·4	+0·7	+0·2
	Bellary	+1·8	−0·4	+1·5	+1·1	+1·5	+0·5	+0·8	+2·7	+1·0	+0·3	+0·3	+2·7	+1·2
Hill Station, Baluchistan.	Quetta	+2·9	+4·4	+4·4	+0·6	+2·0	+1·3	+0·2	+1·4	+0·7	+2·0	+3·2	−0·1	+1·9
Hill Stations, Northern India.	Leh	+3·0	+6·3	+1·0	−1·1	+1·0	−1·8	−3·2	−2·5	+0·2	+1·0	+0·1	−2·4	+0·1
	Srinagar	+4·5	+9·0	+8·5	−2·5	+0·7	−1·1	−1·0	−0·9	+0·7	+1·8	+0·3	−0·3	+1·2
	Kasilang	+6·6	+5·8	+1·1	−1·5	+1·3	−0·1	−2·6	−2·6	0	+0·9	−1·8	?	?
	Simla (Ridge)	+3·5	+4·1	+1·0	−2·5	−0·1	−2·1	−1·9	−0·8	−1·5	−2·8	−1·3	−1·2	−0·5
	Chakrata	+4·4	+4·6	+1·7	−2·0	−0·7	−1·4	−1·6	−0·5	−0·9	−2·5	−0·7	+1·0	+0·1

TABLE XII.—*Comparison of monthly mean air temperatures in 1902 with the averages of past years*—concld.

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Hill Stations, Northern India—*concluded.*	Ranikhet	+1·8	+3·8	+1·6	−1·2	+1·7	−0·3	−0·9	+0·6	−0·3	−2·3	−0·7	−0·6	+0·3
	Katmandu	0	+1·3	+0·9	−1·5	−1·0	−1·6	−1·4	−0·5	−1·4	−3·8	−1·1	?	?
	Darjeeling	?	+2·7	+2·2	−1·0	+0·4	+0·1	+0·3	+1·2	+0·8	−2·0	+0·4	+0·7	?
Hill Stations, Central India.	Mount Abu	+3·7	+3·9	+5·0	+1·9	+0·6	+0·4	+4·3	+3·0	+0·4	−0·4	+0·8	−0·5	+1·9
	Pachmarhi	+3·1	+2·1	+3·5	+2·0	+2·5	+4·8	+2·7	+3·1	+1·3	+1·8	+0·2	+0·7	+2·3
	Chikalda	+2·9	+2·3	+4·2	+0·7	+1·9	+4·0	+2·3	+2·3	+1·0	+1·1	−0·7	−1·6	+1·7
Hill Station, South India.	Wellington	−0·3	−0·6	−0·7	?	?	?	?	?	?	?	?	?	?
Extra India	Aden	−0·1	−0·1	+0·7	+1·3	?	+1·6	?	+4·6	−0·3	+0·6	+1·9	+0·4	?
	Perim	+0·1	−0·3	+0·4	+0·4	+1·1	−0·1	+0·2	+2·4	+0·1	+0·4	+1·9	+0·7	+0·6
	Zanzibar	+0·3	−1·1	+0·7	+0·8	+1·9	+1·0	+1·2	+1·3	+1·3	−0·1	+1·5	?	?
	Port Victoria (Seychelles).	−1·8	−1·4	−0·8	?	−0·9	−0·9	−0·2	−0·5	−0·6	−0·4	−0·4	−0·3	?
	Mauritius (Pamplemousses.)	−0·4	+0·3	−1·4	−0·6	+0·2	+0·8	+1·2	+1·2	+1·1	+1·3	+1·3	+0·1	+0·4

TABLE XIII.—*Geographical summary of the temperature data of Table II in the Monthly Weather Reviews of 1902.*

Meteorological Area.	Number of stations.	January.	February.	March.	April	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		°	°	°	°	°	°	°	°	°	°	°	°	°
North-West Himalaya	6	+4·0	+5·6	+1·7	−1·8	+0·7	−1·1	−1·9	−1·1	−0·3	−0·7	−0·7	−0·6	+0·3
Sikkim Himalaya and Nepal.	1—2	0	+2·0	+1·6	−1·3	−0·3	−0·8	−0·6	+0·4	−0·3	−2·9	−0·4	+0·7	−0·2
Punjab Plains	3	+2·8	+5·3	+3·6	+1·4	+3·4	+0·7	+0·9	+2·4	+0·5	+1·6	+2·1	−0·3	+2·0
Gangetic Plain	5	+1·2	+1·9	+2·9	−0·4	+0·6	−0·4	−1·3	+0·2	−0·7	−1·1	−0·8	−1·8	0
Western Rajputana	4	+2·4	+3·2	+4·6	+3·2	+1·8	+0·2	+4·6	+2·8	+1·3	+2·4	+2·6	+0·7	+2·5
Eastern Rajputana and Central India.	1	+2·9	+4·9	+5·1	+2·6	+1·9	+1·1	+1·8	+3·4	+0·3	+1·6	+1·2	+0·6	+2·3
Nerbudda Valley	1	+3·8	+3·1	+4·3	+3·0	+2·4	+4·3	+2·8	+3·1	+0·5	+2·1	+0·7	0	+2·5
Chota Nagpur	1	+2·1	+1·6	+4·1	+0·6	−0·9	+4·3	+0·5	+1·9	+1·3	+0·6	+0·4	−0·2	+1·4
Lower Bengal	2	+1·4	+1·0	+1·2	−1·2	−0·7	+0·9	+0·4	+1·7	+1·6	+1·2	0	+0·5	+0·7
Orissa	1	+0·1	−0·1	+0·7	−0·4	−0·1	+0·2	0	+0·9	+1·1	+0·7	−1·1	−0·3	+0·1
Central Provinces South and Berar.	5	+3·1	+2·0	+3·3	+1·5	+2·2	+4·6	+2·2	+2·7	+0·7	+1·4	−0·2	−0·2	+1·9
Konkan	2	+2·2	+1·4	+1·9	+1·1	+1·9	+1·3	+0·9	+1·8	+0·5	+1·8	+1·8	+1·1	+1·5
Deccan, Hyderabad and Mysore.	8	+1·2	+0·1	+1·4	+0·6	+1·8	+1·9	+1·4	+2·7	+0·7	+1·0	+0·2	+1·8	+1·2
East Coast and Carnatic	2	−0·1	−0·8	+0·6	+0·1	+1·0	+1·8	+0·7	+0·6	+0·3	−0·7	+0·5	+1·1	+0·4
Arakan and Pegu	4	+1·2	+0·6	+1·4	+0·4	−0·5	+0·2	0	+1·2	+0·5	−0·1	+0·1	−0·2	+0·4
Bay Islands	1—2	+2·0	+1·2	+1·4	+1·9	+1·1	+0·6	+1·4	+0·2	−0·2	+1·8	+1·6	+0·9	+1·2
Extra-Tropical India	25—26	+2·4	+3·4	+2·8	+0·2	+1·0	+0·2	+0·3	+1·0	+0·3	+0·3	+0·3	−0·4	+1·0
Tropical India	22—24	+1·6	+0·7	+1·7	+0·9	+1·4	+2·0	+1·2	+2·0	+0·6	+0·8	+0·3	+0·5	+1·1
Whole India	47—50	+2·0	+2·1	+2·3	+0·5	+1·2	+1·0	+0·7	+1·5	+0·4	+0·5	+0·3	+0·2	+1·1

TABLE XIV (*a*).—*Variations of the mean monthly maximum temperature from the normal in 1902 in the eleven meteorological provinces of India.*

METEOROLOGICAL PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Burma Coast and Bay Islands	+0·1	−1·7	+0·3	+0·2	−1·4	+0·5	+0·4	+1·1	+0·1	+0·8	+1·0	+0·9	+0·2
Burma Inland	−0·5	−0·4	+1·8	−1·4	+0·3	+1·2	−0·7	+0·8	−1·4	−1·5	−0·3	−0·9	−0·3
Assam	+1·3	+2·2	+1·8	−4·3	−0·4	−1·5	−1·4	−0·5	−1·0	−2·2	−0·4	−0·6	−0·6
Bengal and Orissa	+1·3	+1·9	+0·5	−3·9	−1·9	+0·8	−0·4	+1·5	−0·1	−0·1	+0·3	−0·4	0
Gangetic Plain and Chota Nagpur.	+2·5	+3·1	+3·3	−0·9	−1·1	+3·7	+0·8	+2·0	−0·9	−0·3	+0·3	−0·4	+1·0
Upper Sub-Himalayas	+4·2	+6·7	+3·6	−1·1	0	−1·8	−0·3	+2·1	−1·1	−1·8	+0·2	−0·7	+0·8
North-West Frontier Province, Indus Valley and North-West Rajputana.	+5·2	+7·0	+3·9	+1·3	+2·0	−1·9	+2·2	+2·6	+0·2	−0·8	+1·4	+0·6	+2·0
East Rajputana, Central India and Gujarat.	+3·5	+3·3	+4·5	+0·4	+0·4	+1·9	+4·0	+3·3	−1·3	−0·3	+0·4	−1·4	+1·6
Deccan	+2·8	+1·3	+2·9	+0·4	+1·9	+5·0	+2·7	+3·7	−0·1	+1·0	−1·3	−1·9	+1·5
West Coast	+0·7	+1·0	+1·0	+0·8	+1·5	+1·1	0	+1·6	−0·4	+0·5	+0·2	−1·2	+0·6
South India	0	−1·2	+0·6	+0·4	+1·2	+1·9	+0·8	+1·5	−0·1	−0·4	−1·0	−0·5	+0·3

TABLE XIV (*b*).—*Variations of the mean monthly minimum temperature from the normal in 1902 in the eleven meteorological provinces of India.*

METEOROLOGICAL PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Burma Coast and Bay Islands	+1·0	+0·2	+2·2	+0·7	+0·4	+0·6	+0·7	+1·0	+0·6	+0·1	+0·6	+2·0	+0·8
Burma Inland	+1·3	−0·5	+0·9	−0·1	+0·2	+0·3	−0·1	+0·4	0	−1·4	−2·2	−1·5	−0·2
Assam	−0·1	−0·8	+1·2	−2·1	−0·2	−0·9	−0·4	+0·4	−0·1	−2·9	−2·8	−2·7	−1·0
Bengal and Orissa	+0·5	−0·9	+1·8	−1·4	−0·8	−0·1	−0·3	+0·6	+0·4	−0·8	−1·3	−0·9	−0·3
Gangetic Plain and Chota Nagpur.	+0·2	−0·9	+2·8	0	+0·1	+1·5	−0·4	+0·9	+0·2	+0·4	−0·9	−1·5	+0·2
Upper Sub-Himalayas	−0·7	+0·3	+2·3	+0·4	+2·1	−0·1	−0·5	+1·4	+0·6	+2·3	+2·0	−1·9	+0·7
North-West Frontier Province, Indus Valley and North-West Rajputana.	−1·4	−1·0	+3·5	+1·9	+1·9	−0·6	+1·5	+1·0	+0·9	+4·2	+2·9	−1·2	+1·1
East Rajputana, Central India and Gujarat.	+1·3	+1·0	+3·7	+2·9	+1·3	+1·2	+1·8	+1·8	+0·8	+2·3	+1·3	+0·7	+1·7
Deccan	+2·0	+0·4	+1·9	+1·7	+1·8	+2·2	+0·7	+1·1	+0·5	+1·6	−0·2	+3·4	+1·4
West Coast	+1·6	+0·6	+1·3	+1·2	+1·5	+0·7	+0·6	+1·5	+0·3	+1·1	+1·9	+3·3	+1·3
South India	+0·4	−1·0	+0·6	+1·2	+0·8	+0·8	+0·6	+0·8	+0·5	−0·2	+1·0	+3·1	+0·7

TABLE XIV (*c*).—*Variations of the mean monthly temperature from the normal in 1902 in the eleven meteorological provinces of India.*

METEOROLOGICAL PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Burma Coast and Bay Islands	+0·6	−0·8	+1·3	+0·5	−0·5	+0·6	+0·6	+1·1	+0·4	+0·5	+0·8	+1·4	+0·5
Burma Inland	+0·4	−0·4	+1·4	−0·8	+0·3	+0·8	−0·4	+0·6	−0·7	−1·5	−1·3	−1·2	−0·2
Assam	+0·6	+0·7	+1·5	−3·2	−0·3	−1·2	−0·9	0	−0·5	−2·6	−1·6	−1·7	−0·8
Bengal and Orissa	+0·9	+0·5	+1·2	−2·7	−1·4	+0·4	−0·3	+1·1	+0·2	−0·5	−0·5	−0·6	−0·1

TABLE XIV (c).—*Variations of the mean monthly temperature from the normal in 1902 in the eleven meteorological provinces of India*—concld.

METEOROLOGICAL PROVINCES.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	°	°	°	°	°	°	°	°	°	°	°	°	°
Gangetic Plain and Chota Nagpur.	+1·4	+1·1	+3·1	−0·4	−0·5	+2·6	+0·2	+1·5	−0·4	+0·1	−0·3	−1·0	+0·6
Upper Sub-Himalayas . .	+1·8	+3·6	+3·0	−0·4	+1·1	−0·9	−0·4	+1·8	−0·3	+0·3	+1·1	−1·3	+0·8
North-West Frontier Province, Indus Valley and North-West Rajputana.	+1·9	+3·0	+3·7	+1·6	+1·9	−1·3	+1·8	+1·8	+0·6	+1·7	+2·2	−0·3	+1·6
East Rajputana, Central India and Gujarat.	+2·4	+2·2	+4·1	+1·7	+0·9	+1·6	+2·9	+2·6	−0·2	+1·0	+0·9	−0·4	+1·6
Deccan	+2·4	+0·9	+2·4	+1·1	+1·9	+3·7	+1·7	+2·4	+0·2	+1·3	−0·8	+0·8	+1·5
West Coast	+1·2	+0·8	+1·2	+1·0	+1·5	+0·9	+0·3	+1·6	−0·1	+0·8	+1·1	+1·1	+1·0
South India	+0·2	−1·1	+0·6	+0·8	+1·0	+1·4	+0·7	+1·2	+0·2	−0·3	0	+1·3	+0·5

TABLE XV.—*Variations of the mean monthly and annual temperatures from the normal in 1902 in 55 of the 57 meteorological districts or divisions in India.*

PROVINCE.	DIVISION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
		°	°	°	°	°	°	°	°	°	°	°	°	°
BURMA . .	1. Tenasserim . .	+0·1	−0·8	+1·0	+0·6	−0·5	+0·7	+1·3	+1·0	+0·4	+1·4	+1·9	+3·2	+0·9
	2. Lower Burma Deltaic .	+1·1	−1·0	+2·4	+1·1	−0·2	+0·6	+0·6	+1·0	+0·5	+0·5	+0·9	+0·7	+0·7
	3. Central Burma . .	+1·6	−1·8	+1·4	+1·2	+0·7	+1·4	−0·6	+1·0	−0·2	−0·8	−1·7	−0·7	+0·1
	4. Upper Burma . .	+0·2	−0·5	+1·4	+0·7	+0·2	+0·6	−0·6	+0·5	−0·7	−1·6	−1·3	−1·7	−0·2
	5. Arakan . . .	+1·3	−0·5	?	−1·2	−1·1	+0·2	−0·8	+1·6	+0·2	−1·2	−0·4	−1·8	−0·3
BENGAL AND ASSAM.	6. Eastern Bengal . .	+0·8	+0·5	+0·8	−2·8	−1·4	−0·3	−0·7	+0·9	−0·1	−1·1	−0·7	−0·9	−0·4
	7. Assam, Surma . .	+1·7	+1·4	+1·5	−2·2	+0·4?	−0·7	+0·3?	+0·4	+0·4	−2·1	−1·6	−1·7	−0·1?
	9. Do. Brahmaputra .	0	+0·3	+0·5	−3·8	−0·3	−1·5	−0·9	−0·3	−1·0	−2·9	−1·7	−1·7	−1·1
	10. Deltaic Bengal . .	+1·1	+0·4	+1·0	−2·2	−1·4	+0·6	−0·2	+1·5	+1·1	+0·3	−0·5	−0·1	+0·1
	11. Central Bengal . .	+1·3	+1·0	+1·5	−3·9	−2·2	+0·1	−0·4	+1·0	0	−0·6	+0·4	−0·2	−0·2
	12. North Bengal . .	+1·5	+1·7	+1·3	−3·2	−0·9	−0·2	−0·5	+0·5	−1·4	−1·7	−1·2	−1·8	−0·5
	13. Bengal Hills . .	?	+2·3	+1·5	−1·7	−0·7	−0·2	−0·1	+0·8	−0·2	−2·4	+0·1	+0·7	0
	14. Orissa . . .	−0·2	−0·5	+1·2	−1·3	−0·9	+1·8	+0·3	+1·3	+0·9	+1·0	−0·5	−0·2	+0·2
	15. Chota Nagpur . .	+0·9	+1·2	+3·8	−0·5	−1·9	+3·6	+0·5	+1·7	+1·2	+1·1	+0·2	−0·1	+1·0
	16. South Bihar . .	+1·0	+0·5	+3·0	−0·8	+0·2	+2·2	+0·7	+1·8	−0·9	−0·2	−0·1	−0·5	+0·6
	17. North Bihar . .	+1·4	+1·1	+2·0	−2·4	−1·2	+0·6	−0·1	+1·0	−0·4	−1·3	−0·8	−1·8	−0·2
UNITED PROVINCES OF AGRA AND OUDH.	18. United Provinces, East	+1·6	+0·5	+3·0	+0·9	+0·5	+3·1	−0·1	+1·1	−0·8	−0·1	−0·7	−1·3	+0·6
	19. South Oudh . .	+1·2	+0·8	+2·7	−0·3	+0·4	+2·5	−0·5	+1·1	−1·2	+0·2	+0·1	−0·4	+0·6
	20. North Oudh . .	+2·1	+2·1	?	+0·3?	−0·7	?	+0·4	+0·8	−0·4	−0·3	−0·5	−1·3	+0·3?
	21. United Provinces, Central.	+1·6	+1·5	+3·9	+0·2	+0·1	+2·6	+0·3	+2·3	−0·6	+0·9	−0·1	−1·2	+1·0
	22. Do. do., West	+1·9	+2·6	+3·0	−0·4	+0·8	−1·4	−0·4	+1·8	−0·1	+1·2	+0·8	−1·0	+0·7
	23. Do. do., East Submontane.	+1·7	+1·6	+1·9	−1·4	−1·0	+2·2	−0·8	+0·8	−0·7	−1·6	−1·3	−2·0	−0·1
	24. Do. do., West Submontane.	+2·0	+3·1	+3·2	−0·9	+0·3	−0·3	−1·0	+0·4	−0·3	−1·0	+0·2	−1·1	+0·4
	25. Do. do., Hills	+3·4	+4·3	+1·7	−2·1	0	−0·7	−0·8	0	−0·6	−2·3	−0·5	+0·4	+0·2

TABLE XV.—*Variations of the mean monthly and annual temperatures from the normal in 1902 in 55 of the 57 meteorological districts or divisions in India*—concld.

Province.	Division.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		°	°	°	°	°	°	°	°	°	°	°	°	°
Punjab and North-West Frontier Province.	26. South-East Punjab	+1·7	+2·5	+2·6	−0·5	+0·7	−2·0	−1·3	+1·7	−1·1	−0·5	+0·6	−1·4	+0·3
	27. South Punjab	+1·6	+3·0	+2·9	?	−0·1	−1·6	+0·7	+2·7	+0·5	+1·2	+2·4	−1·9	+1·0
	28. Central Punjab	+1·8	+4·3	?	+0·4	+2·3	−0·6	+1·5	+2·4	−0·2	+1·6	+2·4	−0·8	+1·3
	29. Punjab Submontane	+1·7	+4·3	+3·2	0	+1·5	−1·4	−0·3	+2·1	−0·4	+0·5	+1·7	−1·7	+0·9
	30. Do. and North-West Frontier Province Hills	+5·5	+6·5	+2·0	−2·2	+0·1	−2·1	−1·7	−0·7	−0·5	−0·9	−1·3	−0·8	+0·3
	31. North Punjab	+2·4	+5·2	+2·2	+0·1	+3·4	+0·3	−0·2	+2·7	+0·5	+1·5	+1·2	−0·8	+1·5
	32. West Punjab	+1·0	+3·2	+3·1	+0·9	+2·2	−1·7	+0·6	+1·0	+0·5	+1·6	+2·2	−0·9	+1·1
Bombay and Malabar Coast Districts (Madras.)	33. Malabar	+0·5	+0·3	+0·3	+1·1	+1·3	+1·3	+0·3	+1·5	−0·3	+0·4	+0·9	+1·3	+0·7
	34. Madras, South Central	−0·8	−1·4	+0·3	+0·6	+0·3	+1·4	+0·3	+0·6	+0·4	−0·2	0	+1·0	+0·2
	35. Coorg	−0·5	−0·1	−0·2	?	+0·4	+1·0	+1·1	+1·4	−0·7	+0·4	−0·2	+1·0	+0·3
	36. Mysore	+0·5	−0·6	+1·1	+0·7	+1·1	+1·5	+0·7	+2·0	−0·2	+0·3	+0·4	+2·1	+0·8
	37. Konkan	+1·8	+1·3	+1·6	+0·9	+1·7	+0·7	+0·3	+1·6	+0·2	+1·1	+1·2	+0·9	+1·1
	38. Bombay Deccan	+2·4	+0·9	+1·2	+0·5	+1·7	+1·3	+0·9	+2·4	+0·8	+1·9	−0·5	+1·2	+1·2
	40. Khandesh	+3·0	+2·1	+3·1	+1·5	+2·2	+2·5	+2·3	+2·3	+0·4	+1·7	−0·8	+0·6	+1·7
Central Provinces and Berar.	41. Berar	+3·6	+1·9	+2·8	+1·4	+2·0	+5·0	+1·7	+2·7	+0·4	+1·3	−0·2	+0·5	+1·9
	42. Central Provinces, West	+3·5	+1·3	+3·3	+1·4	+1·7	+5·1	+2·7	+2·6	0	+1·3	−0·8	+0·1	+1·9
	43. Do., Central	+2·2	+1·4	+3·7	+1·1	+1·4	+4·8	+1·4	+2·3	−0·4	+0·9	−0·8	+0·3	+1·5
	44. Do., East	+1·3	−0·5	+2·5	−0·3	+1·8	+6·6	+0·3	+0·9	−0·7	+0·1	−1·8	−0·5	+0·8
Bombay (North)	45. Gujarat	+3·7	+3·3	+4·7	+2·0	+1·1	+2·3	+3·7	+2·6	−0·8	+1·5	+1·6	+0·2	+2·2
	46. Kathiawar and Cutch	+2·3	+1·4	+3·4	+2·3	+0·7	+0·8	+3·4	+1·6	−0·2	+1·0	+1·2	−0·2	+1·5
	47. Sind	+2·1	+2·4	+4·5	+3·1	+1·6	−1·4	+3·4	+2·0	+1·0	+2·5	+3·3	+1·1	+2·1
	48. Baluchistan Hills	+4·2	+3·3	+5·6	−0·5	+0·6	+0·1	−1·4	+0·4	−0·7	+1·7	+2·5	+0·9	+1·4
Rajputana and Central India.	49. Central India, East	+2·0	+1·8	+3·5	+1·3	+1·1	+3·7	+2·4	+2·2	−0·4	+0·6	−0·5	−0·8	+1·4
	50. Rajputana, East Central India, West.	+2·4	+3·1	+5·3	+2·3	+0·7	+0·6	+3·4	+3·6	+0·4	+1·1	+1·1	0	+2·0
	51. West Rajputana	+2·0	?	+3·2	+0·6	+1·4	−1·1	+3·8	+3·0	−0·1	+0·6	+1·0	−1·1	+1·2
Madras	52. East Coast, North	+0·8	−1·0	+1·5	0	0	+2·1	−0·9	+1·0	−0·2	+0·1	+0·2	+0·9	+0·4
	53. Hyderabad, South	+1·9	−0·8	+1·5	+1·0	+2·7	+2·0	+2·5	+3·4	+0·7	+1·7	−0·7	+2·0	+1·5
	54. Madras, Central	+1·4	−1·1	+1·5	+1·5	+1·6	+0·4	+1·8	+2·2	+0·5	+0·5	+0·2	+2·4	+1·1
	55. East Coast, Central	+0·4	−1·4	+0·5	+0·7	+1·3	+1·2	+1·3	+0·4	−1·1	−0·9	−0·5	+0·9	+0·2
	56. Do., South	−0·1	−0·9	+0·3	+0·7	+1·3	+1·4	+1·0	+0·5	+1·2	−0·9	+0·2	+0·9	+0·5
	57. Madras, South	−1·3	−1·4	−0·4	+0·6	+1·6	+1·8	0	+0·9	+0·5	−1·9	−0·9	+0·2	0

In the discussion of the meteorology of India, during the year 1902, the year is divided into four seasons according to the following arrangement:—

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

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

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

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

The following give a resume of the chief features of the temperature conditions during the year:—

I.—The cold-weather period.—January was unusually free from storms. No storm entered North-West India from the countries to the west. The leading features of the meteorology of the month over nearly the whole country were abnormal dryness of the air, absence of cloud and high temperature.

At the commencement of the month temperature was below the normal over Northern India, due to the cool wave following the storm of the last week of December. The influence of this wave did not fully pass away until the beginning of the second week of the month.

The lowest night temperatures of the year were generally recorded during this period in North-Western India. The most noteworthy were:—

Station.	Date.	Lowest minimum temperature recorded during year.	Variation of actual from normal
		°	°
Umballa . . .	4th January .	32·0	—11·0
D. I. Khan . .	5th " .	28·0	—11·2
Rawalpindi . .	6th " .	26·0	—10·8
Khushab . . .	" " .	27·4	—13·3
Montgomery . .	" " .	30·5	—10·6
Mooltan . . .	" " .	36·0	— 6·7
Bikaner . . .	" " .	39·1	—10·4
Lahore . . .	7th " .	31·5	— 8·3
Jacobabad . . .	10th " .	32·0	—11·0

Temperature was more or less above the normal on the 10th, the excess being most marked in the Konkan, the Bombay Deccan, Khandesh, Berar and the Central Provinces where it ranged between 4° and 7°.

The weather was feebly unsettled in that area of high temperature between the 6th and 10th, and some light local thundershowers were received. This rainfall did not affect the temperature conditions, and the area was throughout the period and until the 13th or 14th characterized by a considerable excess of temperature.

On the 10th a fall of temperature occurred over Baluchistan and North-West India, and a cool wave of slight intensity advanced across Northern India, reaching Orissa by the 15th. The reduction of temperature caused by this cool wave was not very marked, but the recovery after it had disappeared was brisk.

During the period from the 10th to the 15th temperature was largely in excess locally in Gujarat, Khandesh, Berar and the Bombay Deccan. The excess in this area ranged from 3° to 8°.

On the 17th a small area of relatively low temperature appeared over Kathiawar, and this area extended eastward until it spread right across the head of the Peninsula as far as Bengal. A noteworthy feature of this area was the lowness of the night temperatures, more especially as the day or maximum temperatures were generally in excess. These temperature conditions lasted from the 18th to the 23rd, during which period excessive temperatures prevailed over North-West India, slightly higher temperatures than usual over the southern half of the Peninsula, and deficient temperatures within a broad band running from the Konkan Coast to Bengal.

On the 24th the band of relatively low temperature across the central parts of the country disappeared, and from the 24th to the 29th the mean temperature was steadily in excess all over Northern and Central India.

On the 28th there was some snow in Kashmir and probably in the Afghan region. This was followed by an outset of cool north-west winds from the mountain region around the North-West Frontier and by a brisk to rapid fall of temperature. This fall appeared in Baluchistan on the 28th, and the Indus Valley on the 29th and extended all over North-West India on the 30th, when temperature was reduced considerably below the normal.

The following shows fully the progress of this cool wave due to the snowfall in Kashmir and Afghanistan on the 27th and 28th:—

Province or Division.	Variation from normal of mean temperature of 24 hours preceding 8 A.M. of							
	28th Jan.	29th Jan.	30th Jan.	31st Jan.	1st Feb.	2nd Feb.	3rd Feb.	4th Feb.
	°	°	°	°	°	°	°	°
Baluchistan . .	+6·1	—13·8	—14·8	—11·0	—6·2	—5·5	+0·5	+3·9
Punjab . . .	+7·3	+8·7	—0·2	—3·1	—2·6	—2·0	—0·9	+2·3
Sind	+8·9	+3·3	—5·5	—5·5	—4·9	—3·5	+0·6	+4·6
Rajputana . .	+10·0	+8·1	—0·9	—6·8	—4·2	—3·5	—4·2	—0·1
United Provinces of Agra and Oadh.	+4·2	+7·1	+7·6	+1·3	—1·5	—1·8	—2·2	—1·0
Bihar . . .	+3·1	+3·8	+5·5	+7·2	+2·0	—1·2	—1·6	—2·7
Chota Nagpur . .	+1·4	+2·4	+6·7	+7·1	+4·7	+2·1	—1·5	—4·0
Bengal . . .	+2·1	+3·1	+5·1	+6·0	+5·2	+1·2	—1·6	—2·3
Orissa . . .	—0·5	+0·3	+2·6	+3·0	+4·0	+2·9	—0·8	—3·9
Assam . . .	+1·9	+2·4	+2·8	+2·7	+3·8	+1·4	—0·7	—2·4
Central India . .	+5·9	+7·8	+7·6	+0·4	—2·8	—2·3	—4·6	—2·4
Central Provinces .	+2·5	+4·0	+3·9	+1·8	+0·6	0	—3·0	—4·2
Berar . . .	+2·5	+2·0	+4·2	+1·5	+0·4	+0·6	—1·1	—1·6

The meteorology of the month of February was characterised by large abnormal features or variations from the normal conditions, more especially by a very large persistent excess of pressure and almost equally persistent excess of temperature over the whole of India and also by great dryness of the air, absence of cloud and scanty rainfall.

The chief features of the period from the 1st to the 8th were due to the march across Northern India of the cool wave (already described) in the rear of a warm wave followed by the appearance of a second warm wave in the frontier districts.

At the commencement of the month a feeble depression which had advanced from the Persian area across Northern India during the previous four days, was filling up in Bengal.

The warm wave in front of this depression on the 1st lay over Bengal, and the cool wave in its rear in North-Western India. A rapid increase of pressure accompanied the filling up of the depression in Bengal on the 2nd, and from that date to the end of the month pressure was more or less above the normal.

The warm wave in West Bengal on the 1st passed into East Bengal on the 2nd, and Upper Burma on the 3rd. The cool wave in its rear gave the greatest reduction of temperature in Baluchistan on the 1st, Sind and North Rajputana on the 2nd, Central India on the 3rd and North-Eastern India on the 4th, 5th and 6th. The second warm wave was in Baluchistan on the 3rd and the frontier districts on the 4th and 5th.

The chief feature of the period from the 9th to the 14th was the sudden appearance of a central area of high temperature in North Bombay (*i. e.*, Kathiawar and Gujarat) on the 9th and its extension northwards and eastwards, due apparently to local pressure conditions producing an indraught of warm westerly sea winds.

Temperature continued throughout the period most largely in excess in North Bombay, Gujarat and West Rajputana. The conditions were very marked on the 14th, when temperature was from 6° to 10° in excess in that area. A shallow depression due to thermal actions formed on the 13th over Gujarat and some local thundershowers of little importance occurred on the 14th. The depression filled up partially on the 15th, but skies continued more or less clouded. On the 16th it slightly intensified again and extended eastwards. Thunderstorms and duststorms, due to the general disturbance, occurred in the western and northern districts of the Central Provinces and Central India and gave light local showers. As is usual with this class of disturbance, the local rainfall did not modify the temperature conditions.

No change of importance in the meteorology of India occurred until the 19th, and the chief feature during this period from the 15th to the 19th was the persistent large excess of temperature over the whole of Northern and Central India and the North Deccan. A shallow depression formed in Lower Sind during the 24 hours preceding 8 A.M. of the 19th. Light snow fell in Kashmir during the day. The shallow depression marched eastwards across Northern India. During the next three days snowstorms occurred in the higher Kashmir and Punjab ranges and hailstorms on the lower ranges. The storm gave showers in the Upper India hills and Bihar on the 21st, and in Chota Nagpur, Bihar, Bengal and Assam on the 22nd and 23rd. This disturbed weather reduced temperature very slightly in Northern India, and hence temperature continued more or less above the normal over the whole of Northern and Central India and was in slight to moderate defect over the greater part of the Peninsula, an example of the contrast of temperature conditions in Extra-Tropical and Tropical India which is the usual rule in the cold weather.

During the remainder of the month temperature was more or less above the normal over nearly the whole area.

The most important feature of the meteorology of India at the end of the month was the abnormally high temperature in Upper India, the adjacent hill districts and Baluchistan. The excess was most marked in Baluchistan and the Indus Valley, where it was over 10° on the 27th and 28th.

The following gives variation data for five stations at which the excess was greatest on these two days:—

Date.	Station.	Variation from normal of		
		Maximum temperature.	Minimum temperature.	Mean temperature.
		°	°	°
27th February	Chaman	+12·4	+14·2	+13·3
	Rawalpindi	+12·7	+12·5	+12·6
	Quetta	+11·5	+12·7	+12·1
	Jacobabad	+12·9	+10·7	+11·8
	Bushire	+11·0	+ 8·8	+ 9·9
28th ,,	Leh	+13·5	+13·7	+13·6
	Khushab	+11·9	+12·3	+12·1
	Lahore	+ 8·6	+10·9	+ 9·8
	Sialkot	+11·0	+13·0	+12·0
	Montgomery	+ 9·8	+ 9·0	+ 9·4

The following gives a summary of the leading features of the temperature conditions during the period:—

(1) The mean maximum or day temperature of the period was excessive over the whole of India except South India, Mysore and the Madras Coast, and also in Burma and Orissa where it was normal or in slight defect. The excess was greatest and exceeded 4° in a large area, including Baluchistan, the Punjab, Sind and Rajputana and from that diminished slowly in amount eastwards and southwards.

The deficiency in the southern half of the Peninsula was small except in South India where it averaged 1·7°.

The distribution of the temperature anomalies was similar in the two months, and the differences or variations were slightly larger and more marked in February than in January.

The following gives comparative data for the various provinces:—

Province or Division.	Variation of mean maximum temperature from normal in		
	January.	February.	Cold weather period, January and February
	°	°	°
Burma	—0·2	—1·3	—0·8
Assam	+1·3	+2·2	+1·8
Bengal	+1·7	+2·1	+1·9
Orissa	—0·5	+0·5	0
Bihar	+2·7	+3·7	+3·2
Chota Nagpur	+0·5	+1·6	+1·1
United Provinces of Agra and Oudh	+3·1	+3·9	+3·5
Punjab	+5·0	+7·6	+6·3
Sind	+4·7	+6·0	+5·4
Rajputana	+4·8	+4·5	+4·7
Gujarat	+3·4	+3·6	+3·5
Central India	+2·3	+2·4	+2·4
Central Provinces	+2·7	+1·8	+2·3
Berar	+4·3	+2·2	+3·3
West Coast	+0·7	+1·0	+0·9
Bombay Deccan	+3·1	+1·7	+2·4
Mysore	+0·6	—1·0	—0·2
Madras Coast	—0·1	—0·9	—0·5
Madras Deccan	+1·9	—0·6	+0·7
South India	—1·4	—2·0	—1·7

The variations were absolutely largest at the stations for which data are given below:—

Station.	Variation of mean maximum temperature from normal in		
	January.	February.	Cold weather period, January and February.
	°	°	°
Srinagar	+14·2	+15·1	+14·7
Cherat	+9·6	+9·8	+9·7
Rawalpindi	+7·4	+10·7	+9·1
Quetta	+8·1	+8·5	+8·3
Khushab	+5·8	+10·3	+8·1
Chaman	+7·4	+7·7	+7·6
Peshawar	+6·2	+8·5	+7·4
Murree	+6·9	+7·7	+7·3
Sialkot	+4·8	+9·3	+7·1

(2) The variations of the mean minimum or night temperature over the greater part of the country were similar in the two months, and hence on the mean of the period. The mean minimum temperature was generally slightly below the normal in Northern India and also in the extreme south of the Peninsula. It was, on the other hand, above the normal to a slight or moderate extent in the intermediate area including Gujarat, Central India, the Central Provinces, Berar, the Deccan and Bombay Coast districts.

The following gives comparative data for the various provinces for the cold weather period:—

Province or Division.	Variation of mean minimum temperature from normal in		
	January.	February.	Cold weather period, January and February.
	°	°	°
Burma	+1·3	—0·1	+0·6
Assam	—0·1	—0·8	—0·5
Bengal	+0·6	—0·6	0
Orissa	+0·2	—1·4	—0·6
Bihar	—0·1	—1·9	—1·0
Chota Nagpur	+1·2	+0·7	+1·0
United Provinces of Agra and Oudh	+0·3	—0·4	—0·1
Punjab	—1·7	—0·1	—0·9
Sind	—0·6	—1·3	—1·0
Rajputana	—0·3	+0·8	+0·3
Gujarat	+2·3	+0·4	+1·4
Central India	+1·6	+0·8	+1·2
Central Provinces	+1·8	+0·2	+1·0
Berar	+2·9	+1·6	+2·3
West Coast	+1·6	+0·6	+1·1
Bombay Deccan	+2·0	+1·1	+1·6
Mysore	+0·4	—0·9	—0·3
Madras Coast	+1·0	—1·1	—0·1
Madras Deccan	+1·4	—0·8	+0·3
South India	—0·6	—0·6	—0·6

(3) The variations of the mean temperature in both months of the cold weather period were similar in character. As the variations of the maximum and minimum temperatures were inverse to each other over the greater part of India, the variations of the mean temperature were small to moderate in amount. Temperature was on the mean of the period in slight defect in South India, normal in Burma, Orissa, Assam, Mysore and Madras, and in excess over the remainder of India. The excess was largest, ranging between 2° and 3°, in the following areas:— Punjab and Berar (each +2°·8), Rajputana and Gujarat (each +2°·5), and Sind (+2°·3).

The following gives comparative data for the various provinces:—

Province or Division.	Variation of mean temperature from normal in		
	January.	February.	Cold weather period, January and February.
	°	°	°
Burma	+0·6	—0·7	—0·1
Assam	+0·6	+0·7	+0·7
Bengal	+1·2	+0·8	+1·0
Orissa	—0·2	—0·5	—0·4
Bihar	+1·3	+0·9	+1·1
Chota Nagpur	+0·9	+1·2	+1·1
United Provinces of Agra and Oudh	+1·7	+1·8	+1·8
Punjab	+1·7	+3·8	+2·8
Sind	+2·2	+2·4	+2·3
Rajputana	+2·3	+2·7	+2·5
Gujarat	+2·9	+2·6	+2·5
Central India	+2·0	+1·6	+1·8
Central Provinces	+2·3	+1·0	+1·7
Berar	+3·6	+1·9	+2·8
West Coast	+1·2	+0·8	+1·0
Bombay Deccan	+2·6	+1·4	+2·0
Mysore	+0·3	—1·0	—0·3
Madras Coast	+0·5	—1·0	—0·3
Madras Deccan	+1·7	—0·7	+0·5
South India	—1·0	—1·3	—1·2

II.—The hot weather period.—As almost invariably occurs when the months of January and February are finer and drier than usual, March 1902 was more disturbed than usual. A large number of depressions of the cold weather-type advanced eastwards across Northern India. The following gives a very brief statement of these disturbances and of their influence upon the temperature conditions:—

Cold weather storm of the 1st to the 8th March.—This storm formed in Persia on the 1st and 2nd. It advanced through Baluchistan on the 3rd and 4th, and entered India on the 5th and passed across Northern India into Bengal on the 8th. It gave no rain in the plains of Northern India. A feeble secondary disturbance formed in the North Punjab on the 6th and filled up on the 7th. It gave moderate rain or snow to the Kashmir and Punjab Himalayas. The warm wave in front of the storm was strongly marked, but the cool wave was comparatively feeble, due to the absence of snow on the Baluchistan Plateau.

Cold weather storm of the 7th to the 14th March.—This storm originated in Persia on the 7th and passed through Baluchistan on the 9th. It crossed the frontier on the 10th and passed eastwards across the South-East Punjab, Rajputana, the south-eastern districts of the United Provinces and Chota Nagpur into Orissa and the north of the Bay. The disturbance gave practically no rain or snow in North-Western India. The most noteworthy feature of the storm was the heavy rain which occurred in Bengal accompanying series of thunderstorms. The heaviest reported fall was 7·35 inches at Mollahat in the Khulna district. This rainfall reduced temperature chiefly in Bengal.

Cold weather storm of the 16th to the 22nd March.—Weather was very disturbed in South-East Russia, Turkistan and the Persian area from the 12th to the 15th or 16th, and much rain and snow fell over the greater part of that area. A shallow depression appeared in Sind on the 16th. Apparently this depression advanced eastwards, and at the same time a secondary depression formed in the North Punjab. The double disturbance gave heavy rain or snow in the submontane and hill districts of Upper India.

The cold wave in the rear of this storm was of moderate intensity. The following data illustrate the progress of the warm and cool waves:—

Station.	Date.	Largest excess of temperature due to warm wave.	Date.	Largest defect of temperature due to cool wave.	Total range of variation of temperature during period.
		°		°	°
Chaman	17th	+14·4	19th	— 9·8	24·2
Rawalpindi	"	+ 7·3	20th	—12·4	19·7
Jacobabad	18th	+10·5	19th	+ 2·3	8·2
Bikaner	"	+12·5	21st	— 7·0	19·5
Lucknow	19th	+ 9·7	22nd	— 5·7	15·4
Jubbulpore	20th	+ 9·0	23rd	— 1·6	10·6
Ranchi	"	+ 8·5	"	— 8·5	17·0
Berhampore	"	+ 4·1	"	—12·6	16·7
Calcutta	21st	+ 2·2	"	— 9·4	11·6

Depression and cold weather storm of the 25th to the 28th March.—The disturbance orginated in West Persia on the 22nd and was transmitted slowly eastwards along the Persian Gulf into South Baluchistan on the 25th. It advanced thence into Rajputana on the 26th, and at the same time gave rise to a secondary depression in the North Punjab and Kashmir. The original or primary depression advanced eastwards during the next 48 hours and was in the central districts of the United Provinces on the 27th and in Bihar and Bengal on the 28th. The secondary disturbance filled up completely during the 27th.

The double disturbance occasioned moderate precipitation in Kashmir and the North Punjab and gave rise to warm and cool waves of small amplitude and intensity over Northern India between the 25th and 30th.

It will be seen from the preceding account of the temparature changes in Extra-Tropical India that there

was a rapid succession of warm and cool waves during the month. The cool waves were, with one exception, very feeble and exercised little influence on the temperature conditions save in North-Eastern India, where their action was supplemented by the occurrence of rainfall.

Weather was feebly disturbed in the Deccan and the central parts of the country on the 2nd of April and in Bengal on the 3rd, and a series of thunderstorms occurred in these areas. Temperature hence fell over a large part of the country and was reduced below the normal in the region of rainfall which included the whole of Bengal, the Central Provinces and the Deccan.

These disturbed conditions continued during the next two days and caused a further reduction of temperature so that on the 5th temperature was more or less below the normal over the greater part of India.

Temperature, on the other hand, increased during this period in North-Western India and was in moderate to large excess in that area.

A feeble cool wave appeared in Baluchistan on the 7th. It extended rapidly into Upper India during the 7th and reduced temperature very largely on the 7th and 8th in that area and on the 9th in the Gangetic Plain.

Numerous thundershowers occurred in Bengal on the 8th and 9th. Temperature hence decreased very rapidly and on the 9th averaged 7° in defect in Bihar, 5½° in Chota Nagpur and 4° in Bengal.

Bengal and Assam received fairly general rain on the 14th and 15th, and the very large reduction of temperature thence resulting accentuated the deficiency already obtaining in that area.

On the 19th temperature increased generally in India and diminished in Burma, and on the 20th was from 2° to 7° above the normal over the whole of the Indian area except North-Eastern India and Upper and Central Burma where it was in large defect.

A slight disturbance affected the weather in the hill and plains districts of Upper India during the next 24 hours occasioning a fall of snow on the higher ranges of the Western Himalayas. Temperature fell rapidly in Baluchistan and Upper India, and on the 21st was below the normal in these areas and in North-Eastern India and Upper Burma, and in considerable excess in all other districts. The only large change during the next two days was a rapid rise of temperature in Upper India.

During the remainder of the month the temperature conditions in Northern India were determined by the passage across that area of a storm of moderate intensity. The storm gave very disturbed weather in Afghanistan, Kashmir, Thibet and Upper India with heavy falls of snow on the higher elevations in these areas. The cool wave which resulted was of considerable intensity and affected these areas from the 24th to the 28th. The reduction of temperature was most marked in Turkistan and at the higher elevations of Kashmir.

The following gives variation data showing the greatest deficiency of temperature and its locality on each day from the 24th to the 28th :—

Area.	24th April.		25th April.		26th April.	
	Greatest deficiency of temperature.	Locality.	Greatest deficiency of temperature.	Locality.	Greatest deficiency of temperature.	Locality.
	°		°		°	
Turkistan . .	− 12·2	Kashgar	−21·0	Kashgar	−22·2	Kash gar.
Kashmir . .	− 12·1	Srinagar	−13·4	Gilgit	−18·5	Gilgit.
Upper India hills	− 8·5	Cherat	−15·8	Ranikhet	−15·7	Murree.
„ „ plains	− 5·6	Peshawar	− 8·1	Roorkee	−11·6	Rawalpindi
Afghanistan .	− 7·3	Kabul	− 8·8	Kabul	− 9·5	Kabul.
Baluchistan .			− 6·1	Chaman	−15·8	Kalat.

Area.	27th April.		28th April.	
	Greatest deficiency of temperature.	Locality.	Greatest deficiency of temperature.	Locality.
	°		°	
Turkistan . . .	−11·2	Kashgar	− 2·8	Kashgar.
Kashmir . . .	−11·0	Gilgit	−10·4	Gilgit.
Upper India hills . .	− 7·7	Murree	− 3·5	Murree.
„ „ plains. .	−11·2	Montgomery	− 8·3	Sirsa.
Afghanistan . . .	− 6·8	Kabul	−10·4	Kabul.
Baluchistan . . .	−11·8	Kalat	− 6·1	Kalat.

The lowest night temperatures of the month in Kashmir, Baluchistan, Afghanistan and the West Punjab were recorded in this period, but were not so low as have been occasionally registered in the month of April during previous years.

A rapid increase of temperature occurred in Baluchistan, the Punjab and Sind on the 28th and 29th, and at the end of the month temperature was in large excess in the last two areas. The area of low temperature, which covered the Punjab on the 28th, was, in consequence of this rise, displaced eastwards into the Gangetic Plain on the 29th and 30th, so that on the latter date temperature was more or less in defect over the whole of the United Provinces, Bengal, Assam, Upper Burma, Central India and the Central Provinces, and in excess over the remainder of the country.

At the commencement of May temperature was higher than usual over the whole of the country, with the exception of Assam, Bengal and the Madras Coast. The excess was most pronounced in Rajputana and the western half of the United Provinces, over the greater part of which areas it varied between 3° and 6½°.

During the next three days numerous thundershowers occurred in Bengal and Assam, and some local showers in South India, the Deccan and the Upper India hill districts. These showers caused a rapid temporary reduction of temperature in these areas.

A cyclonic storm crossed into Burma from the Bay on the morning of the 6th and initiated a general burst of rain which lasted until the 8th or 9th. The rainfall caused a large reduction of temperature, most marked on the 7th when the mean temperature was, on the average of the whole of Burma, 6° below the normal.

Fine dry weather prevailed over nearly the whole of India during the period from the 5th to the 8th. Temperature hence increased and was in moderate to large excess on the 8th. Weather became disturbed in North-East India on the 9th, and rain was received daily in that area during the next four days. Temperature hence diminished rapidly in that area and was largely below the average on the 12th and 13th.

A depression appeared over Sind on the 11th and marching eastwards passed into the East Punjab and the adjacent hill districts on the 13th. Fairly general rain occurred in East Rajputana, the Punjab, and the neighbouring districts of the United Provinces on the 11th and produced a very rapid fall of temperature.

Before these abnormal conditions had completely passed away, weather became again feebly disturbed in that area during the 13th in consequence of the advance into the Punjab of a cyclonic storm from the Arabian Sea. The influx of sea winds and the rainfall accompanying the storm produced an unusually large but temporary reduction of temperature from the 14th to the 16th. The mean temperature on the 14th was 15° in defect in Sind, and on the 15th 10° in defect in the Punjab and Rajputana.

A remarkable feature of the temperature conditions of the period 8th to the 16th in the Peninsula was the excessive temperature in the coast districts of Madras, south of Cocanada, a result of the prevalence of abnormal dry westerly winds.

The following data for five stations illustrate this feature :—

Station.	Variation from normal of mean temperature of 24 hours preceding 8 A. M. of								
	8th May.	9th May.	10th May.	11th May.	12th May.	13th May.	14th May.	15th May.	16th May.
	°	°	°	°	°	°	°	°	°
Masulipatam	+5·2	+8·8	+7·4	+0·6	+0·8	−0·5	+0·9	+7·8	+8·1
Nellore	+4·6	+1·9	+3·4	+1·8	+2·7	+2·9	+1·3	−1·7	+1·9
Madras	+4·8	+6·7	+4·0	+5·1	+5·4	+3·0	+1·6	+2·9	+6·1
Cuddalore	+2·8	+4·7	+1·3	+3·4	+4·1	+2·3	+0·9	+4·2	+3·1
Negapatam	+3·9	+4·0	+3·6	+1·0	+4·6	+5·0	+1·7	+2·8	+2·2

Temperature increased on the 23rd rapidly in the south of the Peninsula and briskly in Gujarat, and on the morning of the 24th exceeded the normal in all districts except Bengal, Orissa, Bihar and Chota Nagpur. No large change occurred until the 26th, when series of dust-storms and thunderstorms occurred in Upper India and reduced temperature considerably. Temperature was below the normal over the large belt of country lying between the West Punjab and Assam from the 27th to the 29th.

The temperature changes were very irregular on the last two days of the month, but on the whole tended to establish an approximately normal distribution of temperature.

The following summarizes the more important features of the temperature conditions of the period :—

(1) The maximum or day temperature was more or less in excess over the whole of North-Western and Central India during the period, the excess, on the whole, being most marked in March and decreasing to the end of the period. The following gives data :—

Province or Division.	Variation of mean maximum temperature from normal in			
	March.	April.	May.	Period, March to May.
	°	°	°	°
United Provinces of Agra and Oudh.	+3·7	−0·4	−0·5	+0·9
Punjab	+3·2	−0·7	+1·2	+1·2
Sind	+4·7	+2·4	+1·3	+2·8
Rajputana	+5·3	+0·9	+0·8	+2·3
Gujarat	+4·5	+1·0	+0·3	+1·9
Central India	+3·9	−0·2	+0·6	+1·2

It was also in steady excess during the period over the Peninsula, the excess being moderate to considerable in March and May and slight in April. The following table gives comparative data in illustration :—

Province or Division.	Variation of mean maximum temperature from normal in			
	March.	April.	May.	Period, March to May.
	°	°	°	°
Central Provinces	+3·6	−0·2	+1·4	+1·6
Berar	+3·3	+0·7	+1·6	+1·9
West Coast	+1·0	+0·8	+1·5	+1·1
Bombay Deccan	+2·5	+1·7	+2·3	+2·2
Mysore	+1·3	+0·2	+1·4	+1·0
Madras Coast	+0·7	0	+1·0	+0·6
Madras Deccan	+1·8	+0·9	+2·2	+1·6
South India	−0·5	+0·3	+0·9	+0·2

In North-Eastern India the maximum day temperature was more or less above the normal in March, a dry month, but was more or less below it in April and May, due to frequent thunderstorms giving much heavier rain than usual. The following table gives data in illustration :—

Province or Division.	Variation of mean maximum temperature from normal in			
	March.	April.	May.	Period, March to May.
	°	°	°	°
Burma	+1·2	0	−0·6	+0·2
Assam	+1·3	−4·3	−0·4	−1·0
Bengal	+0·5	−4·1	−2·0	−1·9
Orissa	+0·5	−2·4	−1·5	−1·1
Bihar	+2·3	−3·2	−1·3	−0·7
Chota Nagpur	+3·4	−1·2	−2·2	0

(2) The meteorological conditions of the period influenced the temperature throughout the whole 24 hours similarly, and hence the variations of the minimum night temperature were similar to those of the day temperature, differing only slightly in amount.

The minimum temperature was in excess throughout the period over the whole of North-Western and Central India, the variations decreasing from March to May. The mean variation of the period ranged between 1·2° in the United Provinces and 3°·3 in Sind. The following gives data :—

Province or Division.	Variation of mean minimum temperature from normal in			
	March.	April.	May.	Period, March to May.
	°	°	°	°
United Provinces of Agra and Oudh.	+2·6	0	+0·9	+1·2
Punjab	+2·5	+0·8	+2·5	+1·9
Sind	+4·2	+3·8	+1·8	+3·3
Rajputana	+4·3	+2·5	+1·1	+2·6
Gujarat	+3·2	+3·0	+1·4	+2·5
Central India	+3·1	+2·8	+1·6	+2·5

The night temperature was also throughout in excess in the Peninsula. On the mean of the period the variations were largest in the Central Provinces and Berar (averaging 2·2°) and least in Mysore, the Madras coast districts, South India and the Bombay Deccan (averaging nearly 1°). The following gives data in illustration :—

Province or Division.	Variation of mean minimum temperature from normal in			
	March.	April.	May.	Period, March to May.
	°	°	°	°
Central Provinces	+2·7	+2·0	+1·7	+2·1
Berar	+2·2	+2·1	+2·3	+2·2
West Coast	+1·3	+1·3	+1·5	+1·4
Bombay Deccan	+0·8	+0·1	+1·2	+0·7
Mysore	+0·8	+0·8	+0·8	+0·8
Madras Coast	+0·6	+1·0	+0·7	+0·8
Madras Deccan	+1·2	+1·0	+2·2	+1·5
South India	+0·4	+1·0	+0·7	+0·7

The minimum temperature was in slight to moderate excess in Burma and North-Eastern India in March and normal or in slight defect in April and May. On the mean of the whole period the night temperature varied by less than 1° from the normal in these areas except locally in Bihar and Chota Nagpur where it was 1° in excess.

(3) The mean temperature was normal or in slight defect on the mean of the period in North-Eastern India and Burma, as is shown by the following data :—

Province or Division.	Variation of mean temperature from normal in			
	March.	April.	May.	Period, March to May.
	°	°	°	°
Burma	+1·5	+0·2	−0·2	+0·5
Assam	+1·5	−3·2	−0·3	−0·7
Bengal	+1·1	−3·0	−1·5	−1·1
Orissa	+1·2	−1·3	−0·9	−0·3
Bihar	+2·5	−1·6	−0·5	+0·1
Chota Nagpur	+3·8	−0·5	−1·9	+0·5

The mean temperature was above the normal over the whole of North-Western and Central India and the Peninsula throughout the whole period. The excess was

considerable in March and slight in April and May. The following table gives data in illustration :—

Province or Division.	Variation of mean temperature from normal in			
	March.	April.	May.	Period, March to May.
	°	°	°	°
United Provinces of Agra and Oudh.	+3·2	−0·2	+0·2	+1·1
Punjab	+2·9	+0·1	+1·9	+1·6
Sindh	+4·5	+3·1	+1·6	+3·1
Rajputana	+4·8	+1·7	+1·0	+2·5
Gujarat	+3·9	+2·0	+0·9	+2·3
Central India	+3·5	+1·3	+1·1	+2·0
Central Provinces	+3·2	+0·9	+1·6	+1·9
Berar	+2·8	+1·4	+2·0	+2·1
West Coast	+1·2	+1·1	+1·5	+1·3
Bombay Deccan	+1·7	+0·9	+1·8	+1·5
Mysore	+1·1	+0·5	+1·1	+0·9
Madras Coast	+0·7	+0·5	+0·9	+0·7
Madras Deccan	+1·5	+1·0	+2·2	+1·6
South India	−0·1	+0·7	+0·8	+0·5

The preceding data show that the area of greates excess of temperature included Sind, Rajputana, Gujaratt Berar and Central India.

III.—The south-west monsoon period.—The temperature variations during this period chiefly depend on the amount and distribution of the rainfall. Owing to delay in the establishment of the monsoon over India and the weakness of the Bombay current during the first-half of the monsoon period temperature was considerably to largely above the normal over the greater part of India in June, July and the first-half of August. The rains began feebly on the West Coast in the second week of June and were intermittent during the remainder of June. The current was very unsteady in July. It gave fairly general and moderate rain in the first fortnight of the month and light sporadic rain in the second-half over its usual area of extension. An almost complete break in the rains in that area set in on the 3rd August and continued until the 18th or 19th. The Bombay current then intensified rapidly and gave general and well distributed rain until nearly the end of September when it withdrew rapidly from North-Western India. The following gives a summary of the more important variations of the temperature conditions of the period from the normal.

(1) The daily maximum temperature was generally in slight to moderate excess during the period from June to August and normal or in slight defect in September over the area usually dependent upon the Bay current. The following gives data :—

Province or Division.	Variation of mean maximum temperature from normal in				
	June.	July.	August.	September.	Period June to September.
	°	°	°	°	°
Burma	+0·8	−0·1	+1·1	−0·4	+0·4
Assam	−1·5	−1·4	−0·5	−1·0	−1·1
Bengal	+0·4	−0·5	+1·4	−0·2	+0·3
Orissa	+3·4	+0·4	+2·0	+0·8	+1·7
Bihar	+1·8	+0·9	+1·7	−1·0	+0·9
Chota Nagpur	+4·9	+0·8	+2·0	+0·7	+2·1
United Provinces of Agra and Oudh	+1·9	+0·1	+2·0	−1·2	+0·7
Punjab	−2·1	+0·1	+2·4	−0·6	−0·1

It was, on the other hand, in considerable to large excess over the usual area of extension of the Bombay current during the first three months of the period and normal or in slight defect in September. The following gives data :—

Province or Division.	Variation of mean maximum temperature from normal in				
	June.	July.	August.	September.	Period, June to September.
	°	°	°	°	°
Sind	−2·2	+4·1	+2·7	+0·8	+1·4
Rajputana	0	+4·8	+4·2	−0·7	+2·1
Gujarat	+1·6	+4·7	+2·7	−1·3	+1·9
Central India	+4·5	+3·3	+2·8	−1·4	+2·3
Central Provinces	+6·9	+2·8	+3·4	−0·4	+3·2
Berar	+6·1	+2·3	+3·7	−0·2	+3·0
West Coast	+1·1	0	+1·6	−0·4	+0·6
Bombay Deccan	+3·2	+1·8	+3·9	+0·3	+2·3
Mysore	+2·4	+0·6	+3·1	−0·6	+1·4
Madras Coast	+2·0	+0·4	+0·6	−0·3	+0·7
Madras Deccan	+3·1	+2·9	+3·8	+0·4	+2·3
South India	+1·7	+0·3	+0·6	+0·4	+0·8

The data show that the increase in the day temperature was largest in amount in the Central Provinces and Berar in June, in Rajputana, Gujarat and Sind in July, and in Rajputana, the West and North Punjab and the Deccan in August.

The following table gives data for stations in the area of greatest excess of temperature during the day hours in Berar and the Central Provinces in June :—

Station.	Mean maximum temperature		
	Actual, June.	Normal June.	Variation of actual from normal.
	°	°	°
Sambalpur	106·6	97·3	+9·3
Raipur	105·3	97·2	+8·1
Chanda	105·7	98·5	+7·2
Nagpur	105·5	98·3	+7·2
Seoni	101·2	94·2	+7·0
Jubbulpore	103·9	96·9	+7·0
Hoshangabad	104·9	98·1	+6·8
Cocanada	101·8	95·2	+6·6
Ranchi	97·5	91·1	+6·4
Akola	104·5	98·2	+6·3
Sutna	105·0	98·7	+6·3
Amraoti	103·4	97·2	+6·2
Khandwa	102·7	97·6	+5·1

The excess was hence most pronounced in the eastern districts of the Central Provinces.

The highest maximum temperatures of the year were recorded in the first week of June in Upper India. In years of normal conditions the hot-weather usually terminates in the fourth week of May, but in 1902, owing to the delay in the establishment of the monsoon, it was protracted beyond its normal period and the highest temperatures of the year were registered about a week later than usual. The following gives the maximum temperatures of the year recorded at the hottest stations :—

Station.	Highest maximum temperature recorded in June, 1902.	Date on which recorded.	Highest maximum temperature recorded in June previous to 1902.	Year in which recorded.
	°		°	
Jacobabad	125·0	5th June	126·0	1897
D. I. Khan	119·7	" "	121·5	1882
Mooltan	119·0	" "	121·0	1897
Khushab	118·9	4th "	120·4	1896&1897
Peshawar	117·5	7th "	119·0	1880
Lahore	117·4	4th "	119·5	1880

These temperatures were hence from 1° to 2° lower than the highest previously recorded. The absolute maximum of the year was 125° registered at Jacobabad. The following table gives data for the area of greatest excess of the day temperature in July :—

Area.	Station.	Mean maximum temperature		
		Actual, July.	Normal, July.	Variation of actual from normal.
		°	°	°
Rajputana	Deesa	101·3	91·7	+9·6
	Pachpadra	104·4	97·6	+6·8
Gujarat	Ahmedabad	98·3	91·4	+6·9
	Bhuj	95·9	90·0	+5·9
	Rajkot	96·2	90·6	+5·6
Sind	Jacobabad	111·7	107·8	+3·9

The highest maximum temperatures in the region of excessive day temperature were generally registered during the second week of the month. The absolute maximum temperatures recorded at several stations were higher than have been previously observed in the month of July and it was hence the hottest July on record in these areas. The following gives data in illustration :—

Station.	Highest maximum temperature recorded in July, 1902.	Date on which recorded.	Highest maximum temperature recorded in July previous to 1902.	Year in which recorded.
	°		°	
Deesa	111·1	8th	108·9	1881
Bhuj	104·3	6th	104·1	1881
Veraval	92·6	8th	90·8	1891
Ahmedabad	108·3	6th	106·3	1900
Surat	102·2	7th	99·7	1900
Bombay	93·5	11th	89·5	1897
Hyderabad (Deccan)	98·4	11th	97·4	1897

The preceding data indicate that the maximum temperatures recorded at Deesa, Ahmedabad, Bombay and Surat were from 2° to 4° higher than have been previously registered in the month of July.

The following table gives data for the area of greatest excess of the day temperature in August :—

Station.	Mean maximum temperature		
	Actual, August.	Normal, August.	Variation of actual from normal.
	°	°	°
Rawalpindi	98·9	93·9	+5·0
Sialkot	99·5	94·7	+4·8
Peshawar	103·5	99·2	+4·3
Deesa	95·6	88·9	+6·7
Ajmer	92·5	88·2	+4·3
Ahmedabad	94·4	90·1	+4·3
Secunderabad	91·8	86·1	+5·7
Sholapur	93·9	88·8	+5·1
Chanda	92·5	87·6	+4·9

The night temperature was higher than usual throughout the whole period. During the first three months it was in slight to moderate excess over the greater part of India, a feature of the general elevation throughout the whole 24 hours period accompanying lighter and more intermittent rain than usual. In September the increased cloud which gave a slight diminution of temperature by day produced the opposite effect of slightly increased temperature by night. The following gives variation data for the whole period :—

Province or Division.	Variation of mean minimum temperature from normal in				
	June.	July.	August.	September.	Period, June to September.
	°	°	°	°	°
Burma	+0·5	+0·2	+0·8	+0·4	+0·5
Assam	−0·9	−0·4	+0·4	−0·1	−0·3
Bengal	−0·2	−0·3	+0·6	+0·3	+0·1
Orissa	+0·2	+0·1	+0·5	+0·9	+0·4
Bihar	+0·9	−0·2	+1·0	−0·3	+0·4
Chota Nagpur	+2·2	+0·1	+1·3	+1·6	+1·3
United Provinces of Agra and Oudh.	+1·0	−0·7	+0·8	+0·2	+0·3
Panjab	−0·3	+0·2	+1·3	+0·8	+0·5
Sind	−0·5	+2·7	+1·2	+1·2	+1·2
Rajputana	+0·1	+2·2	+2·5	+1·1	+1·5
Gujarat	+0·9	+2·2	+1·2	+0·5	+1·2
Central India	+2·9	+1·4	+1·6	+0·6	+1·6
Central Provinces	+3·6	+0·3	+0·6	0	+1·1
Berar	+3·6	+1·1	+1·7	+0·9	+1·8
West Coast	+0·7	+0·6	+1·5	+0·3	+0·8
Bombay Deccan	+0·1	+0·7	+0·7	+1·1	+0·7
Mysore	+0·5	+0·7	+0·9	+0·3	+0·6
Madras Coast	+1·1	+0·6	+0·5	−0·4	+0·5
Madras Deccan	+0·6	+1·4	+1·8	+0·8	+1·2
South India	+1·0	+0·3	+0·8	+0·8	+0·7

The mean night temperature of the period was from 1° to 2° above the normal over the area, including Sind, Rajputana, Gujarat, Central India, the Central Provinces, Berar, Chota Nagpur and the Madras Deccan, *i.e.*, over a large part of the area dependent on the Bombay monsoon. The variations were large in amount in the Central Provinces and Berar in June. The following gives data for stations at which the excess was absolutely greatest :—

Station.	Mean minimum temperature		
	Actual, June.	Normal, June.	Variation of actual from normal, June.
	°	°	°
Raipur	83·1	78·4	+4·7
Sutna	85·7	81·1	+4·6
Sambalpur	85·0	80·7	+4·3
Nagpur	82·7	78·5	+4·2
Hoshangabad	83·1	79·0	+4·1

The mean temperature was generally in slight excess during the period in the region dependent on the Bay current *i.e.*, Burma, Bengal, Orissa, Chota Nagpur, Bihar and the United Provinces. The excess was most marked in June. It was very slight in July and moderate in August. The variations were irregular in September. The excess on the mean of the period was less than 1° over the whole area except Orissa (+1·°1) and Chota Nagpur (+1·°3) which areas are both to a slight extent dependent on the Bombay current. Temperature was throughout the period in slight defect in Assam. The following gives comparative data for this area of slight excess of temperature and also for Assam :—

Province or Division.	Variation of mean temperature from normal in				
	June.	July.	August.	September.	Period, June to September.
	°	°	°	°	°
Burma	+0·7	+0·1	+1·0	0	+0·5
Assam	−1·2	−0·9	−0·1	−0·6	−0·7
Bengal	+0·1	−0·4	+1·0	+0·1	+0·2
Orissa	+1·8	+0·3	+1·3	+0·9	+1·1
Bihar	+1·4	+0·4	+1·4	−0·7	+0·6
Chota Nagpur	+3·6	+0·5	+1·7	+1·4	+1·8
United Provinces of Agra and Oudh.	+1·5	−0·3	+1·4	−0·5	+0·5

The mean temperature was more or less in excess over North-Western and Central India and the Deccan during the first three months of the period, and fell very slightly below it in September. The excess was most pronounced in June. The area of greatest excess in that month included Berar and the Central Provinces, where the excess averaged 5°. In July the area of greatest excess of temperature was transferred to Sind, Rajputana and Gujarat, where the mean daily temperature of the month average 3½° above the normal. In August the area of greatest excess lay over Rajputana, temperature falling relatively to the normal in the coast districts of Sind and Gujarat with the increasing influence of the monsoon winds in that month.

The following gives comparative data for these areas:—

Province or Division.	Variation of mean temperature from normal in				
	June.	July.	August.	September.	Period, June to September.
	°	°	°	°	°
Punjab	−1·2	+0·2	+1·9	+0·1	+0·3
Sind	−1·4	+3·4	+2·0	+1·0	+1·3
Rajputana	+0·1	+3·5	+3·4	+0·2	+1·8
Gujarat	+1·3	+3·5	+2·0	−0·4	+1·6
Central India	+3·7	+2·4	+2·2	−0·4	+2·0
Central Provinces	+5·3	+1·6	+2·0	−0·2	+2·2
Berar	+4·9	+1·7	+2·7	+0·4	+2·4

The variations of the mean temperature conditions from the normal in the Peninsula south of Lat. 16° N. were similar to those obtaining in North-Western India, but generally smaller in amount.

The following gives data in illustration:—

Province or Division.	Variation of mean temperatuhe from normal in				
	June.	July.	August.	September.	Period, June to September.
	°	°	°	°	°
West Coast	+0·9	+0·3	+1·6	−0·1	+0·7
Bombay Deccan	+1·7	+1·3	+2·3	+0·7	+1·5
Mysore	+1·5	+0·7	+2·0	−0·2	+1·0
Madras Coast	+1·6	+0·5	+0·6	−0·4	+0·6
Madras Deccan	+1·4	+2·2	+2·8	+0·6	+1·8
South India	+1·4	+0·3	+0·7	+0·6	+0·8

A noteworthy feature of the period was that temperature was throughout the whole period generally below the normal over the Himalayan region and probably in Central Asia and the Persian region.

Station.	Variation from normal of mean temperature in				Mean of period.
	June.	July.	August.	September.	
	°	°	°	°	°
Kashgar	−1·9	−0·9	−0·5	+1·9	−0·4
Gilgit	−1·8	−2·4	−0·7	+1·3	−0·9
Leh	−3·8	−4·1	−3·8	−2·1	−3·5
Kailang	−0·1	−2·6	−2·6	0	−1·3
Srinagar	−0·9	−1·1	−1·2	+0·7	−0·6
Murree	−4·2	−2·4	−1·0	−2·3	−2·5
Simla	−1·7	−1·1	−0·2	−0·3	−0·8
Chakrata	−1·3	−1·4	−0·6	−1·0	−1·1
Darjeeling	−0·2	−0·1	+0·8	−0·1	+0·1

IV.—The retreating south-west monsoon period.—Over the greater part of India the variations of the temperature conditions were unusually persistent throughout the whole period. The following discusses these features.

(1) Temperature was throughout the period, both by day and night, below the normal generally over North-Eastern India and Upper and Central Burma. The deficiency was more marked in the night than the day temperature. The rains ceased earlier than usual in these areas in the month of October, and the air was drier and skies less clouded than usual, thus favouring nocturnal or terrestrial radiation. The decreased temperature by day suggests an influence from the hills to the north, due perhaps to early snowfall, but there is no direct evidence for this.

The following gives variation data:—

Area.	Variation from normal.								
	October, 1902.		November, 1902.		December, 1902.		Period, October to December, 1902.		
	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°	°	°	°	°	°	°
Central Burma	+0·3	−1·9	+0·3	−3·6	+0·8	−2·2	+0·5	−2·6	−1·1
Upper Burma	−1·8	−1·4	−0·6	−2·0	−2·6	−0·8	−1·7	−1·4	−1·6
Assam	−2·2	−2·9	−0·4	−2·8	−0·6	−2·7	−1·1	−2·8	−2·0
Bengal	−0·5	−0·9	+0·3	−1·1	−0·2	−1·1	−0·1	−1·0	−0·6
Bihar	−1·1	−0·4	−0·1	−0·7	−0·6	−1·7	−0·6	−0·9	−0·8
Chota Nagpur	+0·9	+1·3	+0·3	0	−1·1	+0·9	0	+0·7	+0·4

(2) The mean daily temperature was steadily in excess throughout the period in the Peninsula. This was solely due to high night temperatures as the day temperatures were below the normal of the period. These temperature conditions accompanied frequent general rain and the prevalence of larger amount of cloud than usual. The following gives comparative data:—

Area.	Variation from normal.								
	October, 1902.		November, 1902.		December, 1902.		Period, October to December, 1902.		
	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°	°	°	°	°	°	°
Gujarat	+0·2	+2·1	+1·0	+1·6	−1·3	+1·2	0	+1·6	+0·8
Central Provinces	+1·2	+0·4	−0·7	−1·3	−1·7	+1·9	−0·4	+0·3	0
Berar	+0·2	+2·3	−0·7	+0·3	−2·7	+3·7	−1·1	+2·1	+0·5
West Coast	+0·5	+1·1	+0·2	+1·9	−1·2	+3·3	−0·2	+2·1	+1·0
Bombay Deccan	+0·7	+2·9	−2·2	+1·0	−3·0	+5·0	−1·5	+3·0	+0·7
Mysore	+0·5	0	−0·7	+1·4	−0·2	+4·3	−0·1	+1·9	+0·9
Madras Coast	−0·6	−0·3	−0·8	+0·9	−0·7	+2·7	−0·7	+1·1	+0·2
Madras Deccan	+1·3	+1·0	−1·3	+0·8	−0·2	+4·5	−0·1	+2·1	+1·0
South India	−1·8	−0·3	−1·6	−0·7	−1·0	+1·9	−1·5	+0·3	−0·6

(3) In Central India and the Gangetic Plain the mean temperature was generally in slight defect, but the variations were small and of little importance. The following gives data:—

Area.	Variation from normal.								
	October, 1902.		November, 1902.		December, 1902.		Period, October to December, 1902.		
	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°	°	°	°	°	°	°
United Provinces of Agra and Oudh.	−0·9	+·07	+0·3	−0·5	−0·2	−2·0	−0·5	−0·6	−0·4
Central India	+0·1	+1·1	−1·7	+0·7	−1·9	+0·3	−1·2	+0·7	−0·2

(4) In Upper India and Baluchistan temperature wa higher than usual as is generally the case before and during a drier and finer cold weather than usual. The following gives data in illustration:—

Area.	Variation from normal.								
	October, 1902.		November, 1902.		December, 1902.		Period, October to December, 1902.		
	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°	°	°	°	°	°	°
Baluchistan	+1·1	+2·3	+0·9	+4·1	+0·7	+1·0	+0·9	+2·5	+1·7
Punjab	−1·6	+3·7	+0·1	+3·5	−0·3	−1·9	−0·6	+1·8	+0·6
Sind	+0·6	+4·3	+3·4	+3·1	+1·5	+0·7	+1·8	+2·7	+2·3
Rajputana	−1·1	+3·0	+1·3	+0·7	−0·5	−0·6	−0·1	+1·0	+0·5

(5) At the hill stations in the Western Himalayas temperature was generally slightly lower than usual probably due to and indicating heavier snowfall than usual to the north in Kashmir, Gilgit, Chitral and the Pamirs. The following gives comparative data:—

Area.	Variation from normal.								
	October, 1902.		November, 1902.		December, 1902.		Period October to December, 1902.		
	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Maximum temperature.	Minimum temperature.	Mean temperature.
	°	°	°	°	°	°	°	°	°
Kashgar	+3·9	+2·9	+2·8	+1·0	+4·4	+2·4	+4·4	+2·1	+3·3
Gilgit	+2·0	−0·5	−1·3	−0·3	0	−2·8	+0·2	−1·3	−0·6
Leh	−3·1	+1·7	−2·8	+0·3	−0·7	−4·1	−2·2	−0·7	−1·5
Kailang	+2·5	+0·6	−1·3	−2·8	+1·6	−2·0	+0·9	−1·6	−0·4
Srinagar	+1·0	+2·2	−3·4	+3·0	+3·5	−4·9	+0·4	+0·1	+0·3
Murree	−2·9	−4·1	−3·2	−2·4	−0·8	−1·8	−2·3	−2·8	−2·6
Simla	−2·2	−1·7	−1·1	−0·7	+1·5	+0·4	−0·	−0·7	−0·7
Chakrata	−3·1	−2·2	0	−0·3	+2·3	+1·0	−0·3	−0·5	−0·4
Ranikhet	−2·5	−1·6	−0·8	+0·5	−0·1	+0·3	−1·1	−0·3	−0·7

The year.—The following gives variation data for the mean temperature of Extra-Tropical and Tropical India and also for the whole of India, month by month, during the year:—

Month.	Variation from normal of mean daily temperature in		
	Extra-Tropical India from Table I.	Tropical India from Table II.	Whole India from Table II.
	°	°	°
January	+2·4	+1·6	+2·0
February	+3·4	+0·7	+2·1
March	+2·8	+1·7	+2·3
April	+0·2	+0·9	+0·5
May	+1·0	+1·4	+1·2
June	+0·2	+2·0	+1·0
July	+0·3	+1·2	+0·7
August	+1·0	+2·0	+1·5
September	+0·3	+0·6	+0·4
October	+0·3	+0·8	+0·5
November	+0·3	+0·3	+0·3
December	−0·4	+0·5	+0·2
Whole year	+1·0	+1·1	+1·1

Temperature was, on the average of the whole of India, in excess in every month by amounts averaging 1°·1.

The excess was most marked in Sind, the neighbouring districts of the Punjab and South-West Rajputana, as is shown by the following data:—

Station.	Variation form normal of		
	Maximum temperature.	Minimum temperature.	Mean temperature
	°	°	°
Deesa	+3·2	+2·3	+2·8
Kurrachee	+2·8	+2·3	+2·6
Jacobabad	+3·1	+1·9	+2·5
Mooltan	+2·4	+1·9	+2·2
Ahmedabad	+2·2	+1·7	+2·0

The mean temperature of the year was generally above the normal at the lower Himalayan stations. It was, on

TABLE XVI.—*Normal mean monthly 8 A.M. pressures reduced to 32° F. of 161 stations in India, Burma, etc.*—contd.

Station.	Elevation of bar-cistern above sea-level in feet.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Gaya	375	29·707	29·642	29·539	29·414	29·313	29·202	29·194	29·249	29·361	29·533	29·665	29·728	29·462
Benares	267	·814	·748	·643	·518	·412	·297	·287	·346	·464	·639	·770	·834	·564
Darjeeling	7,376	23·019	22·985	23·005	23·004	22·981	22·925	22·913	22·951	23·029	23·091	23·100	23·075	23·007
Jalpaiguri	284	29·789	29·725	29·627	29·548	29·480	29·368	29·330	29·388	29·493	29·644	29·750	29·814	29·580
Dinajpur	123	·941	·875	·772	·689	·612	·499	·474	·528	·640	·795	·901	·966	·725
Purnea	125	·954	·882	·778	·674	·607	·489	·469	·525	·632	·790	·909	·973	·724
Darbhanga	166	·913	·843	·732	·631	·549	·434	·416	·473	·585	·750	·872	·931	·677
Gorakhpur	256	·809	·739	·627	·515	·433	·315	·304	·361	·477	·644	·770	·830	·569
Bahraich	403	·650	·580	·474	·368	·269	·176	·154	·205	·324	·495	·623	675	·416
Bareilly	569	·477	·413	·314	·195	·102	28·990	28·979	·036	·151	·324	·444	·501	·244
Roorkee	887	·141	·081	28·991	28·880	28·784	·676	·666	28·724	28·841	·005	·119	.164	28·923
Umballa	892	·127	·060	·981	·873	·756	·667	·644	·694	·827	28·991	·113	·160	·908
Ludhiana	812	·226	·166	29·075	·955	·842	·726	·719	·777	·908	29·074	·194	·245	·992
Sialkot	830	·203	·148	·061	·939	·819	·699	·689	·753	·880	·051	·176	·227	·970
Rawalpindi	1,676	28·344	28·298	28·225	·124	·009	27·890	27·869	27·929	·066	28·231	28·339	28·384	·142
Ranikhet	6,069	24·133	24·100	24·107	24·089	24·046	23·964	23·943	23·979	24·062	24·154	24·180	24·168	24·077
Dehra Dun	2,233	27·762	27·712	27·651	27·572	27·493	27·393	27·376	27·424	27·531	27·678	27·765	27·793	27·596
Mussooree	6,705	23·576	23·545	23·554	23·555	23·514	23·440	23·405	23·439	23·522	23·596	23·633	23·620	23·533
Chakrata	7,022	·299	·268	·293	·290	·246	·172	·142	·178	·259	·340	·354	·338	·265
Simla	7,224	·112	·078	·105	·109	·072	·005	22·974	·009	·097	·177	·186	·165	·091
Murree	6,333	·864	·828	·847	·833	·797	·732	23·704	·743	·830	·919	·938	·917	·829
Srinagar	5,204	24·997	24·954	24·930	24·909	24·848	24·731	24·667	24·707	24·846	24·985	25·034	25·044	24·888
Leh	11,503	19·661	19·611	19·692	19·730	19·727	19·680	19·643	19·664	19·730	19·780	19·778	19·736	19·703
Allahabad	309	29·773	29·707	29·605	29·480	29·367	29·252	29·245	29·303	29·422	29·597	29·728	29·794	29·523
Lucknow	368	·699	·636	·529	·407	·305	·193	·183	·242	·362	·531	·662	·722	·456
Cawnpore	416	·648	·579	·478	·358	·245	·140	·121	·191	·310	·487	·612	·678	·404
Mainpuri	516	·543	·473	·376	·259	·143	·040	·027	·082	·210	·376	·506	·570	·300
Agra	555	·526	·466	·370	·242	·130	·015	28·999	·061	·186	·360	·490	·550	·283
Meerut	738	·308	·245	·150	·031	28·929	28·817	·803	28·865	28·983	·151	·271	·327	·073
Delhi	718	·336	·275	·180	·058	·951	·835	·822	·884	29·005	·176	·298	·357	·098
Lahore	702	·349	·297	·197	·066	·940	·820	·808	·873	·005	·182	·314	·373	·102
Cherat	...	25·769	25·729	25·714	25·673	25·593	25·508	25·482	25·522	25·643	25·753	25·815	25·824	25·669
Peshawar	1,110	28·977	28·929	28·845	28·733	28·591	28·441	28·414	28·479	28·632	28·820	28·942	28·997	28·733

TABLE XVI.—*Normal mean monthly 8 A.M. pressures reduced to 32° F. of 161 stations in India, Burma, etc.*—contd.

STATION.	Elevation of bar-cistern above sea-level in feet.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Khushab	612	29·455	29·397	29·290	29·162	29·038	28·900	28·877	28·943	29·088	29·273	29·416	29·487	29·194
Dera Ismail Khan.	594	·507	·460	·357	·228	·084	·929	·912	·978	·120	·318	·465	·532	·241
Montgomery	558	·508	·446	·345	·211	·064	·945	·923	29·001	·142	·328	·474	·540	·244
Mooltan	420	·674	·620	·508	·372	·222	29·079	29·060	·132	·272	·470	·625	·697	·394
Sirsa	662	·394	·337	·240	·113	28·988	28·872	28·857	28·922	·055	·228	·357	·418	·148
Bikaner	771	·288	·224	·132	·013	·891	·776	·756	·822	28·961	·110	·246	·319	·045
Pachpadra	380	·698	·637	·555	·423	29·326	29·193	29·160	29·243	29·377	·535	·640	·712	·458
Kurrachee	30	30·081	30·028	·936	·820	·708	·563	·531	·608	·750	·903	30·024	30·094	·837
Hyderabad (Sind.)	96	·013	29·959	·847	·719	·593	·448	·415	·493	·633	·809	29·948	·031	·742
Jacobabad	186	29·918	·860	·740	·604	·458	·313	·288	·366	·515	·711	·861	29·937	·631
Quetta	5,502	24·687	24·660	24·653	24·632	24·584	24·480	24·426	24·479	24·603	24·728	24·769	24·746	24·621
Chaman	4,311	25·772	25·723	25·716	25·696	25·631	25·488	25·439	25·487	25·648	25·799	25·838	25·825	25·672
Colombo	40	29·950	29·948	29·926	29·881	29·856	29·860	29·875	29·885	29·910	29·916	29·917	29·933	29·905
Trivandrum	198	·772	·764	·737	·695	·687	·674	·694	·706	·730	·740	·755	·775	·727
Cochin	10	·991	·981	·951	·901	·874	·871	·895	·907	·931	·934	·949	·974	·930
Calicut	27	·984	·969	·935	·882	·854	·838	·865	·880	·907	·915	·934	·969	·911
Mangalore	65	·954	·937	·901	·845	·816	·783	·807	·833	·866	·878	·902	·941	·872
Mercara	3,781	26·293	26·285	26·266	26·234	26·199	26·158	26·167	26·181	26·211	26·236	26·257	26·286	26·231
Karwar	44	29·979	29·958	29·915	29·860	29·821	29·766	29·786	29·819	29·861	29·886	29·926	29·971	29·879
Goa	199	·838	·812	·767	·714	·672	·606	·620	·655	·708	·735	·783	·832	·729
Mormugao	60	·959	·933	·889	·840	·811	·735	·751	·796	·845	·872	·925	·968	·860
Ratnagiri	110	·909	·882	·840	·781	·743	·660	·667	·709	·763	·804	·858	·906	·794
Bombay	37	30·011	·981	·931	·867	·822	·709	·702	·757	·834	·898	·962	30·011	·874
Surat	39	·023	·989	·932	·851	·787	·660	·633	·699	·800	·897	·976	·027	·856
Bhavnagar Para.	55	·041	·991	·927	·840	·785	·653	·622	·712	·803	·906	·995	·047	·860
Veraval	8	·041	30·003	·935	·858	·809	·660	·638	·724	·822	·913	·993	·046	·870
Rajkot	429	29·630	29·596	·528	·446	·359	·228	·198	·274	·384	·503	·585	29·638	·447
Bhuj	395	·677	·632	·554	·456	·360	·233	·197	·270	·397	·528	·628	·685	·468
Ahmedabad	163	·908	·855	·791	·695	·637	·495	·474	·543	·664	·773	·865	·919	·718
Deesa	466	·596	·553	·480	·388	·303	·180	·136	·211	·335	·459	·562	·612	·401
Tinnevelly	168	·871	·834	·784	·721	·682	·655	·671	·686	·717	·754	·809	·855	·753
Madura	447	·584	·564	·518	·444	·384	·356	·374	·391	·421	·464	·510	·559	·464

TABLE XVI.—*Normal mean monthly 8 A.M. pressures reduced to 32° F. of 161 stations in India, Burma, etc.*—contd.

Station.	Elevation of bar-cistern above sea-level in feet.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Trichinopoly .	255	29·788	29·769	29·719	29·644	29·578	29·551	29·569	29·587	29·621	29·664	29·713	29·766	29·664
Coimbatore .	1,348	28·683	28·663	28·622	28·557	28·506	28·475	28·491	28·509	28·541	28·578	28·617	28·664	28·576
Salem . .	940	29·126	29·102	29·054	·986	·929	·900	·916	·934	·968	29·007	29·048	29·104	29·006
Wellington .	6,200	24·302	24·301	24·296	24·267	24·234	24·184	24·184	24·198	24·232	24·262	24·279	24·302	24·253
Mysore .	2,518	27·522	27·492	27·463	27·424	27·395	27·345	27·365	27·384	27·416	27·444	27·486	27·520	27·438
Bangalore .	3,021	·038	·016	26·986	26·942	26·896	26·850	26·862	26·883	26·919	26·956	26·991	·030	26·947
Hassan .	3,091	26·959	26·941	·914	·874	·845	·785	·802	·827	·858	·890	·935	26·963	·883
Chitaldroog .	2,405	27·619	27·590	27·556	27·512	27·476	27·406	27·422	27·449	27·495	27·538	27·595	27·627	27·524
Cuddapah .	433	29·618	29·563	29·497	29·435	29·378	29·332	29·346	29·381	29·423	29·482	29·564	29·626	29·470
Kurnool .	924	·118	·064	·000	28·942	28·888	28·832	28·842	28·878	28·920	28·990	·072	·130	28·973
Bellary .	1,475	28·555	28·515	28·460	·399	·351	·299	·308	·341	·385	·443	28·510	28·560	·427
Raichur .	1,326	·697	·641	·590	·530	·487	·423	·438	·470	·519	·585	·666	·711	·563
Hyderabad (Deccan.)	1,690	·346	·287	·238	·179	·110	·038	·042	·079	·140	·229	·317	·367	·198
Gulbarga .	1,502	·531	·480	·429	·370	·320	·249	·249	·286	·344	·427	·506	·561	·396
Belgaum .	2,539	27·475	27·450	27·416	27·365	27·322	27·254	27·254	27·289	27·339	27·391	27·439	27·475	27·372
Bijapur .	1,946	28·078	28·030	·989	·936	·898	·814	·823	·860	·917	·982	28·056	28·098	·957
Sholapur .	1,590	·446	·407	28·350	28·285	28·231	28·165	28·161	28·200	28·261	28·339	·406	·456	28·309
Poona .	1,840	·196	·165	·119	·062	·012	27·911	27·901	27·949	·023	·103	·169	·210	·068
Ahmednagar	2,152	27·879	27·838	27·794	27·746	27·693	·596	·583	·639	27·706	27·800	27·869	27·906	27·754
Malegaon .	1,430	28·615	28·572	28·520	28·446	28·380	28·275	28·254	28·312	28·394	28·508	28·586	28·630	28·458
Buldana .	2,132	27·905	27·872	27·818	27·744	27·674	27·578	27·563	27·617	27·691	27·804	27·879	27·922	27·756
Chikalda .	3,642	26·462	26·430	26·396	26·339	26·266	26·156	26·128	26·173	26·257	26·382	26·446	26·479	26·326
Akola . .	930	29·119	29·065	29·000	28·914	28·834	28·745	28·737	28·789	28·870	28·998	29·090	29·142	28·942
Amraoti .	1,215	28·822	28·766	28·707	·622	·538	·453	·441	·489	·569	·706	28·800	28·848	·647
Khandwa .	1,044	29·001	·955	·890	·800	·721	·621	·602	·659	·749	·879	·975	29·021	·823
Nagpur .	1,025	·021	·965	·896	·802	·703	·617	·608	·656	·739	·886	·988	·042	·827
Indore .	1,823	28·206	·168	·111	·032	27·952	27·846	27·819	27·877	27·973	·108	·189	28·226	·042
Neemuch .	1,630	·410	·366	·305	·215	28·126	28·019	·987	28·050	28·158	·305	·398	·438	·231
Mount Abu .	3,945	26·138	26·110	26·092	26·053	25·980	25·860	25·816	25·866	25·983	26·112	26·163	26·168	26·028
Ajmer .	1,611	28·442	28·395	28·328	28·231	28·127	28·014	27·982	28·045	28·167	28·325	28·429	28·471	28·246
Sambhar .	1,254	·787	·734	·659	·557	·448	·333	28·308	·372	·499	·658	·768	·817	·578
Jaipur .	1,431	·615	·566	·494	·395	·292	·175	·150	·215	·343	·498	·601	·648	·416
Saugor .	1,807	·230	·175	·118	·031	27·935	27·824	27·802	27·857	27·962	·117	·209	·253	·043

TABLE XVI.—*Normal mean monthly 8 A.M. pressures reduced to 32° F. of 161 stations in India, Burma, etc.*—concld.

Station.	Elevation of bar-cistern above sea-level in feet.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Sutna . .	1,040	29·012	28·955	28·876	28·761	28·650	28·536	28·525	28·582	28·695	28·868	28·982	29·037	28·790
Nowgong .	757	·316	29·256	29·166	29·048	·935	·826	·811	·870	·985	29·156	29·277	·338	29·082
Jhansi .	858	·214	·160	·077	28·958	·845	·731	·713	·771	·890	·058	·177	·237	28·986
Hoshangabad	1,006	·051	·002	28·932	·836	·746	·641	·622	·678	·776	28·930	·029	·079	·860
Pachmarhi .	3,528	26·557	26·521	26·495	26·444	26·367	26·254	26·219	26·276	26·363	26·492	26·553	26·579	26·427
Jubbulpore .	1,327	28·717	28·664	28·595	28·497	28·395	28·287	28·271	28·322	28·426	28·589	28·691	28·742	28·516
Seoni . .	2,033	·002	27·957	27·902	27·823	27·731	27·624	27·607	27·652	27·744	27·895	27·983	·025	27·829
Chanda .	634	29·422	29·364	29·288	29·199	29·101	29·023	29·023	29·072	29·147	29·282	29·382	29·442	29·229
Raipur .	970	·080	·025	28·950	28·852	28·747	28·651	28·642	28·689	28·781	28·942	·044	·101	28·875
Sambalpur .	486	·588	·528	29·442	29·340	29·232	29·129	29·120	29·170	29·274	29·432	·548	·610	29·368
Chaibassa .	760	·292	·231	·144	·042	28·940	28·831	28·811	28·860	28·977	·143	·247	·311	·069
Ranchi .	2,128	27·883	27·837	27·776	27·699	27·607	27·498	27·472	27·519	27·629	27·784	27·866	27·908	27·707
Hazaribagh .	2,007	28·009	·960	·895	·808	·718	·607	·594	·641	·747	897	·990	28·028	·825
Balasore .	48	30·039	29·973	29·876	29·774	29·672	29·560	29·536	29·588	29·703	29·873	29·988	30·061	29·803
False Point .	21	·061	30·001	·916	·822	·716	·601	·587	·634	·726	·886	30·000	·072	·835
Cuttack .	80	·002	29·937	·852	·753	·646	·532	·521	·569	·661	·825	29·942	·012	·771
Gopalpur .	21	·058	·993	·914	·825	·711	·615	·598	·640	·739	·892	30·010	·080	·840
Waltair .	226	29·851	·798	·731	·647	·537	·429	·429	·470	·541	·678	29·776	29·846	·644
Cocanada .	26	30·049	·997	·934	·863	·749	·666	·657	·693	·762	·879	·980	30·050	·857
Masulipatam	15	·057	30·009	·947	·867	·756	·691	·702	·734	·786	·888	·980	·050	·872
Nellore .	71	29·986	29·933	·867	·796	·703	·658	·674	·707	·751	·830	·919	29·986	·818
Madras .	22	30·041	30·005	·952	·877	·784	·746	·766	·790	·827	·894	·957	30·018	·888
Cuddalore .	12	·032	·001	·941	·880	·795	·765	·785	·809	·844	·898	·964	·022	·895
Negapatam .	31	·002	29·981	·938	·868	·794	·767	·786	·806	·840	·883	·928	29·977	·881
Pamban .	37	29·987	·962	·916	·858	·805	·778	·797	·813	·847	·881	·928	·972	·879
Trincomalee .	12	·986	·974	·933	·871	·812	·795	·812	·832	·854	·891	·930	·965	·888
Port Blair .	61	·936	·927	·902	·853	·792	·757	·768	·785	·818	·856	·883	·920	·850
Amini Devi .	13	30·005	·983	·955	·895	·881	·835	·868	·891	·926	·930	·961	·996	·927
Perim . .	201	29·830	·788	·736	·688	·631	·537	·525	·540	·608	·734	·802	·842	·688
Aden . .	94	·982	·947	·897	·841	·768	·647	·620	·650	·737	·873	·951	·995	·826
Muscat .	20	30·121	30·054	·971	·869	·734	·553	·516	·593	·755	·950	30·068	30·117	·858
Jask . .	...	·127	·052	·988	·882	·751	·567	·530	·608	·748	·936	·073	·124	·866
Bushire .	14	·134	·076	·987	·891	·767	·574	·481	·544	·729	·945	·074	·134	·861
Zanzibar .	73	29·911	29·908	·905	·936	30·007	30·076	30·098	30·086	30·065	30·014	29·962	29·929	·991

In the following table the normal 8 A.M. pressure reduced to sea-level and corrected to constant gravity at Latitude 45° is given for each month of the year for 144 stations in India and Burma.

TABLE XVII.—*Normal mean monthly 8 A. M. pressure (reduced to sea-level and constant gravity at Latitude 45°) of 144 stations in India, Burma, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	"	"	"	"	"	"	"	"	"	"	"	"	"
	29+	29+	29+	29+	29+	29+	29+	29+	29+	29+	29+	29+	29+
Mergui	·936	·916	·890	·849	·811	·798	·795	·815	·838	·865	·891	·931	·861
Tavoy	·952	·935	·904	·871	·823	·795	·796	·814	·844	·876	·921	·956	·874
Moulmein	·968	·927	·893	·849	·795	·754	·750	·770	·812	·868	·919	·976	·857
Rangoon	·973	·937	·899	·846	·783	·735	·734	·760	·801	·870	·923	·976	·853
Bassein	·965	·925	·885	·831	·763	·711	·710	·737	·779	·856	·913	·970	·837
Diamond Island	·963	·936	·900	·851	·774	·718	·722	·748	·788	·857	·908	·962	·844
Akyab	·998	·957	·908	·841	·756	·664	·652	·695	·761	·861	·933	·994	·835
Taungoo	·980	·933	·881	·828	·767	·716	·715	·742	·788	·869	·933	·992	·845
Thayetmyo	·990	·929	·872	·807	·747	·688	·682	·715	·773	·862	·938	1·003	·834
Bhamo	1·022	·951	·886	·813	·745	·663	·645	·682	·775	·888	1·003	1·070	·845
Kindat	1·060	·979	·890	·804	·718	·638	·615	·661	·758	·883	1·012	1·087	·842
Minbu	1·003	·928	·864	·798	·731	·674	·662	·690	·775	·876	·979	1·032	·834
Yamethin	1·000	·931	·872	·805	·750	·699	·693	·717	·794	·890	·982	1·032	·847
Mandalay	·996	·932	·863	·794	·741	·672	·656	·694	·774	·869	·962	1·030	·832
Chittagong	1·016	·969	·902	·827	·738	·632	·613	·662	·750	·864	·954	1·015	·829
Silchar	1·043	·995	·917	·834	·755	·643	·623	·674	·759	·883	·979	1·043	·846
Barisal	1·016	·959	·875	·791	·702	·592	·563	·610	·726	·858	·949	1·023	·805
Narayanganj	1·018	·963	·876	·785	·705	·588	·572	·621	·725	·857	·957	1·021	·807
Mymensingh	1·036	·974	·885	·795	·724	·616	·583	·636	·742	·880	·977	1·048	·825
Saugor Island	1·025	·961	·872	·772	·678	·552	·532	·590	·691	·849	·965	1·036	·794
Calcutta	1·033	·970	·872	·769	·675	·553	·536	·591	·701	·855	·971	1·041	·797
Jessore	1·026	·966	·872	·775	·690	·569	·552	·605	·713	·860	·966	1·031	·802
Berhampore	1·037	·973	·864	·756	·677	·560	·544	·601	·708	·865	·980	1·049	·801
Bogra	1·010	·948	·844	·764	·676	·574	·547	·604	·714	·855	·961	1·030	·794
Sibsagar	1·083	1·020	·929	·844	·763	·640	·621	·672	·771	·917	1·036	1·098	·866
Dhubri	1·042	·971	·874	·792	·727	·606	·578	·632	·739	·885	·994	1·059	·825
Burdwan	1·042	·974	·871	·758	·667	·553	·535	·593	·709	·864	·982	1.055	·800
Patna	1·060	·982	·865	·743	·649	·537	·524	·585	·698	·870	1·008	1·080	·800
Gaya	1·061	·991	·877	·741	·637	·527	·521	·577	·691	·870	1·011	1·082	·799
Benares	1·057	·987	·874	·741	·631	·515	·507	·567	·686	·867	1·006	1·077	·793

TABLE XVII.—*Normal mean monthly 8 A. M. pressure (reduced to sea-level and constant gravity at Latitude 45°) of 144 stations in India, Burma, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+
Jalpaiguri	1·050	·983	·879	·794	·724	·609	·571	·629	·736	·891	1·003	1·074	·829
Dinajpur	1·027	·960	·854	·768	·690	·576	·551	·605	·718	·875	·983	1·052	·805
Purnea	1·044	·969	·861	·754	·687	·568	·547	·603	·712	·871	·993	1·061	·806
Darbhanga	1·045	·973	·857	·753	·668	·552	·535	·592	·706	·874	·999	1·062	·801
Gorakhpur	1·043	·969	·849	·730	·646	·527	·516	·575	·692	·863	·996	1·062	·789
Bahraich	1·046	·969	·852	·732	·628	·535	·514	·567	·688	·867	1·005	1·068	·789
Bareilly	1·055	·983	·868	·731	·628	·515	·507	·566	·684	·871	1·006	1·079	·791
Roorkee	1·071	·999	·883	·741	·627	·516	·512	·574	·699	·887	1·027	1·093	·802
Umballa	1·061	·983	·878	·744	·604	·518	·495	·547	·690	·878	1·027	1·094	·793
Ludhiana	1·076	1·005	·890	·742	·611	·496	·488	·551	·690	·878	1·023	1·094	·795
Sialkot	1·076	1·011	·899	·749	·606	·479	·477	·547	·682	·876	1·026	1·100	·794
Rawalpindi	1·134	1·066	·950	·800	·640	·502	·489	·559	·719	·932	1·091	1·173	·838
Dehra Dun	1·085	1·013	·897	·766	·650	·544	·536	·593	·714	·902	1·038	1·109	·821
Allahabad	1·060	·989	·878	·743	·625	·511	·506	·566	·686	·866	1·006	1·080	·793
Lucknow	1·054	·986	·866	·734	·627	·514	·507	·567	·689	·865	1·008	1·077	·791
Cawnpore	1·051	·976	·861	·728	·608	·503	·487	·559	·680	·866	1·003	1·080	·784
Mainpuri	1·059	·981	·869	·735	·609	·505	·496	·554	·685	·864	1·009	1·084	·788
Agra	1·084	1·017	·904	·758	·635	·518	·507	·573	·702	·887	1·033	1·107	·810
Meerut	1·075	1·001	·882	·738	·623	·509	·498	·564	·688	·877	1·019	1·093	·797
Delhi	1·074	1·003	·887	·743	·622	·503	·495	·560	·687	·874	1·017	1·092	·796
Lahore	1·086	1·023	·900	·747	·604	·476	·467	·537	·676	·875	1·030	1·109	·794
Peshawar	1·169	1·108	·992	·847	·674	·508	·484	·556	·727	·949	1·107	1·188	·859
Khushab	1·096	1·029	·906	·750	·610	·468	·447	·518	·670	·872	1·038	1·128	·794
D. I. Khan	1·103	1·047	·926	·778	·618	·456	·441	·510	·661	·877	1·045	1·129	·799
Montgomery	1·084	1·013	·893	·738	·578	·454	·435	·517	·663	·865	1·031	1·114	·782
Mooltan	1·102	1·039	·913	·765	·604	·457	·440	·514	·659	·872	1·040	1·123	·794
Sirsa	1·082	1·013	·896	·745	·603	·483	·472	·541	·682	·872	1·023	1·103	·793
Bikaner	1·085	1·011	·894	·752	·615	·495	·480	·552	·697	·861	1·017	1·113	·798
Pachpadra	1·068	1·001	·905	·760	·659	·523	·493	·578	·715	·880	·997	1·079	·805
Kurrachee	1·063	1·010	·918	·801	·689	·543	·512	·589	·731	·884	1·006	1·076	·819
Hyderabad (Sind)	1·069	1·014	·899	·768	·641	·495	·462	·541	·682	·860	1·001	1·086	·793
Jacobabad	1·082	1·021	·894	·752	·601	·454	·430	·510	·661	·862	1·018	1·100	·782
Colombo	·916	·914	·892	·847	·822	·826	·841	·851	·876	·882	·883	·899	·871

TABLE XVII.—*Normal mean monthly & annual pressures (reduced to sea-level and constant gravity at Latitude 45°) of 144 stations in India, Burma, etc.*—contd.

Station	Year.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	"	"	"	"	"	"	"	"	"	"	"	"	"
	+60	+60	+60	+60	+60	+60	+60	+60	+60	+60	+60	+60	+60
Trivandrum	1·014	993·03	895·10	866·16	824·18	816·18	825·18	836·18	860·17	870·83	885·02	906·	914·
Cochin	1·022	929·13	919·12	889·18	889·18	812·18	809·18	833·18	845·17	872·00	887·02	912·	928·
Calicut	1·061	941·13	926·11	892·12	889·11	811·11	825·11	822·11	837·10	872·00	891·01	926·	939·
Mangalore	1·062	952·14	935·14	898·16	842·13	813·13	781·	805·13	831·13	876·13	900·01	939·	948·
Karwar	1·062	956·10	935·10	891·10	836·10	797·10	742·10	792·10	795·10	862·10	903·01	948·	953·
Goa	1·063	978·02	952·07	904·03	849·10	806·10	742·10	756·10	792·10	844·10	920·01	971·	965·
Mormugao	1·070	955·06	929·11	884·11	835·10	806·10	730·10	746·10	791·10	840·10	920·02	964·	956·
Ratnagiri	1·063	960·27	933·27	889·00	829·10	795·10	708·10	715·10	757·10	811·10	907·01	956·	942·
Bombay	1·061	989·27	959·18	908·00	844·10	799·10	686·10	679·10	723·10	781·10	939·00	989·	951·
Surat	1·064	1·007·13	973·18	914·00	833·10	768·10	642·10	615·10	681·10	782·00	959·02	1·010·	939·
Bhavnagar Port	1·054	1·044·06	994·06	930·12	847·10	786·10	654·10	621·10	711·10	805·10	998·11	1·050·	802·
Veraval	1·053	1·001·18	963·12	895·10	818·10	752·10	629·10	603·10	682·10	782·00	953·13	1·006·	830·
Rajkot	1·060	1·036·18	998·11	920·11	838·10	787·10	605·10	638·10	656·10	768·10	978·13	1·040·	838·
Bhuj	1·060	1·049·06	999·06	911·18	808·10	804·10	576·10	543·10	619·10	747·10	987·00	1·054·	823·
Ahmedabad	1·061	1·029·12	974·12	906·00	808·10	747·10	694·10	584·10	654·10	736·10	885·06	1·038·	832·
Deesa	1·058	1·048·13	999·13	912·00	808·10	741·10	596·10	585·10	634·10	789·10	886·06	1·060·	832·
Tinnevelly	1·031	1·071·00	1·034·13	883·15	818·10	778·10	751·10	768·10	783·10	824·10	853·10	955·	832·
Madura	1·041	1·077·13	1·054·17	904·12	826·10	764·10	733·10	755·10	775·10	804·17	850·17	930·	846·
Trichinopoly	1·043	1·082·10	1·062·17	909·18	831·10	764·10	737·10	756·10	775·10	839·10	854·10	960·	854·
Coimbatore	1·040	1·005·14	1·078·17	925·17	850·10	795·10	762·10	789·10	807·10	842·10	888·13	981·	879·
Salem	1·030	1·029·17	998·13	940·16	862·10	803·10	777·10	798·10	817·10	853·10	894·13	1·004·	833·
Mysore	1·028	1·007·17	952·10	902·17	848·10	817·10	778·10	801·10	832·10	865·10	892·03	998·	886·
Bangalore	1·022	1·022·13	970·	905·13	839·10	792·10	762·10	787·10	813·10	851·10	885·00	1·007·	838·
Hassan	1·011	1·004·13	965·13	909·13	852·10	816·10	777·10	806·10	833·10	866·17	896·01	1·004·	840·
Chitaldroog	1·011	1·078·13	927·	869·13	820·10	788·10	746·10	754·10	785·10	835·10	870·13	992·	845·
Cuddapah	1·003	1·003·13	942·	869·13	809·10	743·10	700·10	717·10	754·10	797·10	866·10	1·010·	847·
Kurnool	1·003	1·017·13	950·	869·13	809·10	744·10	699·10	708·10	748·10	792·10	863·13	1·028·	838·
Bellary	1·013	1·014·13	955·	880·13	805·10	756·10	711·10	725·10	763·10	812·10	871·13	1·018·	840·
Raichur	1·007	1·009·13	937·	868·13	793·10	741·10	693·10	716·10	782·10	804·10	868·13	1·023·	848·
Hyderabad (Deccan)	1·007	1·040·13	957·	882·13	798·10	715·10	661·10	676·10	720·10	783·10	877·13	1·062·	854·
Gulbarga	1·008	1·027·13	955·	880·13	805·10	759·10	694·10	702·10	742·10	803·10	887·13	1·084·	858·
Belgaum	1·001	993·13	950·	888·13	822·10	776·10	718·10	731·10	771·10	828·10	871·13	934·	987·
Bijapur	1·000	1·015·13	944·	875·13	803·10	764·10	692·10	710·10	753·10	813·10	879·13	974·	1·036·

TABLE XVII.—*Normal mean monthly 8 A.M. pressure (reduced to sea-level and constant gravity at Latitude 45°) of 144 stations in India, Burma, etc.*—contd.

STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December	YEAR.
	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+
Sholapur	1·029	·975	·892	·805	·753	·693	·696	·742	·809	·885	·970	1·037	·857
Poona	1·054	1·007	·926	·839	·784	·686	·686	·742	·820	·904	·996	1·061	·875
Ahmednagar	1·046	·982	·893	·811	·754	·670	·668	·733	·807	·901	1·000	1·066	·861
Malegaon	1·065	1·005	·919	·814	·742	·645	·631	·697	·784	·903	1·007	1·073	·857
Buldana	1·044	·999	·902	·790	·712	·623	·624	·693	·774	·848	·993	1·060	·839
Akola	1·046	·980	·893	·783	·696	·614	·614	·672	·755	·892	1·002	1·067	·835
Amraoti	1·039	·971	·888	·779	·684	·612	·611	·665	·746	·887	1·000	1·063	·829
Khandwa	1·058	·999	·909	·793	·708	·613	·601	·664	·757	·896	1·013	1·074	·840
Nagpur	1·048	·979	·889	·771	·657	·584	·586	·638	·722	·879	1·000	1·068	·818
Indore	1·070	1·011	·910	·786	·695	·597	·585	·654	·755	·898	1·010	1·079	·838
Neemuch	1·089	1·023	·920	·786	·687	·583	·564	·637	·750	·908	1·034	1·107	·841
Ajmer	1·132	1·058	·943	·798	·674	·557	·540	·613	·743	·930	1·079	1·154	·852
Sambhar	1·096	1·025	·913	·772	·643	·524	·509	·581	·715	·898	1·042	1·119	·820
Jaipur	1.102	1·033	·920	·780	·660	·537	·525	·599	·734	·909	1·047	1·128	·831
Saugor	1·077	1·003	·903	·769	·651	·550	·549	·614	·724	·895	1·017	1·093	·820
Sutna	1·081	1·008	·901	·754	·626	·517	·519	·580	·697	·887	1·026	1·103	·808
Nowgong	1·086	1·014	·902	·760	·632	·525	·520	·583	·701	·887	1·027	1·105	·812
Jhansi	1·084	1·018	·909	·765	·638	·527	·519	·582	·704	·884	1·023	1·102	·813
Hoshangabad	1·077	1·014	·920	·796	·692	·594	·587	·648	·749	·917	1·036	1·102	·844
Jubbulpore	1·079	1·008	·908	·772	·649	·549	·549	·606	·714	·899	1·031	1·105	·822
Seoni	1·066	·997	·898	·772	·650	·564	·570	·624	·719	·888	1·013	1·088	·821
Chanda	1·032	·965	·876	·772	·664	·593	·601	·653	·729	·870	·983	1·053	·816
Raipur	1·048	·980	·884	·761	·643	·558	·560	·611	·703	·876	·997	1·070	·808
Sambalpur	1·050	·982	·886	·773	·658	·558	·554	·605	·709	·874	1·001	1·072	·810
Chaibassa	1·045	·973	·868	·749	·639	·533	·517	·568	·688	·864	·985	1·065	·791
Ranchi	1·053	·986	·869	·751	·640	·542	·529	·582	·699	·877	·996	1·076	·800
Hazaribagh	1·062	·992	·875	·741	·637	·534	·535	·589	·702	·872	1·003	1·078	·802
Balasore	1·035	·967	869	·767	·663	·552	·528	·580	·696	·866	·982	1·057	·797
False Point	1·025	·964	·879	·785	·678	·564	·550	·597	·689	·849	·963	1·035	·798
Cuttack	1·028	·962	·876	·775	·668	·554	·544	·592	·683	·849	·967	1·038	·795
Gopalpur	1·019	·954	·875	·786	·672	·576	·559	·601	·700	·853	·971	1·041	·801
Waltair	1·024	·969	·900	·814	·702	·594	·594	·636	·708	·846	·946	1·018	·813
Cocanada	1·010	·958	·895	·824	·710	·621	·618	·654	·723	·840	·941	1·011	·817

TABLE XVII.—*Normal mean monthly 8 A.M. pressure (reduced to sea-level and constant gravity at Latitude 45°) of 144 stations in India, Burma etc.*—concld.

Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+	" 29+
Masulipatam	1·007	·959	·897	·816	·705	·640	·652	·684	·736	·838	·930	1·000	·822
Nellore	·992	·938	·872	·800	·707	·661	·678	·712	·756	·835	·924	·992	·822
Madras	·994	·958	·905	·830	·736	·698	·719	·743	·780	·847	·910	·971	·841
Cuddalore	·974	·942	·882	·821	·736	·706	·726	·750	·788	·839	·905	·964	·836
Negapatam	·962	·941	·898	·827	·753	·726	·746	·766	·800	·843	·888	·937	·841
Pamban	·951	·926	·880	·822	·769	·742	·761	·777	·811	·845	·892	·936	·843
Trincomalee	·924	·912	·871	·809	·750	·733	·756	·770	·792	·829	·868	·903	·826
Port Blair	·928	·919	·894	·845	·784	·749	·760	·777	·810	·848	·875	·912	·842
Amini Devi	·946	·924	·896	·836	·822	·776	·809	·832	·867	·871	·902	·937	·868
Perim	·968	·925	·872	·822	·764	·668	·636	·671	·741	·867	·938	·979	·823
Aden	1·010	·974	·924	·867	·793	·671	·644	·675	·761	·898	·978	1·022	·851
Muscat	1·089	1·022	·939	·837	·701	·520	·483	·560	·722	·918	1·036	1·085	·826
Jask	1·097	1·022	·958	·852	·721	·537	·500	·578	·718	·906	1·043	1·094	·836
Bushire	1·107	1·049	·960	·864	·740	·547	·454	·517	·702	·918	1·047	1·107	·834
Zanzibar	·911	·908	·905	·936	1·007	1·076	1·099	1·087	1·065	1·014	·962	·929	·992

TABLE XVIII.—*Comparison of monthly mean pressures in 1902 with the averages of past years.*

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Burma Coast and Bay Islands.	Port Blair	—·005	+·082	—·002	+·014	+·028	+·021	+·013	+·001	+·032	+·072	+·044	—·009	+·024
	Rangoon	?	?	—·035	—·008	—·013	—·029	—·009	—·034	—·004	+·052	+·031	—·041	?
	Diamond Island	—·029	+·066	—·021	+·007	—·002	—·006	—·003	—·022	+·008	+·060	+·031	—·037	+·004
	Akyab	—·029	+·084	—·012	+·016	+·001	—·012	—·015	—·012	+·010	+·082	+·036	—·035	+·010
Bengal and Orissa	Chittagong	—·039	+·072	—·014	+·015	+·008	—·002	—·027	—·015	—·008	+·080	+·046	—·024	+·008
	Calcutta (Alipore)	—·016	+·096	—·017	+·011	+·021	+·027	—·009	+·019	+·007	+·098	+·040	—·020	+·021
	Saugor Island	—·006	+·094	—·016	+·012	+·010	+·020	—·013	+·015	+·002	+·096	+·042	—·022	+·019
	False Point	—·016	+·088	—·023	+·002	—·001	+·009	—·016	—·005	—·001	+·093	+·036	—·029	+·011
Gangetic Plain and Chota Nagpur.	Hazaribagh	—·009	+·091	—·023	—·015	—·007	+·014	—·027	+·013	—·003	+·081	+·026	—·039	+·009
	Darbhanga	—·024	+·079	—·026	+·016	—·002	+·001	—·025	+·009	—·008	+·081	+·035	—·029	+·008
	Allahabad	—·034	+·067	—·047	—·028	—·005	+·032	—·021	+·028	+·011	+·091	+·047	—·004	+·011
Upper Sub-Himalayas.	Dehra Dun	—·004	+·080	—·023	—·011	—·013	—·001	—·024	+·004	—·012	+·062	+·027	—·028	+·005
	Roorkee	—·014	+·075	—·036	—·014	—·012	+·012	—·018	+·001	—·011	+·061	+·024	—·032	+·003
	Meerut	—·030	+·064	—·037	—·021	—·013	+·035	—·024	—·010	—·016	+·063	+·020	—·031	—·001
	Lahore	—·024	+·067	—·018	—·021	—·014	+·031	—·024	+·006	—·003	+·064	+·022	—·022	+·005
	Ludhiana	—·014	+·078	—·018	—·011	—·007	+·039	—·020	+·018	—·003	+·069	+·031	—·039	+·010

TABLE XVIII.—*Comparison of monthly mean pressures in 1902 with the averages of past years*—contd.

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
North-West Frontier, Indus Valley and North-West Rajputana.	Peshawar	−·045	+·059	−·026	−·017	−·020	+·009	−·017	+·009	−·014	+·053	+·034	−·031	−·001
	Jacobabad	−·029	+·061	−·032	−·028	−·019	+·036	−·034	+·001	−·012	+·041	+·022	−·030	−·002
	Kurrachee	−·007	+·066	−·028	−·030	+·006	+·011	−·026	+·014	−·020	+·053	+·033	−·026	+·004
East Rajputana, Central India and Gujarat.	Jaipur	−·008	+·074	−·018	−·018	+·002	+·033	−·027	+·011	−·006	+·068	+·041	−·014	+·012
	Deesa	−·012	+·062	−·031	−·041	+·006	+·037	−·042	−·003	−·026	+·051	+·033	−·023	+·001
Deccan	Belgaum	−·011	+·052	−·010	−·008	+·016	+·035	−·027	0	−·006	+·059	+·039	−·015	+·012
	Sholapur	−·018	+·067	−·020	−·012	+·006	+·064	−·036	−·011	−·015	+·054	+·038	−·028	+·005
	Akola	−·011	+·079	−·012	−·011	+·014	+·047	−·030	+·003	+·004	+·077	+·048	−·015	+·016
	Buldana	−·007	+·073	−·008	−·010	+·012	+·044	−·032	+·003	−·004	+·065	+·035	−·022	+·012
	Khandwa	−·008	+·077	−·016	−·021	+·015	+·044	−·031	+·009	0	+·073	+·048	−·003	+·016
	Nagpur	−·007	+·095	−·002	−·005	+·001	+·043	−·016	+·015	+·028	+·108	+·053	−·007	+·[illegible]
	Hyderabad (Deccan)	−·006	+·080	+·006	+·006	+·001	+·049	−·019	+·006	+·006	+·079	+·026	−·043	+·016
West Coast	Bombay	−·019	+·066	−·020	0	+·027	+·043	−·037	+·005	−·011	+·049	+·026	−·031	+·008
	Karwar	−·005	+·067	+·002	+·009	+·025	+·037	−·018	−·001	+·002	+·046	+·028	−·026	+·014
South India	Salem	−·010	+·066	−·023	−·010	−·007	+·004	−·022	−·029	−·012	+·049	+·026	−·022	+·001
	Chitaldroog	+·002	+·062	+·004	−·001	−·001	+·038	−·027	−·003	+·002	+·051	+·016	−·039	+·009
	Bangalore	−·009	+·065	−·009	+·007	+·016	+·030	−·014	−·004	+·002	+·049	+·032	−·016	+·012
	Hassan	+·007	+·059	+·008	+·009	+·006	+·039	−·016	−·007	+·005	+·040	+·015	−·024	+·012
	Mysore	+·003	+·057	+·007	+·006	−·001	+·033	−·013	−·012	+·012	+·041	+·014	−·024	+·010
	Madras	−·005	+·080	−·015	+·006	+·003	+·030	−·016	−·013	+·008	+·076	+·032	−·019	+·014
	Bellary	−·016	+·077	−·004	−·005	+·012	+·038	−·016	−·013	−·004	+·055	+·035	−·031	+·011
Hill Station, Baluchistan.	Quetta	+·051	+·108	+·006	+·006	+·018	+·007	+·006	+·023	−·002	+·052	+·038	−·010	+·025
Hill Stations, Northern India.	Leh	+·095	+·142	−·004	−·028	+·038	+·020	−·017	+·023	+·006	+·041	+·042	−·003	+·030
	Srinagar	+·016	+·091	−·016	−·013	−·030	−·023	−·019	+·009	+·060	+·058	+·055	−·028	+·021
	Simla (Ridge)	+·036	+·127	+·022	+·005	+·015	+·015	−·009	+·034	+·008	+·061	+·049	−·016	+·029
	Chakrata	+·008	+·106	+·010	−·007	+·012	+·011	−·009	+·020	−·004	+·049	+·031	−·017	+·018
	Ranikhet	+·014	+·102	+·010	+·003	+·010	+·005	−·023	+·012	+·001	+·069	+·040	−·013	+·019
	Darjeeling	+·018	+·082	+·008	−·026	+·005	−·009	−·017	+·001	−·005	+·045	+·013	−·037	+·007
Hill Stations, Central India.	Mount Abu	−·010	+·068	+·001	−·031	+·006	+·043	−·020	+·003	−·017	+·038	+·027	−·035	+·006
	Pachmarhi	−·001	+·084	+·004	−·011	+·015	+·048	−·020	+·017	−·002	+·071	+·045	−·027	+·019
	Chikalda	−·014	+·030	−·010	−·016	+·009	+·043	−·025	+·012	−·006	+·054	+·023	−·034	+·006

TABLE XVIII.—*Comparison of monthly mean pressures in 1902 with the averages of past years*—concld.

Meteorological Provinces.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Hill Station, Southern India.	Wellington	+·001	+·058	—·001	?	?	?	?	?	?	?	?		?
Extra Indian Stations.	Aden	+·021	+·073	—·024	—·023	?	—·005	?	—·065	—·040	—·017	—·019	—·006	?
	Perim	+·026	+·076	—·007	+·016	—·004	+·011	—·003	—·029	+·006	+·032	—·028	+·001	+·008
	Zanzibar	+·011	+·068	+·010	+·008	—·009	—·029	—·031	—·035	—·001	+·021	—·005	—·023	—·015
	Port Victoria (Seychelles).	+·003	+·053	+·005	—·009	—·016	+·002	—·028	—·035	—·008	—·006	—·027	—·032	—·008
	Mauritius	+·012	—·043	+·028	—·012	—·019	—·054	—·051	—·058	—·022	—·032	—·028	—·091	—·031

The following tables give summaries of the pressure variation data according to the two groups of divisions employed in the corresponding tables of temperature variation data, that is, for the sixteen divisions for which the variation data were given in the "Geographical Summaries" in the annual reports previous to 1891 and the eleven meteorological provinces in Table I of each monthly review:—

TABLE XIX.—*Geographical summary of the pressure variation data of Table II in the monthly weather reviews of 1902.*

Meteorological Provinces.	Number of stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
North-West Himalaya	5	+·034	+·114	+·004	—·008	+·009	+·006	—·015	+·038	+·014	+·056	+·043	—·015	+·023
Sikkim Himalaya and Nepal.	1	+·018	+·082	+·008	—·026	+·005	—·009	—·017	+·001	—·005	+·045	+·013	—·037	+·007
Punjab Plains	3	—·028	+·068	—·021	—·016	—·014	+·023	—·020	+·008	—·007	+·062	+·029	—·024	+·005
Gangetic Plain	5	—·021	+·071	—·034	—·012	—·009	+·014	—·022	+·006	—·007	+·072	+·031	—·025	+·005
Western Rajputana	4	—·015	+·064	—·023	—·033	0	+·032	—·031	+·004	—·019	+·046	+·029	—·029	+·002
Eastern Rajputana and Central India.	1	—·008	+·074	—·018	—·018	+·002	+·033	—·027	+·011	—·006	+·068	+·041	—·014	+·012
Nerbudda Valley	1	—·008	+·077	—·016	—·021	+·015	+·044	—·031	+·009	0	+·073	+·048	—·003	+·016
Chota Nagpur	1	—·009	+·091	—·023	—·015	—·007	+·014	—·027	+·013	—·003	+·081	+·026	—·029	+·009
Lower Bengal	2	—·011	+·095	—·017	+·012	+·016	+·024	—·011	+·017	+·005	+·097	+·041	—·021	+·021
Orissa	1	—·016	+·088	—·023	+·002	—·001	+·009	—·016	—·005	—·001	+·093	+·036	—·029	+·011
Central Provinces (South) and Berar.	5	—·008	+·072	—·006	—·011	+·010	+·045	—·025	+·010	+·004	+·075	+·040	—·021	+·015
Konkan	2	—·012	+·066	—·009	+·005	+·026	+·040	—·027	+·002	—·005	+·048	+·027	—·029	+·011
Deccan, Hyderabad and Mysore.	8	—·006	+·066	—·002	+·001	+·007	+·037	—·021	—·006	0	+·054	+·027	—·028	+·011
East Coast and Carnatic.	2	—·008	+·073	—·019	—·002	—·002	+·017	—·019	—·021	—·002	+·063	+·029	—·021	+·007
Arakan and Pegu	3—4	—·029	+·074	—·021	+·007	—·002	—·012	—·014	—·021	+·002	+·069	+·036	—·034	+·005
Bay Islands	1	—·005	+·082	—·002	+·014	+·028	+·021	+·013	+·001	+·038	+·072	+·044	—·009	+·024
Extra-Tropical India	24	—·005	+·083	—·017	—·014	0	+·018	—·021	+·013	—·003	+·065	+·034	—·023	+·011
Tropical India	22—23	—·010	+·070	—·009	0	+·008	+·028	—·019	—·005	+·002	+·062	+·033	—·026	+·011
Whole India	46—47	—·007	+·076	—·013	—·007	+·004	+·023	—·020	+·005	0	+·064	+·033	—·024	+·011

TABLE XX.—*Variations of the mean pressure of each month of 1902 from the normal in the eleven meteorological provinces of India.*

METEOROLOGICAL PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	"	"	"	"	"		"	"	"	"	"	"	"
Burma Coast and Bay Islands.	—·013	+·096	—·009	+·014	+·012	—·001	+·008	—·006	+·020	+·074	+·035	—·034	+·016
Burma Inland	+·008	+·116	+·005	+·045	+·021	—·001	+·006	+·013	+·028	+·098	+·045	—·032	+·029
Assam	—·013	+·102	—·005	+·039	+·006	—·007	—·016	+·011	+·009	+·097	+·054	—·027	+·021
Bengal and Orissa	—·017	+·093	—·016	+·022	+·013	+·006	—·017	+·018	—·002	+·094	+·050	—·019	+·019
Gangetic Plain and Chota Nagpur.	—·015	+·091	—·026	—·002	+·007	+·013	—·026	+·018	—·008	+·093	+·046	—·019	+·014
Upper Sub-Himalayas.	—·012	+·093	—·019	—·013	—·004	+·021	—·019	+·008	—·003	+·078	+·043	—·014	+·013
North-West Frontier Province, Indus Valley and North-West Rajputana.	—·020	+·084	—·028	—·023	—·006	+·030	—·023	+·023	—·013	+·068	+·034	—·021	+·009
East Rajputana, Central India and Gujarat.	—·010	+·079	—·023	—·018	+·012	+·043	—·029	+·014	—·021	+·070	+·041	—·022	+·011
Deccan	—·013	+·085	—·013	—·008	+·009	+·045	—·024	+·015	—·003	+·081	+·045	—·022	+·016
West Coast	—·014	+·071	—·006	+·005	+·014	+·032	—·020	—·009	—·003	+·044	+·020	—·029	+·009
South India	—·010	+·085	—·004	+·007	+·009	+·035	—·008	—·005	+·002	+·069	+·034	—·020	+·016

I.—The cold weather period.—The mean pressure of the Indian area was in slight defect in January and in very large excess in February. Pressure averaged ·012″ below the normal in January over the Indian land area. The month was unusually fine and free from cold-weather storms. As usual under these conditions, pressure was in large relative excess at the level of the hill stations in North-Western India. The local variations of pressure in India were generally small in amount and of little significance. The only important feature was a deficiency slightly exceeding ·02″ in the Indus Valley.

In February the mean pressure of the Indian land area was ·088″ above the normal—the largest monthly excess of pressure during the past 26 years. It is especially noteworthy that this general excess of pressure was associated with general excess of temperature, averaging 1°·3 for the whole of India. The local variations at the level of the plains were nowhere large. Pressure was in general local excess in Burma and North-Eastern India. The excess was slightly more than ·02″ in Central and Upper Burma. The area of local deficiency included the western half of the Peninsula, North Bombay and the Indus Valley. The deficiency was greatest in the West Coast districts from Surat to Colombo, where it slightly exceeded ·02″.

Pressure was more largely in relative excess a the hill stations in North-Western India in January than in February. As is usual under these conditions, weather was persistently finer and drier than usual in Northern India and was remarkably free from cold weather storms.

The following gives the mean pressure anomalies in the various parts of India for the period :—

PROVINCE OR DIVISION.	PRESSURE ANOMALY.		
	January.	February.	Period, January and February.
	"	"	"
Burma	+·008	+·018	+·013
Assam	—·001	+·014	+·007
Bengal	—·006	+·005	—·001
Orissa	—·006	+·007	+·001
Bihar	—·002	+·003	+·001
Chota Nagpur	+·006	+·011	+·009
United Provinces of Agra and Oudh	—·005	0	—·003
Punjab	—·005	+·002	—·002

Province or Division.	Pressure anomaly.		
	January.	February.	Period, January and February.
	"	"	"
Sind	—·010	—·013	—·012
Rajputana	+·001	—·005	—·002
Gujarat	+·004	—·017	—·007
Central India	+·002	—·001	+·001
Central Provinces	—·003	0	—·002
Berar	—·001	—·001	—·001
West Coast	—·002	—·017	—·010
Bombay Deccan	+·004	—·015	—·006
Mysore	+·002	—·020	—·009
Madras Coast	+·003	+·005	+·004
Madras Deccan	—·004	+·004	0
South India	+·002	—·013	—·006

Pressure was in moderate to large relative excess at the level of the hill stations as compared with the neighbouring plains in Northern India and in slight relative defect in Southern India. The excess was very large in the North and West Punjab, Kashmir and Baluchistan as indicated by the data for Leh, Quetta and Murree.

The following gives data for ten pairs of stations :—

Hill and Plain Stations.	Vertical pressure anomaly.		
	January.	February.	Period, January and February.
	"	"	"
Leh and Lahore	+·115	+·065	+·090
Quetta and Jacobabad	+·086	+·060	+·073
Murree and Peshawar	+·067	+·058	+·063
Simla and Ludhiana	+·047	+·034	+·041
Chakrata and Roorkee	+·019	+·012	+·016
Ranikhet and Bareilly	+·027	+·016	+·022
Darjeeling and Dhubri	+·035	—·005	+·015
Mount Abu and Deesa	+·019	+·026	+·023
Pachmarhi and Hoshangabad	—·003	0	—·002
Wellington and Coimbatore	—·001	—·019	—·010

The following data for eleven meteorological provinces illustrate the local conditions in India in January and February.

Meteorological Province.	Pressure anomaly.		
	January.	February.	Period, January and February.
	"	"	"
Burma Coast and Bay Islands	—·002	+·008	+·003
Burma Inland	+·020	+·028	+·024
Assam	—·001	+·014	+·007
Bengal and Orissa	—·005	+·005	0
Gangetic Plain and Chota Nagpur	—·003	+·003	0
Upper Sub-Himalayas	0	+·005	+·003
North-West Frontier Province, Indus Valley and North West Rajputana.	—·010	—·004	—·007
East Rajputana, Central India and Gujarat	+·002	—·009	—·004
Deccan	—·001	—·003	—·002
West Coast	—·002	—·017	—·010
South India	+·001	—·003	—·001

II.—The hot weather period.—The mean pressure of the Indian region was in slight defect in March, normal in April and in very slight excess in May.

The following gives data for the period :—

Month.	Mean Pressure variation.			
	Whole India.		Tropical India.	Extra-Tropical India.
	From data of Table I.	From data of Table II.		
	"	"	"	"
March	—·015	—·013	—·009	—·017
April	+·002	—·007	0	—·014
May	+·009	+·004	+·008	0

The mean 8 A.M. pressure of the period hence averaged ·001″ in defect.

The following gives local pressure variations or anomalies for each month and for the period in the various meteorological divisions.

Meteorological Province.	Pressure anomaly.			
	March.	April.	May.	Period, March to May.
	"	"	"	"
Burma Coast and Bay Islands	+·006	+·012	+·003	+·007
Burma Inland	+·020	+·043	+·018	+·025
Assam	+·010	+·037	—·003	+·015
Bengal and Orissa	—·001	+·020	+·004	+·008

Meteorological Province.	Pressure anomaly.			
	March.	April.	May.	Period, March to May.
	"	"	"	"
Gangetic Plain and Chota Nagpur	—·011	—·004	—·002	—·006
Upper Sub-Himalayas	—·004	—·015	—·013	—·011
North-West Frontier Province, Indus Valley and North-West Rajputana.	—·013	—·025	—·013	—·018
East Rajputana, Central India and Gujarat.	—·008	—·020	+·003	—·008
Deccan	+·002	—·010	0	—·003
West Coast	+·009	+·003	+·005	+·006
South India	+·011	+·005	0	+·005

The above shows that pressure was locally in excess throughout the period in Burma, North-Eastern India and also in South India and the West Coast, and in persistent slight defect in North-Western and Central India and the Deccan.

The vertical pressure anomalies were generally positive throughout the period in Northern India, but by small amounts compared with the very large values of the excess in January and February.

The following gives data for the period :—

Hill and Plain Stations.	Vertical pressure anomaly			
	March.	April.	May.	Period, March to May.
	"	"	"	"
Leh and Lahore	+·014	—·020	+·039	+·011
Quetta and Jacobabad	+·048	+·029	+·042	+·040
Murree and Peshawar	+·030	0	+·022	+·017
Simla and Ludhiana	+·038	+·009	+·025	+·024
Chakrata and Roorkee	+·023	—·009	+·004	+·006
Ranikhet and Bareilly	+·029	+·005	+·003	+·012
Mount Abu and Deesa	+·037	+·009	—·001	+·015
Pachmarhi and Hoshangabad	+·019	+·007	+·010	+·012

The following gives a fuller statement of the chief abnormal features of the pressure conditions during May :—

(1) The mean 8 A.M. pressure of the Indian land area was ·009″ above the normal, and was hence in excess by almost the same amount as in the corresponding months of 1891 and 1901. The excess in May 1891 accompanied, and was partly the result of, the prevalence of lower temperature than usual, whereas in May 1901 and 1902 it was associated with higher temperature than usual over the greater part of the country, and was hence not a direct temperature effect.

(2) Relatively to the general condition, pressure was in local excess in Burma, Cachar, East and Central Bengal, Orissa, the central and submontane districts of the Gangetic Plain, Gujarat, Bombay, Berar, the western districts of Central India and South and Central Madras. The anomalies were small for all stations in these areas except Kindat (+·027″), Mandalay (+·021″), Ratnagiri (+·024″) and Bahraich (+·021″).

(3) Pressure was in relative defect over the remainder of the country. The deficiency was less than ·02″ over the greater part of the area, but was moderately large in the North and West Punjab and Upper Sind. It was actually largest at Dera Ismail Khan (—·033″), Mooltan (—·028″), Peshawar and Rawalpindi (each —·027″) and Jacobabad (—·024″).

(4) On the mean of the month the trough of low presssure in Northern India occupied its normal position.

(5) Pressure was in sight to moderate excess at the level of the hill stations in Baluchistan, Upper and Central India and in slight defect in the Eastern Himalayas.

(6) The pressure conditions were practically normal in Persia, Arabia and the Equatorial Belt, as is shown by the data for Bushire, Aden, Zanzibar and the Seychelles.

(7) In the South Indian Ocean and Australia the conditions were, so far as can be judged, as abnormal as in the preceding month, pressure being about a fifth of an inch in excess at Adelaide and in slight defect at Mauritius.

III.—The south-west monsoon period.—The south-west monsoon currents were much weaker than usual during June, July and the first two weeks of August. On the West Coast the first advance occurred in the second week of June and was accompanied by the formation and advance of a severe cyclonic storm from about Latitude 19° N and Longitude 70° E to the Sind coast, A feeble depression formed in the Bay and initiated the rains in Bengal.

The monsoon current withdrew from the east and centre of the Arabian Sea on the 16th and 17th and a break in the rains hence set in over West and North-West India. A fresh advance commenced in the Arabian Sea on the 3rd of July. It gave more or less general rain in the west coast districts as far north as Gujarat and to Berar, the Central Provinces and Central India.

A cyclonic storm formed in the north-west of the Bay on the 13th and 14th. It advanced north-westwards into the United Provinces and gave more or less general rain in Orissa, Bengal, the United Provinces and Central India. A second storm formed in the same area on the 27th and followed practically the same track during the next week.

Both currents were very weak during the first fortnight of August and a general break in the rains obtained over nearly the whole of the interior. Conditions changed

rapidly on the 17th and 18th and a strong influx of humid winds set in which lasted until nearly the end of September.

The distribution of the rainfall was largely conditioned by the tracks of a series of moderately severe cyclonic storms which formed in the north-west angle of the Bay and passed in rapid succession landwards. Three of these storms passed into North Bombay and Rajputana and one into Bihar.

Details of these storms are given at the end of this section.

The following is a brief statement of the more important variations of the mean pressure conditions during the period :—

The mean pressure of the Indian land area was in moderate excess in June, in moderate defect in July and practically normal in August and September.

The following gives data for the period :—

Month.	Mean variation of pressure from normal.		
	Extra-Tropical India.	Tropical India.	Whole India.
	"	"	"
June	+·018	+·028	+·023
July	—·021	—·019	—·020
August	+·013	—·005	+·005
September	—·003	+·002	0

The local features of the pressure distribution in June were in many respects similar to those obtaining in May, but were much more strongly pronounced. The following gives data :—

Province or Division.	Pressure anomaly.					
	May.	June.	July.	August	September.	Period, June to September.
	"	"	"	"	"	"
Burma	+·007	—·028	+·025	—·008	+·026	+·004
Assam	—·003	—·032	+·001	+·002	+·011	—·005
Bengal	+·005	—·022	—·002	+·007	—·001	—·005
Orissa	+·001	—·009	+·012	+·008	+·003	+·004
Bihar	—·009	—·027	—·010	+·003	—·010	—·011
Chota Nagpur	—·006	—·011	—·006	+·013	—·007	—·003
United Provinces of Agra and Oudh.	—·002	—·006	—·010	+·002	—·004	—·005
Punjab	—·020	+·003	+·001	+·010	—·003	+·003
Sind	—·011	+·004	—·012	+·005	—·014	—·004
Rajputana	—·001	+·017	—·005	+·011	—·018	+·001
Gujarat	+·008	+·023	—·014	+·003	—·026	—·004
Central India	+·004	+·020	—·017	+·014	—·005	+·003
Central Provinces	—·004	+·013	—·004	+·013	+·005	+·007
Berar	+·007	+·030	—·005	+·011	+·012	+·012
West Coast	+·005	+·007	—·003	—·018	—·001	—·004
Bombay Deccan	+·008	+·023	—·014	—·003	—·011	—·001
Mysore	+·005	+·016	+·001	—·015	—·003	0
Madras Coast	—·004	+·004	+·013	—·012	+·007	+·003
Madras Deccan	0	+·023	—·006	—·011	0	+·002
South India	+·002	+·006	+·015	—·019	+·008	+·003

The local variations changed considerably from month to month. In July pressure was in slight to moderate local excess in Burma, Orissa, South India and the Madras coast, and in very slight defect generally over the remainder of India. In August it was in slight to moderate defect in the Peninsula and Bay (except in the north) and in very slight excess in Extra-Tropical India. The variations of September were larger and more important than for the preceding three months and are fully stated below :—

(1) Pressure was in moderate to considerable excess in September over Burma and the south-east of the Bay. The following gives data for typical stations :—

Station.	Pressure variation.	Anomaly.
	"	"
Port Blair	+·024	+·026
Mergui	+·039	+·041
Rangoon	+·004?	+·006?
Toungoo	+·030	+·032
Mandalay	+·036	+·038
Bhamo	+·030	+·032

(2) The local pressure anomalies in September were small and positive in the eastern half of the Peninsula and small but negative in the western half. The following gives data :—

Province or Division.	Pressure anomaly, September.
	"
Gujarat	—·026
Central India	—·005
Central Provinces	+·005
Berar	+·012
West Coast	—·001

Province or Division.	Pressure anomaly, September.
	"
Bombay Deccan	−·011
Mysore	−·003
Madras Coast	+·007
Madras Deccan	0

(3) There was a remarkable local deficiency in Gujarat, Kathiawar and South-West Rajputana accompanying and following the very heavy rainfall in that area in August and September. The following gives data :—

Station.	Actual pressure variation, September.	Pressure anomaly, September.
	"	"
Veraval	−·027	−·025
Deesa	−·030	−·028
Malegaon	−·024	−·022
Ahmedabad	−·044	−·042
Bhavnagar Para	−·042	−·040

(4) Pressure was generally in very slight local defect in Northern India, but the variations were small and of little importance.

(5) An important feature of the last six weeks of the period was the establishment of a moderate excess of pressure in Burma and the south-east of the Bay to the Peninsula.

(6) The vertical pressure anomalies were, over the Himalayas, positive but small in amount during the months of July, August and September, and were, on the other hand, in slight defect in June. They are apparently of little significance and were, during the greater part of the period, related to the temperature variations. The following gives data in illustration :—

Hill and Plain Stations.	Vertical pressure anomaly.				
	June.	July.	August.	September.	Period June to September.
	"	"	"	"	"
Leh and Lahore	−·018	−·007	+·006	+·014	−·001
Quetta and Jacobabad	−·029	+·043	+·023	+·020	+·014
Murree and Peshawar	−·008	−·009	−·015	+·014	−·005
Simla and Ludhiana	−·011	+·018	+·020	+·012	+·010
Chakrata and Roorkee	−·006	+·004	+·007	+·002	+·002
Ranikhet and Bareilly	−·010	+·001	+·011	+·008	+·003
Darjeeling and Dhubri	−·014	−·014	−·015	−·031	−·019
Mount Abu and Deesa	+·005	+·015	+·004	+·011	+·009
Pachmarhi and Hoshangabad	+·009	+·006	−·008	−·006	0
Wellington and Coimbatore	−·005	+·003	+·004	−·013	−·003

IV.—The retreating south-west monsoon period.—The general pressure conditions of the Indian area during the period were remarkable. Pressure which was, on the mean of the whole area, normal in August and September increased much more rapidly than usual in October, and averaged ·077" above the mean. It continued above the normal in November when the mean 8 A.M. pressure of the whole Indian area was ·041" in excess. During the last month of the year pressure decreased very rapidly and was, on the average of the month, ·022" below the normal mean value. These variations were related to general air movements over a large area including probably the whole of Southern Asia and the Indian Ocean.

The following gives a statement of the chief features of the local variations of pressure during the period :—

(1) In October pressure was in moderate local excess in Upper Burma, Bengal, Assam and North Madras, and was in moderate to considerable defect in the west and south of the Peninsula and the south of the Bay. This accompanied a rapid and earlier withdrawal of the monsoon currents from North-Eas India and Burma than usual.

(2) Pressure was in slight general excess over nearly the whole of Northern and Central India and the north-east of the Peninsula in November. It was, on the other hand, in slight to moderate defect in the area of considerable deficiency in October, *viz.*, the west and south of the Peninsula and the south of the Bay. A new feature which was faintly indicated in October now appeared *viz.*, a slight deficiency of pressure in Baluchistan and the West Punjab and Sind.

(3) The local variations of pressure in December were similar to those of November over the greater part of India. Pressure continued in local defect in the Indus Valley and the western half of the Peninsula. It increased relatively to the general condition in the south of the Bay where it was in December in excess and was in slight defect in Burma and the Andaman Sea. Over the remainder of India it was in very slight excess.

(4) The following features were, hence, persistent throughout the period and were the continuation of similar features and conditions initiated in September :—

(*a*) Deficient pressure in the west of the Peninsula relatively to the east of that area and the north-west of the Bay.

(*b*) Slight excess of pressure over the greater part of Northern and Central India and more especially in North Madras and the Central Provinces.

(5) The vertical pressure anomalies were generally negative and moderate in amount in October, but in November and December they were small and of little importance.

The following gives data :—

Hill and Plain Stations.	Vertical pressure anomaly. October.	November.	December.	Period, October to December.
	"	"	"	"
Leh and Lahore	—·043	—·008	+·005	—·015
Quetta and Jacobabad	+·004	+·005	+·024	+·011
Murree and Peshawar	—·012	+·002	+·013	+·001
Simla and Ludhiana	—·017	+·005	—·004	—·005
Chakrata and Roorkee	—·033	—·008	+·002	—·013
Ranikhet and Bareilly	—·016	+·002	+·012	—·001
Mount Abu and Deesa	—·013	+·001	+·001	—·004
Pachmarhi and Hoshangabad	—·008	—·012	—·030	—·017
Wellington and Coimbatore	—·022	—·040	—·002	—·011

The year.—The variations in the pressure conditions from the normal in the Indian area in 1902 are of unusual interest. The mean pressure of the year was on the average of the Indian area ·011″ in excess. It was in excess over the whole area. The excess was greatest in Burma, North-Eastern India, the Central Provinces and Berar where it ranged between ·020″ and ·027″, and least in the West Coast, the Bombay Deccan, Gujarat, Sind and Rajputana, where it was ·01″ in average amount.

The following gives mean variation data of the year for twenty areas :—

Province or Division.	Variation from normal of mean 8 A.M. pressure of year.	Pressure anomaly of year.
	"	"
Burma	+·024	+·009
Assam	+·021	+·006
Bengal	+·020	+·005
Orissa	+·021	+·006
Bihar	+·014	—·001
Chota Nagpur	+·013	—·002
United Provinces of Agra and Oudh	+·015	0
Punjab	+·011	—·004
Sind	+·008	—·007
Rajputana	+·011	—·004
Gujarat	+·011	—·004
Central India	+·018	+·003
Central Provinces	+·020	+·005
Berar	+·027	+·012
West Coast	+·008	—·007
Bombay Deccan	+·011	—·004
Mysore	+·012	—·003
Madras Coast	+·019	+·004
Madras Deccan	+·015	0
South India	+·017	+·002

Pressure was, on the mean of the year, as in the preceding year, more largely in excess at the hill stations than at the neighbouring plains stations in Northern India. The following table gives the mean vertical anomalies of the year for six pairs of stations in Northern and one pair in Southern India :—

Pairs of Stations.	Vertical Pressure anomaly of year. 1902	1901
	"	"
Leh and Lahore	+·013	+·021
Quetta and Jacobabad	+·030	+·023
Murree and Peshawar	+·014	+·016
Simla and Ludhiana	+·014	+·010
Chakrata and Roorkee	+·001	+·008
Ranikhet and Bareilly	+·008	+·012
Wellington and Coimbatore	—·005	—·006

It is interesting that in both years the vertical anomalies in Southern India were opposite in sign to those in Northern India. This is the usual rule.

The following gives the variations of the mean pressure of Extra-Tropical and Tropical India, and also of the whole of India from the normal, month by month, during the year 1902 :—

Month.	Variation from normal of mean pressure in Extra-Tropical India from Table II.	Tropical India from Table II.	Whole India from Table II.	Variation of temperature, whole India from Table II.
	"	"	"	°
January	—·006	—·010	—·007	+2·0
February	+·083	+·070	+·076	+2·1
March	—·017	—·009	—·013	+2·3
April	—·014	0	—·007	+0·5
May	0	+·008	+·004	+1·2
June	+·018	+·028	+·023	+1·0
July	—·021	—·019	—·020	+0·7
August	+·013	—·005	+·005	+0·5
September	—·003	+·002	0	+0·4
October	+·065	+·062	+·064	+0·5
November	+·034	+·033	+·033	+0·3
December	—·023	—·026	—·024	+0·2
Whole year	+·011	+·011	+·011	+1·1

The most noteworthy feature during the year was the very large excess of pressure in February and again in October.

The following gives the progressive variation of the mean annual pressure of the past 28 years for the Indian land area :—

Year.	Number of stations.	Mean anomaly.	Progressive variation.
		"	"
1875	33	—'007	
1876	35	—'007	0
1877	59	+'032	+'039
1878	65	+'002	—'030
1879	81	—'014	—'016
1880	93	—'003	+'011
1881	93	+'002	+'005
1882	93	—'010	—'012
1883	105	—'005	+'005
1884	107	+'010	+'015
1885	113	+'014	+'004
1886	118	—'003	—'017
1887	117	—'006	—'003
1888	109	+'011	+'017
1889	76	+'004	—'007
1890	77	—'009	—'013
1891	72	+'010	+'019
1892	72	—'022	—'032
1893	66	—'001	+'021
1894	66	—'012	—'011
1895	66	+'003	+'015
1896	68	—'001	—'004
1897	74	—'005	—'004
1898	74	—'018	—'013
1899	51	+'004	+'022
1900	49	+'010	+'006
1901	47	+'005	—'005
1902	46	+'011	+'006

The following gives a statement of the more important cyclonic storms formed in the Bay of Bengal during the south-west monsoon of 1902, drawn up in the same form as in previous years. The tracks of these storms are given in Plate VI at the end of the Summary :—

No.	Month.	Date.	Greatest observed barometric depression.	Character of storm.	Details of storm.
1	May	4th to 7th	About ·6"	Severe cyclonic storm.	This storm was generated with unusual rapidity in the north of the Andaman sea on the 4th. It intensified on the 5th and advancing in a northerly direction crossed the Pegu Coast to the east of Diamond Island on the morning of the 6th. It broke up rapidly in Central Burma during the day. A slight residual depression lay over Central Burma on the 7th. Very stormy weather was experienced in the Andaman sea on the 5th and 6th and the violent winds accompanying the storm caused much damage to property and shipping at Rangoon. The storm was remarkable in several respects, more especially in its unusually rapid formation and growth. It was, on the whole, the most severe that has visited Lower Burma in the first half of May during the past 25 or 30 years and caused the total loss of the S.S. *Camorta* (with 600 passengers on board), and the S. S *Hermod*. The R. I. M. S. *Elphinstone* experienced winds of hurricane violence on the 5th.
2	July	13th to 20th	·32"	Cyclonic storm of moderate intensity.	This storm began to form at the head of the Bay on the 13th. It commenced to move west-north-westwards on the 15th and crossed the Bengal coast between Balasore and Saugor Island on the evening of that day. It thence marched with increasing velocity through Chota Nagpur during the next thirty-six hours and at 8 A.M. of the 17th was in Baghelkhand. It changed its course during the next 24 hours and marching through the central districts of the United Provinces broke up at the foot of the Kumaon hills on the 19th. It was a storm of moderate intensity and gave moderately heavy rain along its path. The rain fall was excessive in Orissa on the 15th and 16th and caused heavy floods which breached the Bengal Nagpur and East Coast Railway lines in several places. The strongest winds experienced in the Bay during the storm were of force 10.

No.	Month.	Date.	Greatest observed barometric depression.	Character of storm.	Details of storm.
3	July and August.	26th July to 2nd August.	″ ·20	Cyclonic storm of feeble intensity.	This storm originated on the 26th July over Lower Bengal and the head of the Bay. It marched in a north-westerly direction from the 27th to the 30th into Bundelkhand and then recurved to north. The centre was near Jhansi on the 31st, Agra on the 1st August and Bareilly on the 2nd. It broke up during the day under the action of the Kumaon hills. The storm determined a moderate to heavy burst of rain to the whole of Extra-Tropical India, east of the Meridian of 74° E. It was an example of a class of disturbances which disminish rapidly in intensity as their distance from the Bengal coast increases but re-develop when the Bombay current begins to feed into them.
4	August.	19th to the 23rd.	″ ·15	Cyclonic storm of feeble intensity.	This storm formed on the 18th in the north-west of the Bay off the Ganjam coast during a period of strong winds in the Deccan. The centre advanced across the coast to the south of Gopalpur about noon on the 19th and then marched in a north-westerly direction and was central nearly midway between Raipur and Nagpur on the 20th, near Pachmarhi on the 21st, between Ahmedabad and Neemuch on the 22nd, and to the east-south-east of Hyderabad (Sind) on the 23rd. It was absorbed during the next 24 hours into the permanent low pressure area, in Upper India. The storm although feeble was remarkable for the heavy burst of rain which it gave to Gujarat and Kathiawar. The strongest winds experienced in the Bay during its formation were of force 6.
5	August.	23rd to the 30th.	″ ·25	Cyclonic storm of moderate intensity.	This storm formed at the head of the Bay on the 23rd and 24th, whilst the previous storm was breaking up in North-Western India. The depression advanced along a west-north-westerly course through Chota Nagpur, Central India, and Central Rajputana to the quasi-permanent area of low pressure in Sind and Rajputana on the 28th. A residual cyclonic circulation over Sind and West Rajputana during the next two days indicated the continued existence of the disturbance. The storm, although of only moderate intensity, occasioned a moderately heavy burst of rain in Northern and Central India and excessive rain in Gujarat and Kathiawar. The strongest winds experienced by vessels in the Bay during the existence of the storm did not exceed 8 in force.
6	August and September.	30th August to 6th September.	″ ·22	Cyclonic storm of moderate intensely	This storm formed over the head of the Bay on the 30th and 31st of August. It marched west-north-westwards through Orissa and the Central Provinces during the next two days and was central near Ahmedabad on the 3rd of September. It continued to advance in the same direction during the day and was absorbed in the low pressure area of the rains in Sind. The storm was remarkable for the heavy burst of rain it gave to Gujarat and the neighbouring districts of Sind and Rajputana during its later stages. The strongest winds experienced in the Bay during the existence of the storm were of force 7.
7	September.	21st to the 26th.	″ ·25	Cyclonic storm of moderate intensity.	This storm formed over the north of the Bay on the 22nd and 23rd and marched slowly northwards crossing the coast near Balasore on the early morning of the 25th. If thence advanced quickly into North Bihar where it filled up on the 26th. It was a disturbance of moderate intensity and occasioned moderate to heavy general rain in Bengal. The strongest winds actually recorded on board vessels in the Bay during the existence of the storm did not exceed 6 or 7 in force.
8	October.	27th to 31st.	″ ·15	Cyclonic storm of slight intensity	This storm formed in the south-west of the Bay in about Lat. 9°N. and long 85°E. on the 26th. It travelled north-westwards on the 27th and crossed the Coromandel coast near Madras on the 28th. It filled up slowly in the Madras Deccan on the 29th and 30th. The storm was chiefly noteworthy for the heavy general rainfall it gave to the Peninsula. The rainfall extended as far north as Bundelkhand and Baghelkhand where it was moderately heavy. The strongest winds experienced during its existence were of force 8 in the Bay.

The following gives a similar statement of the more important storms in the Arabian Sea :—

No.	Month.	Date.	Greatest observed barometric depression.	Character of storm.	Details of storm.
1	May.	5th to 14th.	At least an inch.	Very severe cyclonic storm or cyclone.	This storm originated in the centre of the Arabian Sea to the south-east of Socotra on the 5th and 6th. It apparently advanced slowly in a northerly

No.	Month.	Date.	Greatest observed barometric depression.	Character of storm.	Details of storm.
					direction on the 7th and 8th, developing at the same time. It recurved to north-east on the 9th and 10th, during which period its average rate of motion was only about 4 miles per hour. The centre travelled in a north-easterly course with increasing velocity on the 11th and 12th, and on the morning of the 13th crossed the Sind coast to the east of Kurrachee about 9 A.M. It thence passed very quickly into the East Punjab where it broke up on the evening of the 14th. It gave destructive winds at Kurrachee on the 13th, inflicting much damage on property. The storm was probably a concentrated disturbance of great intensity and caused very stormy weather over the sea area affected by it. The S.S. *Ehrenfels* of Bremen foundered in the storm on the 9th about 150 miles to the east of Socotra. Winds of hurricane violence were experienced by the *Clan Maclean* and *Soudan*.
2	June.	9th to the 16th.	About an inch.	Very severe cyclonic storm or cyclone.	This storm was one of the severest that have occurred in the north-east of the Arabian Sea in the month of June in recent years. It was generated slowly off the Konkan coast on the 8th, 9th and 10th, in front of the first great advance of the monsoon current over the east of the Arabian Sea. It developed steadily during the next three days, at the same time travelling slowly north-westwards, and on the 14th was a dangerous cyclone with probably a calm centre and inner area of hurricane winds. It recurved slowly to north on the 15th and crossed the Mekran coast about 30 miles to the west of Kurrachee on the afternoon of the 16th, and passed into the broken ground of South Baluchistan where it apparently broke up very rapidly. It was accompanied by a storm wave which in conjunction with the violent winds caused great damage to life and property in Kurrachee and its neighbourhood. This storm was remarkable for its slow movement, great intensity and small extent.
3	October.	12th to 17th	1·2 in (?)	Very severe cyclonic storm or cyclone.	This storm formed in the Arabian Sea nearly midway between Socotra and the Malabar coast on the 12th and 13th and marching west-north-westwards during the next three days was central about 300 miles to the east-south-east of the Kuria Muria Islands on the morning of the 17th. It continued to advance in the same direction during the day and apparently broke up against the Arabian coast passed into Arabia on the 18th. So far as can be judged from the scanty information available the storm was a very severe disturbance and may have been a cyclone of great intensity with a calm centre. The S. S. *Imperatrix*, *Haidari* and the *Ohenfels* which were involved in the inner storm area experienced winds of hurricane violence, and a high wild sea. The track of this storm is not given in Plate VI.
4	October and November.	27th October to 3rd November.	At least half an inch (?)	Cyclonic storm of considerable intensity.	This storm originated in the south of the Arabian Sea about 500 miles to the west of the Laccadive Islands on the 27th and 28th. It apparently drifted very slowly northwestwards during the next three days and was central to the north-north-east of Socotra on the morning of the 1st November. It continued to advance north-westwards during the day, and on the morning of the 2nd the storm centre was about 150 miles to the south of the Kuria Muria Islands. It diminished rapidly in intensity during the following 24 hours as it approached the coast and at 8 A. M. of the 3rd was a shallow disturbance of small extent. The residual depression filled up completely during the day. In the absence of information for the central area it is not possible to ascertain the intensity of the storm. The fact that winds of force 6 to 9 were experienced at considerable distances from the centre tends to show that it was a severe and extensive disturbance. The track of the storm is not given in Plate VI.
5	December.	6th to 13th	·25	Cyclonic storm of moderate intensity.	This storm formed in the south of the Arabian Sea about 500 miles to the west of the Laccadives on the 6th and 7th. It marched slowly in a north north-easterly direction towards the Kathiawar coast during the next five days and was central over the angle between the Kathiawar and Konkan coasts on the 12th. It filled up as it approached coast during the next thirty-six hours. It was throughout a disturbance of moderate intensity, the strongest winds experienced during its existence being of force 9.

Wind.

The mean direction of the wind and the mean diurnal movement of the air, as measured by Robinson anemometers, are given for all second class stations in Table II in each monthly review. The normal values are also stated for the sake of ready comparison. The normal data of these elements, utilized in Table II of the monthly weather Reviews of the year 1902, will be found in a collected form in Table XI and XII of the Annual Summary for 1896 (pages 638-644). The mean 8 A.M. wind directions for each month are laid down in the first chart in each monthly review. They are calculated in the usual manner by Lambert's formula from the 8 A.M. wind data given in Table I in each monthly review. As a general rule, the mean 8 A.M. wind directions vary little from the mean wind directions (calculated from the 10 and 16 hours wind data) in Table II of each monthly review, but in some cases and at certain seasons of the year they differ very considerably.

The chief features of the air movement over India in 1902 have been described in the monthly reviews of the year. The following gives a summary of the more important features for each period:—

1.—The cold weather period.—The air movement in the Indian area during the period was feebler although steadier than usual.

Over the greater part of Bengal, the Gangetic Plain and the Punjab winds were almost without exception light and below their normal strength. They were also generally more westerly and also as a rule steadier than usual.

The following gives comparative data of the air movement in Northern and Central India :—

Area.	Mean daily air movement in miles during cold weather period, January and February.		Percentage variation from normal.
	Actual.	Normal.	
Bengal	116	114	+ 2
Orissa	140	169	—17
Bihar	37	77	—52
Chota Nagpur	122	154	—21
United Provinces of Agra and Oudh	46	62	—26
Punjab	43	54	—20
Sind	106	153	—31
Rajputana	117	149	—21

The most noteworthy feature of the period was the great variability of the air movement in Central India, the Central Provinces and Berar. This was almost as strongly marked in February at the hill stations of Pachmarhi and Chikalda as at the low level stations. The following gives data for five stations :—

Station.	Percentage of mean wind steadiness.			
	January.	February.	Mean of period, January and February.	Normal of period, January and February.
Akola	14	9	12	26
Khandwa	8	9	9	26
Nagpur	20	16	18	26
Pachmarhi	26	14	20	18
Chikalda	32	21	27	24

Winds were more westerly than usual on the west coast of India.

The air movement in Southern India was steadier but feebler than usual.

The following gives comparative data shewing the variations of the strength of the air movement from the normal during the period in the Peninsula :—

Area.	Mean daily air movement in miles.				Percentage variation from normal of period, January and February.
	Actual, January.	Actual, February.	Mean actual of period, January and February.	Mean normal of period, January and February.	
Central Provinces	83	110	97	96	+1
Berar	115	134	125	117	+7
West Coast	149	163	156	163	—4
Bombay Deccan	248	242	245	212	+16
Mysore	160	161	161	142	+13
Madras Coast	131	118	125	130	—4
Madras Deccan	84	97	91	91	0
South India	71	113	92	123	—25

The variations in the air movement from the normal of the period are such as are almost invariably associated with the absence of cold weather storms and the prevalence throughout of fine settled weather.

The air movement at the Upper India hill stations was stronger and steadier than usual.

The following gives data :—

Station.	Mean wind steadiness during cold weather period, January and February.			Mean daily air movement in miles during cold weather period, January and February.		Percentage variation from normal.
	Actual percentage.	Normal percentage.	Variation from normal.	Actual.	Normal.	
Simla . . .	22	27	—5	147	130	+13
Chakrata . . .	55	4	+51	195	129	+51
Ranikhet . . .	32	18	+14	66	51	+29

The following statement shows the mean wind force and its variation from the normal in the Bay of Bengal and the Arabian Sea during the period :—

Area.	Mean daily force of wind. (Beaufort Scale.)					
	Actual, January.	Variation from normal, January.	Actual, February.	Variation from normal February.	Mean of period January and February.	Variation from normal of period, January and February.
Bay of Bengal . .	3·1	+0·1	2·9	+0·4	3·0	+0·3
Arabian Sea . .	3·5	+0·2	3·4	+0·4	3·5	+0·3

The data indicate that the drift from the north-east across the Bay of Bengal and Arabian Sea was stronger than usual during the period.

The air movement was more or less below the normal strength over the greater part of the country during the period, an indication that the cold weather conditions were much less marked than usual. These conditions were prolonged beyond their normal date as indicated by the weather in the plains and hill districts of Upper India, and thus slightly delayed establishment of the usual sea breezes on the Bengal coast until the first week of March.

II.—The hot weather period.—Weather was slightly more disturbed than usual in March and April in Northern India due to the advance of a number of feeble depressions from Sind along more southerly tracks than usual to Bengal. These disturbances gave frequent dry duststorms in North-Westerns India and moderate to heavy thundershowers in North-Eastern India. Two cyclonic storms of considerable intensity formed in the Indian Seas in the first week of May. One advanced from the neighbourhood of the Andamans to Lower Burma and the other from the centre of the Arabian Sea to the Sind coast.

Temperature was throughout the period more or less in excess of the normal in North-Western and Central India and the Peninsula. The excess was generally small to moderate in amount, an indication that the hot weather conditions were more pronounced than usual. It was in moderate to considerable defect in the area of excessive rainfall including Burma and North-Eastern India.

The following gives data showing the percentage variation of the air movement, month by month, from the normal during this period in Northern India :—

Area.	Mean daily air movement in							
	March.		April.		May.		Period, March to May.	
	Actual miles.	Percentage variation from normal.	Actual miles.	Percentage variation from normal.	Actual miles.	Percentage variation from normal.	Actual miles.	Percentage variation from normal.
Bengal . .	203	+9	288	+15	242	+1	244	+8
Bihar . .	78	—31	99	—30	119	—22	99	—28
Chota Nagpur .	183	—6	187	—13	210	—5	193	—8
United Provinces of Agra and Oudh.	86	+15	80	+4	96	+7	87	+9
Punjab . .	68	—3	77	—2	84	—1	76	—2
Sind . .	160	—14	204	—5	268	+3	211	—5
Rajputana .	126	—22	157	—11	228	—5	170	—13

The preceding data show that the air movement in the hot season over the greater part of Northern India was weaker than usual. The deficiency was, on the whole, most marked in the month of March and least marked in May.

The following were the chief features of the air movement of the period :—

(1) Winds were steadier and stronger than usual in Bengal.

(2) Winds were throughout of normal strength in Chota Nagpur, the United Provinces and the Punjab.

(3) Winds were on the mean of the period feebler than usual in Bihar.

(4) Winds were feebler than usual throughout the period in Rajputana and in March and April in Sind.

(5) Winds were more vigorous than usual at the hill stations in Northern and Central India

(6) Winds were of normal strength in the Andamans, but contained an unusually strong westerly element in May.

The following gives corresponding data for the Peninsula :—

Area.	Mean daily air movement in March. Actual miles.	March. Percentage variation from normal.	April. Actual miles.	April. Percentage variation from normal.	May. Actual miles.	May. Percentage variation from normal.	Period, March to May. Actual miles.	Period, March to May. Percentage variation from normal.
Central Provinces.	138	+10	193	+25	267	+14	199	+16
Berar	145	0	197	+12	285	+12	209	+8
Bombay Deccan	260	+13	296	+11	426	+25	327	+16
Madras Deccan	106	—1	133	+11	175	—6	138	+1
Mysore	146	+14	121	—14	171	—10	146	—3
Konkan	159	—13	172	—5	177	—6	169	—8
Madras Coast	152	+1	201	+9	225	+3	193	+4
South India	95	—25	85	—23	67	—32	82	—27

These data indicate that although on the whole the air movement was stronger than usual in the northern half of the Peninsula it was not so vigorous as usual in the southern half.

The following gives mean data for the winds in the Bay of Bengal and Arabian Sea for the period :—

Area.	Variation of mean daily force of wind (Beaufort's notation) in March.	April.	May.	Period, March to May.	Normal mean strength of winds during period.
Bay of Bengal	+0·1	—0·1	+0·6	+0·2	2·7
Arabian Sea	—0·2	—0·1	—0·4	—0·2	2·9

The mean intensity of the air movement was practically normal, being in slight excess in the Bay of Bengal and in slight defect in the Arabian Sea.

III.—The South-west monsoon period.—The Arabian Sea curren tset in slightly later than usual in the second week of June and extended very slowly and partially into the interior. The Bay current was established about the normal date on the Bengal coast.

The first burst of the monsoon current was not so strong as usual and withdrew from Western and Central India in the third week of June. The break thus initiated lasted until the 2nd July. The Bombay current was weak in the second half of July and a break set in at the end of the month until the 19th August when the current increased rapidly and was strong during the next six weeks. It retreated from North-Western and Central India in the last week of September. The Bengal current was of about normal strength in July and August and was strong, but very unsteady in September. It withdrew from Bengal in the second week of October.

The comparative data in the table below based upon the anemometer observations of four coast and four inland stations under the influence of the two currents give an approximate estimate of the strength of the air movement of the two branches of the monsoon current :—

Month.	Percentage variation from normal of mean daily air movement. Bay of Bengal current. Four coast stations.	Bay of Bengal current. Four inland stations.	Bombay current. Four coast stations.	Bombay current. Four inland stations.
June	+5	—13	—14	+10
July	+24	+6	—11	+3
August	+3	—12	—16	—1
September	+8	+13	—19	—7
Mean of period	+10	—2	—15	+1

The data given in the preceding table show that the air movement at the coast stations affected by the Bengal current was throughout stronger than usual. It varied irregularly at the inland stations and was on the mean normal. The data for the Bombay current indicate that it was considerably below its normal strength in the coast districts.

The following table gives corresponding data for the steadiness of the two currents:—

Month.	Variation from normal of percentage of mean wind steadiness. Bay of Bengal current. Four coast stations.	Bay of Bengal current. One inland station.	Bombay current. Three coast stations.	Bombay current. Four inland stations.
June	+8	—8	+3	+4
July	+10	—7	+1	—8
August	0	—4	+6	+2
September	+9	+4	+2	+1
Mean of period.	+7	—4	+3	0

Both currents were, as shown by the data, steadier than usual in the coast districts.

The comparative data given in the following table of the mean actual and normal force of the winds derived from the meteorological information contained in the logs of vessels navigating the Indian seas indicate that the air movement was below the normal to a moderate extent throughout the period in the Arabian Sea, and was of normal intensity in the Bay of Bengal on the mean of the

whole period. The actual variations are chiefly derived from the data of vessels following four or five tracks in these seas, and hence do not necessarily indicate a variation common to the whole area. They, however, almost certainly establish that the current in the Arabian Sea was below its normal strength throughout the period :—

Month.	Mean daily force of wind (Beaufort's notation) in the Bay of Bengal.			Mean daily force of wind (Beaufort's notation) in the Arabian Sea.		
	Actual.	Normal.	Variation from normal.	Actual.	Normal.	Variation from normal.
June	4·0	4·0	0	3·7	4·5	—0·8
July	4·4	4·0	+0·4	4·3	4·6	—0·3
August	3·7	4·0	—0·3	3·7	4·3	—0·6
September	3·5	3·7	—0·2	3·2	3·5	—0·3
Mean of period	3·9	3·9	0	3·7	4·2	—0·5

The preceding data indicate that on the mean of the whole period the Bay current was of normal strength. It was normal in June, stronger than usual in July and slightly below normal strength in August and September. The Arabian Sea current was throughout weaker than usual, more especially in June and August (due to great weakness in the first three weeks of the latter month).

The following table gives the variations of the steadiness and velocity of the air movement from the normal in Northern India :—

Area.	Percentage variation from normal of mean wind steadiness in					Percentage variation from normal of mean daily air movement in				
	June 1902.	July 1902.	August 1902.	September 1902.	Period, June to September 1902.	June 1902.	July 1902.	August 1902.	September 1902.	Period, June to September 1902.
Bengal	—1	—1	—3	+3	—1	+9	+31	—1	+13	+13
Chota Nagpur	+17	+20	+2	+3	+11	—7	—2	—8	—11	—7
United Provinces of Agra and Oudh	+16	+2	+7	+1	+7	+33	+3	+7	—21	+6
Punjab	+10	+17	—3	+4	+7	—3	+9	—6	—12	—3
Sind	+6	+1	—1	—17	—3	—1	—2	—5	—23	—3
Rajputana	+21	0	+1	—4	+5	+11	+13	+12	—17	+5

The most noteworthy features of the air movement over Northern India during the south-west monsoon period were as follows :—

(1) The air movement was, on the whole, slightly stronger than usual in June, July and August, but was much below its normal intensity in September.

(2) The air movement was steadier than usual throughout the greater part of the season, but was very unsteady in September locally in Sind and Rajputana.

(3) There were large modifications of the air movement in Northern India in July, more especially unusual westing in Chota Nagpur, diminished easting in the east of the United Provinces, and increased easting in the East Punjab and westing in East Rajputana. These were directly related to the northerly displacement of the trough of low pressure. In August the trough of low pressure lay over the North Gangetic Plain, and in consequence the westerly winds of the Bombay current extended much further north than usual, reaching into Central India and the south and west of the Gangetic Plain, thus modifying largely the mean direction in these areas as in July.

(4) Winds were more directly from the south in Bengal. The following gives data for four stations :—

Station.	Wind direction. June.		July.		August.		September.	
	Actual, 1902.	Normal.	Actual, 1902.	Normal.	Actual, 1902.	Normal.	Actual, 1902.	Normal.
Chittagong	S 1° E	S 24° E	S 5° E	S 30° E	S 2° E	S 25° E	S 9° E	S 22° E
Calcutta	S 6 E	S 3 E	S 2 W	S 8 E	S 9 E	S 14 E	S 25 E	S 23 E
Saugor Island	S 2 E	S 12 W	S 16 W	S 21 W	S 7 E	S 13 W	S 10 E	S 2 W
False Point	S 20 W	S 37 W	S 49 W	S 53 W	S 31 W	S 47 W	S 23 W	S 20 W

(5) Over the greater part of Northern India the mean direction of the air movement differed very irregularly from the normal.

The following gives variation data of the steadiness and velocity of the air movement in the Peninsula :—

Area.	Percentage variation from normal of wind steadiness in					Percentage variation from normal of mean daily air movement in				
	June.	July.	August.	September.	Period, June to September.	June.	July.	August.	September.	Period, June to September.
Central Provinces	+3	—13	+1	+3	—2	+39	+5	+6	—10	+10
Berar	+2	—13	+4	—6	—3	+33	—13	+7	—20	+2
Bombay Deccan	0	+6	—2	+4	+2	+9	+23	+7	+12	+13
West Coast	+11	+2	+7	+3	+6	—9	—6	—21	—7	—11
Madras Deccan	+12	+2	+2	—1	+4	+1	—1	—2	—6	—3
South India	—41	—31	—19	—21	—28	—50	—56	—51	—39	—48

The following are the most noteworthy features :—

(1) The air movement was larger in amount from June to August in the Central Provinces, Berar and the Bombay Deccan, but was much below its normal amount in September in Berar and the Central Provinces.

(2) The air movement was feebler than usual throughout in the West Coast districts and Southern India.

(3) Winds were more southerly than usual over the area dominated by the Bombay current in June, July and August. They were generally normal in direction in the Deccan in September, but were more southerly in the coast districts. The following gives data:—

Station.	Wind direction. June. Actual.	June. Normal.	July. Actual.	July. Normal.	August. Actual.	August. Normal.	September. Actual.	September. Normal.
Bombay	S 62°W	S 64°W	S 69°W	S 74°W	S 87°W	S 81°W	°W	N 84°W
Karwar	S 56W	S 73W	S 70W	S 73W	N 75W	N 87W	S 84W	N 80W
Sholapur	N 87W	S 86W	S 56W	S 76W	N 84W	W	N 70W	N 69W
Belgaum	S 72W	S 62W	S 54W	S 68W	S 65W	S 71W	S 64W	S 78W

Winds were much stronger than usual at the hill stations of Mount Abu and Pachmarhi in June, July and August and normal in September. The following gives data :—

Station.	Percentage variation from normal of mean wind steadiness in: June.	July.	August.	September.	Period, June to September.	Percentage variation from normal of mean daily air movement in: June.	July.	August.	September.	Period, June to September.
Pachmarhi	+10	−10	−6	−12	−5	+49	+21	+23	+14	+27
Mount Abu	+15	0	−7	+6	+4	+57	+20	+26	+5	+27

Winds were considerably stronger than usual on the Kathiawar coast in June, July and August and were of normal strength on the Sind coast.

Station.	Percentage variation from normal of mean daily air movement in: June.	July	August.	September.	Period, June to September.
Kurrachee	−2	+3	+1	−17	−4
Rajkot	+15	+20	+37	+8	+20
Veraval	+15	+15	+12	•	+11

Winds were weaker and more easterly than usual at the Seychelles and Zanzibar in June. They were practically normal in direction in July, August and September.

Station.	Wind direction. June. Actual.	June. Normal.	July. Actual.	July. Normal.	August. Actual.	August. Normal.	September. Actual.	September. Normal.
Zanzibar	S 7°E	S 4°E	S 5°E	S 5°E	S 3°W	S 9°E	S 10°E	S 8°E
Seychelles	S 26E	S 21E	S 28E	S 29E	S 39E	S 36E	S 42E	S 41E

Station.	Percentage variation from normal of mean daily air movement in: June.	July.	August.	September.	Period, June to September.
Zanzibar	−9	−2	−11	+5	−4
Seychelles	−5	−7	−10	0	−6

IV.—The retreating south-west monsoon period.—The following table gives the variations of the steadiness and velocity of the air movement from the normal in Northern India :—

Area.	Percentage variation from normal of wind steadiness in: October.	November.	December.	Period, October to December.	Percentage variation from normal of mean daily air movement in: October.	November.	December.	Period, October to December.
Bengal	+18	+2	+3	+8	+1	−5	+10	+2
Bihar	+26	−30	−5	−3	?	?	?	?
Chota Nagpur	+28	+10	+20	+19	−6	−8	+16	+1
United Provinces of Agra and Oudh	+3	+11	+30	+15	+2	−12	+3	−2
Punjab	−2	+15	+7	+7	−8	−12	−43	−21
Sind	−1	−6	0	−2	−18	−41	−46	−35
Rajputana	+4	−2	+12	+5	−22	−34	−37	−31

The chief features of the air movement in Northern India were :—

(1) Winds were steadier than usual, and on the whole of normal strength in the Gangetic Plain and Bengal.

(2) Winds were slightly steadier than usual in the Punjab and Rajputana, but were much below their normal strength; they were very feeble in Sind.

(3) Winds were more northerly and less easterly than usual in Lower Burma in November and

December and at Port Blair in December. They shifted much earlier than usual in October to north-easterly directions in Lower Burma.

(4) Winds were more northerly and less westerly than usual over the Gangetic Plain and Rajputana in December and more westerly than usual in October and November.

The following gives variation data of the steadiness and velocity of the air movement in the Peninsula:—

Area.	Percentage variation from normal of mean wind steadiness in				Percentage variation from normal of mean daily air movement in			
	October.	November.	December.	Period, October to December	October.	November.	December.	Period, October to December.
Central Provinces	−9	+19	+15	+8	+3	0	+4	+2
Berar	−6	+3	−1	−1	−14	−30	−17	−20
Bombay Deccan	+32	+12	−4	+13	+2	+5	−15	−3
West Coast	−23	−13	−15	−17	−8	+2	+2	−1
Madras Deccan	+19	−11	−8	0	−5	−14	−8	−9
Madras Coast	+35	+9	+3	+16	−7	+6	−17	−6
Mysore	+46	+12	−12	+15	+3	+2	−26	−7
South India	+14	+26	+13	+18	−2	−18	−22	−14

The chief features of the air movement in the Peninsula were as follows:—

(1) The air movement was on the whole lighter than usual. This feature was very pronounced in the month of December.

(2) The air movement was less variable in direction, more especially in October and November. The increased steadiness was most marked in Southern India including the Coromandel Coast districts, where the rainfall of the season was unusually abundant and well distributed.

(3) Over the East Coast districts and the Deccan the north-easterly winds of the period were more directly from the east than usual. This feature was very marked in October and December. The following gives data for five stations:—

Station.	Easterly deflection.		
	October.	November.	December.
Belgaum	+25°	+8°	0°
Hyderabad	−6	+9	+2
Madras	+23	0	+18
Bangalore	+84	+12	+18
Hassan	+32	+4	+13

(4) Winds were more northerly than usual in October and November on the West coast of India as indicated by the data for Bombay and Karwar. The following gives data:—

Station.	Northerly deflection.	
	October.	November.
Bombay	+11°	+4°
Karwar	+37	+4

(5) The air movement over the Arabian Sea was, on the whole, slightly stronger than usual, and in the Bay of Bengal below its normal strength. The following table gives data:—

Area.	Variation of mean daily force of wind (Beaufort's Notation) in				Normal mean strength of winds during period.
	October.	November.	December.	Period, October to December.	
Bay of Bengal	−0·6	−0·1	−0·2	−0·3	3·2
Arabian Sea	+0·2	+0·3	+0·3	+0·3	3·0

(6) Winds were normal in direction but steadier and stronger than usual at the Seychelles and Zanzibar in December. They were from normal south-east directions in October. They shifted to northerly directions at the Seychelles in November and at Zanzibar in December:—

Station.	Percentage variation from normal of mean wind steadiness in				Percentage variation from normal of mean daily air movement in			
	October.	November.	December.	Period, October to December.	October.	November.	December.	Period, October to December.
Zanzibar	+11	−6	+1	+2	+30	−11	+7	+9
Seychelles	−19	−8	+23	−1	−4	−24	+26	−1

Station.	Wind direction.					
	October.		November.		December.	
	Actual, 1902.	Normal.	Actual, 1902.	Normal.	Actual, 1902.	Normal.
	°	°	°	°	°	°
Zanzibar	S 19 E	S 3 E	S 50 E	S 31 E	N 40 E	N 35 E
Seychelles	S 14 E	S 44 E	N 7 E	S 70 E	N 40 W	N 44 W

Humidity.

The variations of the mean monthly and annual aqueous vapour pressure and humidity values from the calculated normals for the year 1902 are given in Tables XXI and XXII. The normal values employed in the determination of the variations are given in Tables XIII and XIV of the Annual Summary for the year 1896. The four tables (Tables XXIII to XXVI) give variation data of aqueous vapour pressure and relative humidity for each month of the year and for the year:—

1st—For sixteen meteorological areas adopted in the geographical summaries of meteorological data in the annual reports issued by the department previous to 1891.

2nd.—For nine meteorological provinces of the Empire.

TABLE XXI.—*Comparison of the monthly mean vapour pressure data of 1902 with the averages of past years.*

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Burma Coast and Bay Islands.	Port Blair	−·030	+·015	+·016	+·018	+·003	+·011	+·018	+·017	+·013	+·021	−·008	+·041	+·011
	Rangoon	+·010	+·031	−·003	−·011	+·026	+·001	+·009	+·010	+·008	−·013	−·037	−·039	−·001
	Diamond Island	+·019	−·009	0	−·003	−·006	+·010	+·012	+·014	+·008	+·015	−·032	−·031	0
	Cocos Island	−·004	+·025	+·020	+·010	+·037	+·016	?	?	?	?	?	?	?
Bengal and Orissa	Chittagong	+·055	−·028	+·018	−·046	−·017	+·051	−·002	+·020	+·011	−·044	−·073	−·047	−·009
	Calcutta (Alipore)	+·014	−·078	+·017	+·031	+·010	−·010	−·010	−·001	+·008	−·040	−·024	−·044	−·011
	Saugor Island	−·007	−·060	+·042	−·004	−·003	−·003	−·005	+·022	+·015	−·023	−·039	−·035	−·008
	False Point	+·005	−·032	+·050	+·015	+·023	+·010	+·011	+·032	+·019	−·018	−·034	−·012	+·006
Gangetic Plain and Chota Nagpur.	Hazaribagh	+·006	−·007	+·043	+·053	+·046	−·069	−·029	−·015	+·039	−·027	−·024	−·042	−·002
	Darbhanga	−·016	−·030	+·069	+·130	+·071	+·023	+·017	+·033	+·005	0	+·007	−·041	+·022
	Allahabad	−·006	−·026	+·020	+·044	+·067	−·117	−·025	−·016	+·037	−·008	−.017	−·026	−·006
Upper Sub-Himalayas.	Dehra Dun	−·033	−·084	−·031	−·059	+·005	−·065	−·038	−·016	+·011	+·019	+·016	−·044	−.027
	Roorkee	−·034	−·088	−·068	−·038	+·031	−·006	−·009	+·002	+·028	+·012	+·009	−·039	−·017
	Meerut	−·051	−·086	−·078	−·079	−·040	−·017	+·013	+·011	+·025	+·028	−·014	−·066	−·030
	Lahore	−·060	−·064	−·019	−·016	+·054	+·016	−·017	−·015	+·051	+·109	+·035	−·032	+·004
	Ludhiana	−·069	−·092	−·066	−·084	−·033	−·037	−·038	−·070	+·014	+·005	−·023	−·067	−·047
North-West Frontier, Indus Valley and North-West Rajputana.	Peshawar	−·050	−·038	+·011	−·027	−·003	+·001	−·030	−·109	0	+·080	+·042	−·019	−·012
	Jacobabad	−·041	−·028	+·117	+·156	?	?	?	?	?	?	+·129	?	?
	Kurrachee	+·041	−·016	+·118	+·127	+·058	+·030	+·067	+·021	+·049	+·134	+·080	−·003	+·059
Eastern Rajputana, Central India and Gujarat.	Jaipur	−·048	−·010	+·029	−.019	−·017	−·049	−·004	−·027	+·055	+·051	−·009	−·071	−·010
	Deesa	−·047	−·089	−·047	+·028	−0·23	−.038	−·066	−·047	+·061	+·082	−·005	−·011	−·017
Deccan	Belgaum	−·011	−·043	+·020	−·009	+·027	−·012	+·021	+·002	+·038	+·035	+·052	+·162	+·024
	Sholapur	−·029	−·037	−·044	+·004	−·017	−·005	−·005	−·014	+·019	−·041	+·003	+·120	−·004

TABLE XXI.—*Comparison of the monthly mean vapour pressure data of 1902 with the averages of past years*—concld

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
		"	"	"	"	"	"	"	"	"	"	"	"	"
Deccan—*concld.*	Akola	−·025	−·047	−·087	+·026	+·123	−·055	+·031	−·025	+·028	+·020	+·016	+·088	+·008
	Buldana	−·048	−·095	−·101	−·004	−·035	−·096	−·002	−·043	+.002	0	0	+·066	−·020
	Khandwa	+·026	−·019	−·051	−.015	−·021	−·071	+·014	−·022	+·031	+·045	+·052	+·057	+·002
	Nagpur	−·021	−·079	−·119	−·048	−·091	−·066	+·001	−·015	+·027	+.005	−·027	+·058	−·031
	Hyderabad (Deccan)	?	?	?	?	?	?	?	?	?	−·007	+·018	+·093	?
West Coast	Bombay	+·025	−·008	+·048	+·041	+·022	−·009	+·017	+·005	+·022	+·028	−·011	+·030	+·018
	Karwar	+·032	−·027	+·019	+.033	+·088	−·004	+.006	+·024	+·003	+·009	+·017	+·114	+·026
South India	Salem	+·050	+·092	+·135	+·135	+·049	+·013	+·016	+·036	+·040	+·035	+·096	+·126	+·069
	Chitaldroog	+·042	+·042	+·004	+·024	+·033	+·002	+·046	+·017	+.044	+·031	+·066	+·122	+·039
	Bangalore	−·021	−·054	−·053	+·012	+·002	−·026	−·013	+·006	+·034	+·005	+·049	+.090	+·003
	Hassan	−·025	−·051	−·060	0	+·026	+·002	+·039	+·027	+·030	+·001	+·022	+·087	+·008
	Mysore	−·039	−·047	−·020	+·017	+·034	−·013	+·032	−.021	+·024	−·003	+·022	+·107	+·008
	Madras	+·042	+·015	+·041	+.012	+.005	+·029	+.043	+·073	+·077	+·031	+·045	+·062	+·040
	Bellary	−·041	+·072	+·085	−·002	+·064	+·043	+·032	−·015	+·008	+·004	+·031	+·049	+·028
Hill Station, Baluchistan.	Quetta	−·017	−·032	−·016	−·038	−·010	−·031	−·114	−.051	−·014	+·027	+·049	+·012	−·020
Hill Stations, Northern India.	Leh	−·036	−·023	+·004	+·018	+·014	+·018	0	−·004	+·020	+·026	−·009	−·052	−·002
	Srinagar	+·056	+·081	+·063	+.048	+.107	+·068	+·068	+·045	+·083	+·045	+·024	+·005	+·058
	Kailang	−·006	0	+·013	−·001	+·004	−.009	−·016	−·023	+·009	+·015	+·011	?	?
	Simla (Ridge)	−·033	−·038	−·014	−·046	−·020	−·030	−·035	−·041	−·020	+·010	−·009	−·030	−·026
	Chakrata	−·013	−·029	−.001	−·035	+·003	−·018	−·019	−·009	+·009	?	+·001	−·029	?
	Ranikhet	+·005	−·035	−·024	−·051	−.003	−·029	−·005	−·004	+·009	−·011	−·007	−.042	−·016
	Katmandu	−·024	−·025	−·013	−·003	+.010	−·009	−·003	+·010	+·019	−·028	−·018	−·043	−·011
	Darjeeling	?	+·012	+·017	+·003	−.008	−·014	−·011	+·012	+·005	−·028	−·017	−·027	?
Hill Stations, Central India.	Mount Abu	−·027	−·038	+·001	+·047	−·016	−·046	−·006	−·013	+·018	+·041	−·027	−·006	−·006
	Pachmarhi	−·016	−·035	−·045	+·007	−·027	−·051	+·020	+·008	+·030	+·014	+·025	+·038	−·003
	Chikalda	−·035	−·075	−·076	+·006	−·031	−·017	+·018	+·013	+·030	+·039	+·004	+·063	−·005
Hill Station, Southern India.	Wellington	−·013	−·015	−·029	?	?	?	?	?	?	?	?	?	?
Extra Indian Stations.	Aden	−·025	−·054	−.073	+·013	?	+·028	?	+·133	−·002	+·023	+·042	−·033	?
	Perim	+·183	+·092	+·087	+.184	+·232	+·171	+·202	+·173	+·176	?	+·097	?	?
	Zanzibar	−·037	−·032	−·009	+·038	+·025	+·030	+·036	+·020	+·038	+·026	+·051	+·022	+·017
	Port Victoria (Seychelles)	−·011	+.015	+·028	?	+·063	+·051	+·053	+·071	+·049	+·032	+·028	+·004	?
	Mauritius (Pamplemouses.)	−·046	+ 002	−·036	−·011	−·011	+.036	+·025	+·019	+·017	+·030	+·030	+·067	+·010

TABLE XXII.—*Comparison of the monthly mean relative humidity data of 1902 with the averages of past years.*

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Burma Coast and Bay Islands.	Port Blair	−5	+1	0	−2	+1	−1	−3	+1	+1	−4	+1	+1	−1
	Rangoon	+1	+4	−3	−3	+3	−2	−1	−1	−2	−3	−6	−5	−2
	Diamond Island	−3	−6	−3	−4	+5	−1	−2	−3	−1	−2	−7	−6	−3
	Cocos Island	−3	+1	0	−5	−2	−1	?	?	?	?	?	?	?
Bengal and Orissa	Chittagong	+4	−4	−2	+3	0	+1	+2	−2	0	−1	−3	−2	0
	Calcutta (Alipore)	−6	−13	−3	+4	+3	−4	−2	−5	−3	−7	−4	−9	−4
	Saugor Island	−3	−9	+2	0	−1	−3	−1	−3	−3	−6	−5	−5	−3
	False Point	−3	−7	0	−2	0	−2	0	0	−2	−4	−2	−3	−2
Gangetic Plain and Chota Nagpur.	Hazaribagh	−3	−6	+1	+4	+6	−15	−5	−6	−2	−4	−5	−8	−4
	Darbhanga	−5	−8	+2	+12	+8	0	+1	−1	+2	+1	+1	−5	+1
	Allahabad	−5	−8	−4	+2	+3	−13	−1	−5	+3	−3	−3	−5	−3
Upper Sub-Himalayas.	Dehra Dun	−13	−23	−10	−5	0	−9	−2	−4	+1	+3	+1	−9	−6
	Roorkee	−7	−20	−14	−3	+2	+1	+3	0	+4	+5	+3	−3	−2
	Meerut	−12	−19	−13	−6	−5	+1	+6	−2	+2	+4	−2	−12	−5
	Lahore	−12	−18	−5	0	+4	+4	0	−2	+7	+11	+4	−2	−1
	Ludhiana	−18	−23	−14	−9	−4	−3	−3	−11	+3	−1	−5	−10	−8
North-West Frontier, Indus Valley and North-West Rajputana.	Peshawar	−17	−20	−5	−5	−5	−1	−2	−12	−2	+8	+3	−5	−5
	Jacobabad	−9	−8	+3	+5	?	?	?	?	?	?	?	?	?
	Kurrachee	−1	−7	+6	+2	+2	+3	−3	−3	−1	+3	0	−4	0
East Rajputana, Central India and Gujarat.	Jaipur	−14	−10	−6	−4	−3	−6	−6	−11	+3	+3	−5	−14	−6
	Deesa	−9	−13	−6	+2	0	−3	−18	−10	+3	+6	−2	−3	−4
Deccan	Belgaum	0	−2	+5	+2	+2	−4	+2	−5	+3	+5	+8	+24	+3
	Sholapur	−7	−6	−7	+1	−4	−3	−5	−6	0	−9	+2	+14	−3
	Akola	−7	−9	−10	+1	+6	−10	−1	−8	0	0	+2	+9	−2
	Buldana	−9	−13	−12	0	−4	−15	−5	−9	−1	−2	+1	+11	−5
	Khandwa	−2	−7	−10	−3	−3	−13	−5	−9	+1	+2	+7	+8	−3
	Nagpur	−7	−11	−14	−4	−7	−14	−3	−6	+2	0	−4	+7	−5
	Hyderabad (Deccan)	?	?	?	?	?	?	?	?	?	−4	+2	+6	?
West Coast	Bombay	−2	−3	0	0	−3	−5	−2	−5	+2	−4	−6	0	−2
	Karwar	−2	−5	−2	0	+3	−2	−1	−3	−2	−3	−2	+6	−1

TABLE XXII.—*Comparison of the monthly mean relative humidity data of 1902 with the averages of past years*—concld.

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
South India	Salem	+5	+11	+11	+10	+3	−4	+1	+1	+2	+4	+5	+9	+5
	Chitaldroog	+4	+4	−1	0	0	−3	+2	−6	+5	+3	+4	+12	+2
	Bangalore	−3	−4	−5	+3	−1	−7	−5	−5	+3	+1	+4	+8	−1
	Hassan	−1	−4	−9	0	0	−4	+2	−2	+3	−2	+2	+10	0
	Mysore	−3	−4	−2	0	0	−6	+2	−4	+5	−1	+5	+9	0
	Madras	+4	+2	+3	0	−3	−2	+1	+4	+6	+4	+2	+4	+2
	Bellary	−6	+7	+3	0	+4	+3	+1	−5	0	+1	+3	+2	+1
Hill Station, Baluchistan.	Quetta	−11	−19	−12	−7	−3	−2	−11	−7	−2	+7	+8	+4	−5
Hill Stations, Northern India.	Leh	−31	−29	+1	+7	+4	+7	+5	+4	+6	+8	−8	?	?
	Srinagar	+3	+	+5	+12	+12	+11	+8	+6	+6	0	+2	0	+6
	Kailang	−13	−9	+5	+7	0	+1	+2	0	+2	+4	+12	?	?
	Simla (Ridge)	−19	−20	−4	−4	−2	0	−2	−6	+2	+10	0	−8	−4
	Chakrata	−16	−22	−1	−1	+1	−3	0	0	+4	?	−1	−13	?
	Ranikhet	−4	−19	−8	−5	−3	−4	+1	−3	+1	+3	−1	−12	−5
	Katmandu	−10	−10	−5	+1	+1	+1	+2	0	+3	+3	−1	−3	−2
	Darjeeling	?	−2	0	+7	−2	−3	−2	−2	−1	+2	−7	−14	?
Hill Stations, Central India.	Mount Abu	−11	−12	−6	+3	−2	−5	−11	−9	0	+6	−5	−2	−5
	Pachmarhi	−6	−10	−11	−1	−5	−13	−2	−6	+2	+2	+6	+7	−3
	Chikalda	−10	−13	−12	+1	−5	−11	−5	−5	0	+3	+2	+14	−3
Hill Station, Southern India.	Wellington	−4	−3	−5	?	?	?	?	?	?	?	?	?	?
Extra Indian Stations.	Aden	−3	−6	−8	−3	?	+4	?	0	0	0	0	−4	?
	Perim	+19	+9	+7	+14	+14	+13	+13	+8	+14	?	+7	?	?
	Zanzibar	−4	0	−1	+2	0	0	0	−1	+1	+2	+1	+3	0
	Port Victoria (Seychelles)	+3	+4	+3	?	+7	+6	+5	+7	+6	+3	+2	0	?
	Mauritius (Pamplemouses).	−2	+1	−2	−1	−2	0	+1	0	0	+1	+1	+6	0

TABLE XXIII.—*Geographical summary of the aqueous vapour pressure data of Table II in the monthly weather reviews of 1902.*

METEOROLOGICAL AREA.	Number of stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
		"	"	"	"	"	"	"	"	"	"	"	"	"
North-West Himalaya	5—6	—·005	—·007	+·007	—·011	+·018	0	—·001	—·006	+·018	+·017	+·002	—·030	0
Sikkim Himalaya and Nepal	1—2	—·024	—·007	+·002	0	+·001	—·012	—·007	+·011	+·012	—·028	—·018	—·035	—·009
Punjab Plains	3	—·060	—·065	—·025	—·042	+·006	—·007	—·028	—·065	+·022	+·065	+·018	—·039	—·018
Gangetic Plain	5	—·028	—·063	—·018	0	+·027	—·036	—·008	+·003	+·021	+·010	0	—·043	—·011
Western Rajputana	3—4	—·019	—·043	+·047	+·090	+·006	—·018	—·002	—·013	+·043	+·086	+·044	—·007	+·018
Eastern Rajputana and Central India	1	—·048	—·010	+·029	—·019	—·017	—·049	—·004	—·027	+·055	+·051	—·009	—·071	—·010
Nerbudda Valley	1	+·026	—·019	—·051	—·015	—·021	—·071	+·014	—·022	+·031	+·045	+·052	+·057	+·002
Chota Nagpur	1	+·006	—·007	+·043	+·053	+·046	—·069	—·029	—·015	+·039	—·027	—·024	—·042	—·002
Lower Bengal	2	+·004	—·069	+·030	+·014	+·004	—·007	—·008	+·011	+·012	—·032	—·032	—·040	—·009
Orissa	1	+·005	—·032	+·050	+·015	+·023	+·010	+·011	+·032	+·019	—·018	—·034	—·012	+·006
Central Provinces (South) and Berar	5	—·029	—·066	—·086	—·003	—·012	—·057	+·014	—·012	+·023	+·016	+·004	+·063	—·012
Konkan	2	+·029	—·018	+·034	+·037	+·055	—·007	+·012	+·015	+·013	+·019	+·003	+·072	+·022
Deccan, Hyderabad and Mysore	7—8	—·018	—·017	—·010	+·007	+·024	—·001	+·022	0	+·028	+·003	+·033	+·104	+·015
East Coast and Carnatic	2	+·046	+·054	+·088	+·074	+·027	+·021	+·030	+·055	+·059	+·033	+·071	+·094	+·054
Arakan and Pegu	3	+·028	—·002	+·005	—·020	+·001	+·021	+·006	+·015	+·009	—·014	—·047	—·039	—·003
Bay Islands	1—2	—·017	+·020	+·018	+·014	+·020	+·014	+·018	+·017	+·013	+·021	—·008	+·041	+·014
Extra-Tropical India	24—26	—·018	—·036	+·008	+·009	+·013	—·019	—·007	—·010	+·024	+·022	+·005	—·030	—·003
Tropical India	20—22	—·004	—·016	—·011	+·011	+·015	—·008	+·017	+·007	+·025	+·009	+·013	+·067	+·010
Whole India	45—48	—·011	—·027	—·001	+·009	+·014	—·014	+·004	—·002	+·024	+·016	+·009	+·015	+·003

TABLE XXIV—*Geographical summary of the humidity data of Table II in the monthly weather reviews of 1902.*

METEOROLOGICAL AREA.	Number of stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
North-West Himalaya	4—6	—13	—16	0	+3	+2	+2	+2	0	+4	+5	+1	—8	—2
Sikkim Himalaya and Nepal	1—2	—10	—6	—3	+4	—1	—1	0	—1	+1	+3	—4	—9	—2
Punjab Plains	3	—16	—20	—8	—5	—2	0	—2	—8	+3	+6	+1	—6	—5
Gangetic Plain	5	—8	—16	—8	0	+2	—4	+1	—2	+2	+2	0	—7	—3
Western Rajputana	3—4	—8	—10	—1	+3	0	—2	—11	—7	+1	+5	—2	—3	—3
Eastern Rajputana and Central India	1	—14	—10	—6	—4	—3	—6	—6	—11	+3	+3	—5	—14	—6
Nerbudda Valley	1	—2	—7	—10	—3	—3	—13	—5	—9	+1	+2	+7	+8	—3
Chota Nagpur	1	—3	—6	+1	+4	+6	—15	—5	—6	—2	—4	—5	—8	—4
Lower Bengal	2	—5	—11	—1	+2	+1	—4	—2	—4	—3	—7	—5	—7	—4

TABLE XXIV.—*Geographical summary of the humidity data of Table II in the monthly weather reviews of 1902*—concld.

METEOROLOGICAL AREA.	Number of Stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
Orissa	1	−3	−7	0	−2	0	−2	0	0	−2	−4	−2	−3	−2
Central Provinces (South) and Berar	5	−8	−11	−12	−1	−3	−13	−3	−7	+1	+1	+1	+10	−4
Konkan	2	−2	−4	−1	0	0	−4	−2	−4	0	−4	−4	+3	−2
Deccan, Hyderabad and Mysore	7—8	−2	−1	−2	+1	0	−3	0	−5	+3	−1	+4	+11	0
East Coast and Carnatic	2	+5	+7	+7	+5	0	−3	+1	+3	+4	+4	+4	+7	+4
Arakan and Pegu	3	+1	−2	−3	−1	+3	−1	0	−2	−1	−2	−5	−4	−1
Bay Islands	1—2	−4	+1	0	−4	−1	−1	−3	+1	+1	−4	+1	+1	−1
Extra-Tropical India	23—26	−10	−13	−3	+1	+1	−2	−1	−4	+2	+2	−1	−6	−3
Tropical India	20—22	−3	−3	−3	0	0	−5	−1	−4	+1	−1	+1	+7	−1
Whole India	44—48	−6	−8	−3	0	0	−4	−1	−4	+1	+1	0	0	−2

TABLE XXV.—*Variations of the mean monthly aqueous vapour pressure from the normal in nine meteorological provinces of India in 1902.*

METEOROLOGICAL PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
	"	"	"	"	"	"	"	"	"	"	"	"	"
Burma Coast and Bay Islands.	−·001	+·016	+·008	+·005	+·015	+·010	+·013	+·014	+·010	+·007	−·026	−·010	+·005
Bengal and Orissa	+·017	−·050	+·032	−·001	+·003	+·012	−·002	+·018	+·014	−·031	−·043	−·035	−·006
Gangetic Plain and Chota Nagpur.	−·005	−·021	+·044	+·076	+·061	−·054	−·012	+·001	+·027	−·012	−·011	−·036	+·005
Upper Sub-Himalayas	−·049	−·083	−·052	−·055	+·003	−·022	−·018	−·018	+·026	+·035	+·005	−·050	−·023
North-West Frontier Province, Indus Valley and North-West Rajputana.	−·017	−·027	+·082	+·085	+·028	+·016	+·019	−·044	+·025	+·107	+·084	−·011	+·029
East Rajputana, Central India and Gujarat.	−·048	−·050	−·009	+·005	−·020	−·044	−·035	−·037	+·058	+·067	−·007	−·041	−·013
Deccan	−·018	−·053	−·064	−·008	−·002	−·051	+·010	−·020	+·024	+·008	+·016	+·092	−·006
West Coast	+·029	−·018	+·034	+·037	+·055	−·007	+·012	+·015	+·013	+·019	+·003	+·072	+·022
South India	+·001	+·010	+·019	+·033	+·030	+·007	+·028	+·018	+·037	+·015	+·047	+·092	+·028

TABLE XXVI.—*Variations of the mean monthly relative humidity from the normal in nine meteorological provinces of India in 1902.*

METEOROLOGICAL PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
Burma Coast and Bay Islands.	−3	0	−2	−4	+2	−1	−2	−1	−1	−3	−4	−3	−2
Bengal and Orissa .	−2	−8	−1	+1	+1	−2	0	−3	−2	−5	−4	−5	−3
Gangetic Plain and Chota Nagpur.	−4	−7	0	+6	+6	−9	−2	−4	+1	−2	−2	−6	−2
Upper Sub-Himalayas	−12	−21	−11	−5	−1	−1	+1	−4	+3	+4	0	−7	−5
North-West Frontier Province, Indus Valley and North-West Rajputana.	−9	−12	+1	+1	+5	+1	−3	−8	−2	+6	+5	−5	−2
East Rajputana, Central India and Gujarat.	−12	−12	−6	−1	−2	−5	−12	−11	+3	+5	−4	−9	−6
Deccan . . .	−5	−8	−8	−1	−2	−10	−3	−7	+1	−1	+3	+11	−3
West Coast . .	−2	−4	−1	0	0	−4	−2	−4	0	−4	−4	+3	−2
South India . .	0	+2	0	+2	0	−3	+1	−2	+3	+1	+4	+8	+1

I.—The cold weather period.—This period was remarkable for the abnormal dryness of the air over the greater part of India accompanying an almost entire absence of cold weather storms and rainfall in the plains of Northern India. The relative humidity was more or less largely below the normal over the whole of North-Western and Central India, and was generally in slight defect in the Peninsula and North-Eastern India.

The following gives data for the areas in which the mean relative humidity was more than 10 below the normal:—

AREA.	VARIATION OF MEAN ABSOLUTE HUMIDITY FROM NORMAL IN			VARIATION OF MEAN RELATIVE HUMIDITY FROM NORMAL IN		
	January.	February.	Period, January and February.	January.	February.	Period, January and February.
	"	"	"			
Punjab . . .	−·060	−·065	−·063	−16	−20	−18
Rajputana . .	−·048	−·050	−·049	−12	−12	−12
United Provinces of Agra and Oudh .	−·031	−·071	−·051	−9	−18	−14

The following gives data for stations in the area of greatest relative dryness of the air :—

STATION.	VARIATION OF MEAN 8 A.M. ABSOLUTE HUMIDITY FROM NORMAL IN			VARIATION OF MEAN 8 A.M. RELATIVE HUMIDITY FROM NORMAL IN		
	January.	February.	Period, January and February.	January.	February.	Period, January and February.
	"	"	"			
Rawalpindi . .	−·086	−·098	−·092	−29	−35	−32
Khushab . .	−·112	−·092	−·102	−33	−34	−34
Montgomery . .	−·107	−·131	−·119	−29	−35	−32
Peshawar . .	−·049	−·065	−·057	−14	−28	−21
Ludhiana . .	−·062	−·095	−·079	−13	−24	−19
Sialkot . . .	−·073	−·073	−·073	−16	−20	−18
Umballa . .	−·052	−·091	−·072	−10	−25	−18
D. I. Khan . .	−·050	−·080	−·065	−10	−23	−17
Mooltan . .	−·062	−·118	−·090	−11	−21	−16

This area of excessive dryness hence included nearly the whole of the Punjab.

This feature was almost as strongly marked at the hill stations in Upper India, as is shown by the following data :—

Station.	Variation of mean 8 A.M. absolute humidity from normal in			Variation of mean 8 A.M. relative humidity from normal in		
	January	February.	Period, January and February	January.	February.	Period, January and February.
	"	"	"			
Gilgit	—·016	—·022	—·019	—8	—17	—13
Cherat	—·061	—·054	—·058	—32	—30	—31
Murree	—·026	—·003	—·015	—25	—19	—22
Simla	—·027	—·028	—·028	—17	—19	—18
Chakrata	—·012	—·026	—·019	—13	—19	—16
Ramkhet	—·008	—·037	—·023	—6	—19	—13

The air was slightly drier than usual in Baluchistan.

The following gives mean data for seventeen meteorological divisions :—

Province or Division.	Variation of mean daily absolute humidity from normal in			Variation of mean daily relative humidity from normal in		
	January	February.	Period, January and February.	January.	February.	Period, January and February.
	"	"	"			
Burma	+·015	+·011	+·013	—1	—1	—1
Bengal	+·021	—·055	—·017	—2	—9	—6
Orissa	+·005	—·032	—·014	—3	—7	—5
Bihar	—·016	—·030	—.023	—5	—8	—7
Chota Nagpur	+·006	—·007	—·001	—3	—6	—5
U. P. of Agra & Oudh	—·031	—·071	—·051	—9	—18	—14
Punjab	—·060	—·065	—·063	—16	—20	—18
Sind	0	—·022	—·011	—5	—8	—7
Rajputana	—·048	—·050	—·049	—12	—12	—12
Central Provinces	+·003	—·049	—·023	—5	—9	—7
Berar	—·037	—·071	—·054	—8	—11	—10
West Coast	+·029	—·018	+·006	—2	—4	—3
Bombay Deccan	—·020	—·040	—·030	—4	—4	—4
Mysore	—·011	—·028	—·020	—1	—2	—2
Madras Coast	+·042	+·015	+·029	+4	+2	+3
Madras Deccan	—·041	+·072	+·016	—6	+7	+1
South India	+·050	+·092	+·071	+5	+11	+8

As might be expected, unusually low humidities were reported during the period. The following gives the most noteworthy and lowest recorded at stations in the abnormally dry area in North-Western India during the driest periods :—

Station.	Date.	Hour.	Lowest humidity recorded during February.
			%
Jamnagar	3rd February.	4 P.M.	1
Deesa	8th "	10 A.M.	4
Meerut	2nd "	4 P.M.	4
Jamnagar	1st "	" "	5
Deesa	1st "	" "	6
Roorkee	7th "	" "	7
Peshawar	5th "	10 A.M.	9

II.—The hot weather period.—The humidity conditions were much less abnormal in this than the preceding period. Weather was somewhat more disturbed than usual in the Himalayan hill districts of North-Western India in March, and the air was on the mean of the month slightly damper than usual in Kashmir during March and the two following months. Humidity also increased considerably, relative to the conditions obtaining in January and February, in the Punjab, Sind and Rajputana, but was below the normal value in the first and third areas in March and April and practically normal in May. The months of April and May were characterized by unusually frequent thunderstorms and heavy rain than usual in North-Eastern India, and the air was hence damper than usual in these areas during these two months. The air was very dry in Central India, Berar and the Central Provinces in March, but the increased indraught of local sea winds due to the persistent high temperature generally prevailing in the interior throughout the season raised the humidity on the average slightly above the normal in May over the greater part of that area. The variations in the remainder of India were small and of little significance.

The following gives mean variation data of the period for comparison :—

Province or Division.	Variation of mean daily absolute humidity from normal in				Variation of mean daily relative humidity from normal in			
	March.	April.	May.	Period, March to May.	March.	April.	May.	Period, March to May.
	"	"	"	"				
Burma	—·002	—·007	+·010	0	—3	—4	+4	—1
Bengal	+·026	—·006	—·003	+·006	—1	+2	+1	+1
Orissa	+·050	+·015	+·023	+·029	0	—2	0	—1

Province or Division.	Variation of mean daily absolute humidity from normal in				Variation of mean daily relative humidity from normal in			
	March.	April.	May.	Period, March to May.	March.	April.	May.	Period, March to May.
	"	"	"	"				
Bihar	+·069	+·130	+·071	+·090	+2	+12	+8	+7
Chota Nagpur	+·043	+·053	+·046	+·047	+1	+4	+6	+4
U. Prov. of Agra and Oudh.	−·039	−·033	+·016	−·019	−10	−3	0	−4
Punjab	−·025	−·042	+·006	−·020	−8	−5	−2	−5
Sind	+·118	+·142	+·058	+·106	+5	+4	+2	+4
Rajputana	−·009	+·005	−·020	−·008	−6	−1	−2	−3
Central Provinces	−·085	−·032	−·056	−·058	−12	−4	−5	−7
Berar	−·094	+·011	+·044	−·013	−11	+1	+1	−3
West Coast	+·034	+·037	+·055	+·042	−1	0	0	0
Bombay Deccan	−·012	−·003	+·005	−·003	−1	+2	−1	0
Mysore	−·032	+·013	+·024	+·002	−4	+1	0	−1
Madras Coast	+·041	+·012	+·005	+·019	+3	0	−3	0
Madras Deccan	+·085	−·002	+·064	+·049	+3	0	+4	+2
South India	+·135	+·135	+·049	+·106	+11	+10	+3	+8

The air was considerably drier in Baluchistan and Persia, but damper in Thibet during the period. The following gives data:—

Station.	Variation of mean 8 A.M. absolute humidity from normal in				Variation of mean 8 A.M. relative humidity from normal in			
	March.	April.	May.	Period, March to May.	March.	April.	May.	Period, March to May.
	"	"	"	"				
Quetta	−·006	−·028	+·027	−·002	−13	−4	+3	−5
Chaman	+·030	−·041	+·049	+·013	−6	−17	+2	−7
Bushire	+·066	+·165	−·034	+·066	+1	+15	−6	+3
Ispahan	−·063	−·001	+·009	−·018	−26	−1	−4	−10
Baghdad	+·016	+·031	−·040	+·002	+3	+1	−12	−3
Leh	+·042	+·034	−·015	+·020	+22	+14	−6	+10

Although the absolute humidity increases during the period over the whole of India due to the increasing influx of sea winds across the coasts, the relative humidity decreases owing to the rapid increase of temperature and the high temperature. Hence not only does the relative humidity decrease in Northern and Central India from March to May, but in the driest periods remarkably low humidities are recorded. The following gives the lowest humidities recorded at the driest stations during the period at 8 A.M. at third class observing stations and at 8 A.M., 10 A.M. or 4 P.M. at second class recording stations:—

Station.	March 1902.			April 1902.			May 1902.		
	Date.	Hour.	Lowest humidity.	Date.	Hour.	Lowest humidity	Date.	Hour.	Lowest humidity.
			%			%			%
Nagpur	22nd	4 P. M.	8	29th	10 A.M. and 4 P. M.	7	5th	4 P. M.	8
"	26th	"	8				6th	"	8
							7th	"	9
Akola	25th	"	5						
"	28th	"	5						
Buldana	26th	"	5	29th	4 P. M.	8	5th	"	5
							6th	"	9
Deesa	27th	"	6	28th	10 A.M.	5	4th	"	
							5th	"	6
Belgaum	28th	"	8						
Khandwa	28th	"	7	29th	4 P. M.	7	7th	"	9
Meerut	30th	"	8	21st	"	5	7th	"	8
Roorkee	30th	"	3	21st	"	4			
Hazaribagh	30th	10 A.M.	8						
Dehra Dun				21st	"	7			
				22nd	"	9			
Mount Abu							4th	10 A.M.	8
							4th	8 A. M.	9
Pachmarhi				29th & 30th.	"	6	4th	4 P. M.	9
							5th	"	9
Chikalda							5th	"	8
							5th	10 A.M.	9
Jaipur				26th	10 A.M. and 4 P. M.	7	6th	4 P. M.	8
							7th	"	9

III.—The south-west monsoon period.—The variations in the humidity conditions of the period were determined by the variations in the strength and rain-giving capacity of the monsoon currents.

The Bombay current was much weaker than usual and very unsteady until the third week of August, when it increased in strength and volume and gave abundant rain over its field of extension until nearly the end of September. The Bay current was slightly weaker in June and July and normal in strength, but unsteady in August and September. The humidity conditions hence throughout the period differed very slightly from the normal over Burma and the greater part of North-Eastern India. In the north of the Peninsula, Central India, Chota Nagpur and Rajputana the air was, on the average of the period, much drier than usual. The humidity conditions were practically normal in September on the mean of the month over the whole of India.

The following gives comparative data for seventeen meteorological divisions for each month of the period and the whole period:—

Province or Division.	Variation of mean daily absolute humidity from normal in					Variation of mean daily relative humidity from normal in				
	June.	July.	August.	September.	Period, June to September.	June.	July.	August.	September.	Period, June to September.
	"	"	"	"	"					
Burma	+·006	+·011	+·012	+·008	+·009	—2	—2	—2	—2	—2
Bengal	+·013	—·006	+·014	+·012	+·008	—2	0	—3	—2	—2
Orissa	+·010	+·011	+·032	+·019	+·018	—2	0	0	—2	—1
Bihar	+·023	+·017	+·033	+·005	+·020	0	+1	—1	+2	+1
Chota Nagpur	—·069	—·029	—·015	+·039	—·019	—15	—5	—6	—2	—7
U. Prov. of Agra and Oudh.	—·051	—·015	—·005	+·025	—·012	—5	+2	—3	+3	—1
Punjab	—·007	—·028	—·065	+·022	—·020	0	—2	—8	+3	—2
Sind	+·030	+·067	+·021	+·049	+·042	+3	—3	—3	—1	—1
Rajputana	—·044	—·035	—·037	+·058	—·015	—5	—12	—11	+3	—6
Central Provinces	—·069	+·008	—·019	+·029	—·013	—14	—4	—8	+2	—6
Berar	—·076	+·015	—·034	+·015	—·020	—13	—3	—9	—1	—7
West Coast	—.007	+·012	+·015	+·013	+·008	—4	—2	—4	0	—3
Bombay Deccan	—·009	+·008	—·006	+·029	+·006	—4	—2	—6	+2	—3
Mysore	—·009	+·026	+·007	+·033	+·014	—5	0	—4	+4	—1
Madras Coast	+.029	+·043	+·073	+·077	+·056	—2	+1	+4	+6	+2
Madras Deccan	+.043	+·032	—·015	+·008	+·017	+3	+1	—5	0	0
South India	+·013	+·016	+·036	+·040	+·026	—4	+1	+1	+2	0

The data of the preceding table indicate that the abnormal dryness of the air due to the weakness of the Bombay current was most pronounced in June in an area including Berar, the Central Provinces, Chota Nagpur, Central India and the south-eastern and central districts of the United Provinces. The following gives humidity data of the month for twelve stations in this dry area :—

Station.	Variation from normal of			
	Mean daily.		Mean 8 a.m.	
	Absolute humidity.	Relative humidity.	Absolute humidity.	Relative humidity.
	"		"	
Hazaribagh	—·069	—15	—·085	—17
Allahabad	—·117	—13	—·130	—17
Lucknow			—·099	—6
Nowgong			—·129	—18
Jubbulpore			—·065	—16
Khandwa	—·071	—13	—·042	—12
Nagpur	—·066	—14	—·055	—11
Chanda			—·080	—14
Raipur			—·169	—28
Sambalpur			+·038	—12
Akola	—·055	—10	—·073	—14
Buldana	—·096	—15		

In July, due to the increasing influence of the Bay current, the area of greatest deficiency in the mean humidity values of the month shifted westwards to Rajputana, North Bombay and Baluchistan.

The following table gives data for the stations at which the relative humidity was 10 or more in defect :—

Station.	Variation from normal of			
	Mean daily.		Mean 8 a.m.	
	Absolute humidity.	Relative humidity.	Absolute humidity.	Relative humidity.
	"		"	
Deesa	—·066	—18	—·022	—14
Mount Abu	—·006	—11	0	—8
Quetta	—·114	—11	—·042	—4
Bikaner			—·016	—7
Ahmedabad			—·019	—9
Pachpadra			+·016	—9

In August the area of greatest deficiency shifted northwards and included the greater part of the Punjab, Rajputana and Upper Sind (probably). A second area of large deficiency lay over Berar and a part of the Central Provinces. In the following table are given comparative

data for stations in these areas where the mean relative humidity of the month was at least 8 in defect :—

Station.	Variation from normal of			
	Mean daily.		Mean 8 a. m.	
	Absolute humidity.	Relative humidity.	Absolute humidity.	Relative humidity.
	"		"	
Peshawar	—·109	—12	—·097	—14
Rawalpindi			—·113	—18
Ludhiana	—·070	—11	—·040	—8
Jaipur	—·027	—11	—·024	—7
Deesa	—·047	—10	—·034	—8
Ahmedabad			—·025	—7
Sambhar			—·034	—9
Saugor			—·052	—11
Seoni			—·044	—11
Raipur			—·028	—9
Amraoti			—·046	—13
Khandwa	—·022	—9	—·019	—9
Akola	—·025	—8	—·023	—8

The humidity conditions in September were approximately normal, and the air was very slightly damper than usual over the greater part of the area.

IV.—The retreating south-west monsoon period.—The variations of the humidity conditions from the normal during this period were chiefly determined, firstly, by the early deflection of the retreating monsoon current from Burma and the east of the Bay to the Peninsula, secondly, by the heavy and late rains in Upper India in September, thirdly, by the advance of a series of feeble low pressure waves or depressions across Baluchistan into Upper India and, fourthly, by the establishment in December of conditions favouring a drier cold weather than usual.

The following gives variation data for each month of the period and the whole period for seventeen provinces :—

Province or Division.	Variation of mean daily absolute humidity from normal in				Variation of mean daily relative humidity from normal in			
	October.	November.	December.	Period, October to December.	October.	November.	December.	Period, October to December.
	"	"	"	"				
Burma	—·001	—·035	—·035	—·024	—3	—7	—6	—5
Bengal	—·036	—·045	—·042	—·041	—5	—4	—5	—5
Orissa	—·018	—·034	—·012	—·021	—4	—2	—3	—3
Bihar	0	+·007	—·041	—·011	+1	+1	—5	—1
Chota Nagpur	—·027	—·024	—·042	—·031	—4	—5	—8	—6
U Prov. of Agra and Oudh	+·013	—·002	—·044	—·011	+2	0	—7	—2
Punjab	+·065	+·018	—·039	+·015	+6	+1	—6	0
Sind	+·134	+·105	—·003	+·079	+3	+6	—4	+2
Rajputana	+·067	—·007	—·041	+·006	+5	—4	—9	—3
Central Provinces	+·025	+·013	+·058	+·032	+1	+2	+8	+4
Berar	+·010	+·008	+·077	+·032	—1	+2	+10	+4
West Coast	+·019	+·003	+·072	+·031	—4	—4	+3	—2
Bombay Deccan	—·003	+·028	+·141	+·055	—2	+5	+19	+7
Mysore	+·009	+·040	+·102	+·050	0	+4	+10	+5
Madras Coast	+·031	+·045	+·052	+·046	+4	+2	+4	+3
Madras Deccan	—·002	+·025	+·071	+·031	—2	+3	+4	+2
South India	+·035	+·096	+·126	+·086	+4	+5	+9	+6

The early deflection of the Bay current from North Eastern India and Burma and the deficient and scanty rainfall in these areas in October was accompanied with and followed by drier weather than usual over the greater part of that area. The following gives variation data for representative stations :—

Station.	Variation of mean 8 a.m. absolute humidity from normal in				Variation of mean 8 a.m. relative humidity from normal in			
	October.	November.	December.	Period, October to December.	October.	November.	December.	Period, October to December.
	"	"	"	"				
Diamond Island	+·020	—·026	—·006	—·004	0	—4	—3	—2
Rangoon	—·007	—·020	+·032	+ ·00	—4	—6	0	—3
Mandalay	—·040	—·050	—·017	—·036	0	—3	—5	—3
Saugor Island	—·019	—·011	—·038	—·023	—4	0	—5	—3
Calcutta	+·014	—·00	—·023	—·003	0	+2	—4	—1
False point	—·019	—·041	—·001	—·020	—4	—2	—2	—3
Jessore	—·019	—·042	—·046	—·036	+2	0	—6	—1
Berhampore	—·026	—·002	—·032	—·020	—3	—2	—7	—4
Dhubri	—·038	—·025	—·020	—·028	—1	—2	+1	—1

Humidity was more or less considerably above the normal in Upper India and Baluchistan in October and November, but fell considerably below it in December in the Punjab as the result of the third and fourth actions or conditions stated above.

The following gives comparative data illustrating these features :—

Station.	Variation of mean absolute humidity from normal in				Variation of mean relative humidity from normal in			
	October.	November.	December.	Period, October to December.	October.	November.	December.	Period, October to December.
	"	"	"	"				
Peshawar	+·077	+·044	—·029	+·031	+4	+3	—3	+1
Lahore	+·116	+·030	—·034	+·037	+11	+3	+3	+6
Mooltan	+·080	—·001	—·050	+·010	+9	—4	—6	0
Jacobabad	+·211	+·096	+·014	+·107	+20	+14	+11	+15
Simla	+·029	+·003	—·013	+·006	+9	+2	—4	+2
Murree	+·045	+·029	—·024	+·017	+11	+7	—11	+2
Quetta	+·060	+·060	+·006	+·042	+13	+17	+9	+13

The most important feature was the steady excess of the humidity values in the Peninsula throughout the period, increasing in amount from October to December.

The following gives comparative data for twelve stations in that area, month by month, during the period :—

Station.	Variation of mean absolute humidity from normal in				Variation of mean relative humidity from nromal in			
	October.	November.	December.	Period, October to December.	October.	November.	December.	Period, October to December.
	"	"	"	"				
Khandwa	+·078	+·065	+·079	+·074	+7	+11	+12	+10
Akola	+·057	+·034	+·108	+·066	+4	+5	+15	+8
Poona	+·061	+·063	+·153	+·092	+5	+13	+25	+14
Belgaum	+·036	+·081	+·173	+·097	+3	+10	+26	+13
Sholapur	+·010	+·053	+·148	+·070	—1	+8	+20	+9
Bellary	+·016	—·050	+·068	+·045	+3	+8	+4	+5
Madras	+·001	+·023	+·065	+·030	+1	+1	+4	+2
Chitaldroog	—·005	—·047	+·131	+·058	—1	+9	+15	+8
Bangalore	+·005	+·050	+·080	+·045	—1	+7	+7	+4
Mercara	+·012	+·068	+·096	+·059	+1	+11	+10	+7
Trichinopoly	+·033	+·053	+·108	+·065	+5	+7	+12	+8
Madura	+·035	+·048	+·094	+·059	+4	+4	+8	+5

The year.—The following are the more important features of the mean humidity conditions during the year 1902 in India :—

(1)—On the mean of the year the humidity of the whole of India was in very slight defect, a consequence solely of the unusually high temperatures of the year, for the vapour pressure was in excess by ·003".

(2)—In Extra Tropical India the relative and absolute humidities were both in slight defect.

(3)—In Tropical India, on the other hand, the amount of vapour in the air was greater than usual, more especially in the coast districts, but the increased temperatures prevailing in that region sufficed to reduce the humidity to below the normal on the average of the whole area.

(4). On the mean of the year the relative humidity was most largely in defect in the Punjab and Rajputana. The following gives comparative data for stations at which the mean humidity of the year was more than 3 in defect :—

Station.	Absolute humidity.		Relative humidity.	
	Actual, 1902.	Variation of actual from normal.	Actual, 1902.	Variation of actual from normal.
	"	"	%	
Dehra Dun	·442	—·027	57	—6
Meerut	·483	—·030	53	—5
Ranikhet	·328	—·016	60	—5
Ludhiana	·459	—·047	50	—8
Peshawar	·413	—·012	48	—5
Simla	·263	—·026	56	—4
Jaipur	·454	—·010	43	—6
Deesa	·463	—·017	41	—4
Buldana	·436	—·030	47	—5
Nagpur	·497	—·031	49	—5

The following gives the mean annual variations of the mean aqueous vapour pressure and humidity of the whole of India from the normal for each year from 1875 to 1902 :—

Year.	Annual variation of pressure of vapour.	Annual variation of relative humidity.
	"	
1875	—·004	+1
1876	—·017	—1
1877	+·011	+1
1878	+·020	0
1879	—·014	—1
1880	—·004	0
1881	+·001	0
1882	—·008	0
1883	—·013	—1
1884	—·012	0
1885	+·001	0
1886	+·008	+1
1887	—·012	—1
1888	—·005	—1
1889	+·003	—1
1890	—·003	—1
1891	—·007	0
1892	—·002	—1
1893	+·007	+3
1894	+·013	+2
1895	+·003	0
1896	—·010	—3
1897	+·005	—1
1898	—·008	—2
1899	—·026	—5
1900	+·002	—2
1901	+·002	—1
1902	+.003	—2

Cloud.

Normal values of the mean monthly and annual amount of cloud at second class stations, obtained from the whole of the available data up to the end of the year 1896, were given in Table XXI of the Annual Summary of 1896. These means are the arithmetical averages of the cloud amounts as registered at 10 A.M. and 4 P.M., and hence represent the mean amount during the day period rather than of the whole 24 hours. Corrections to reduce these means to true daily means have only been obtained in the case of a few stations.

Variation data of this element of meteorological observation for the year 1902 are given in Tables XXVII, XXVIII and XXIX. Table XXVIII gives the mean variation data for the sixteen meteorological areas adopted in the geographical summaries of meteorological data in the Annual Reports previous to 1891, and Table XXIX gives similar data for nine meteorological provinces of India.

TABLE XXVII.—*Comparison of the mean cloud proportion in each month of 1902 with the averages of past years.*

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Burma Coast and Bay Islands.	Port Blair	+0·9	+1·4	+0·2	−0·8	+0·6	−0·3	−1·1	+0·3	0	−1·2	+0·4	−0·2	0
	Rangoon	+2·2	+1·5	+0·5	+0·4	+0·3	−0·9	−0·1	−0·3	−0·6	−0·8	−0·7	+1·6	+0·3
	Diamond Island	+0·8	−0·2	−1·0	−0·5	+0·2	−0·8	+0·3	−0·7	−0·5	−1·7	−1·2	+0·1	−0·4
	Cocos Island	+1·3	+0·9	+0·1	−0·4	+0·4	−0·4	?	?	?	?	?	?	?
	Akyab	−1·2	−0·1	−0·5	+0·9	+0·1	+0·7	+0·5	−0·7	−0·2	−2·1	−1·9	−1·8	−0·5
Bengal and Orissa	Chittagong	−1·1	−0·1	−0·7	+1·6	+0·2	+0·5	+0·8	−0·4	+0·7	−0·9	−1·3	−0·7	−0·1
	Calcutta (Alipore)	−0·7	−0·2	−0·3	+2·2	+0·2	+0·7	+0·9	−0·1	+0·5	0	−1·1	+0·3	+0·2
	Saugor Island	−0·5	+0·4	−0·5	+1·9	+0·6	+0·2	+0·7	+0·1	+0·4	0	−0·4	+0·4	+0·3
	False Point	0	+0·4	−0·4	+1·8	+1·2	+0·2	+0·4	−0·2	+0·3	−0·2	+0·2	+0·6	+0·4
Gangetic Plain and Chota Nagpur.	Hazaribagh	−0·8	+0·3	−0·8	+2·2	+0·9	+0·6	+0·7	+0·8	+0·6	+0·3	−0·8	+0·7	+0·4
	Darbhanga	−0·5	−1·0	−0·5	+0·6	+0·1	+0·5	+0·1	+0·4	+0·8	0	−0·6	−0·1	0
	Allahabad	0	−0·1	−0·2	+1·5	+0·2	−2·1	+0·9	−0·3	+1·7	+1·0	−0·3	+0·2	+0·2
Upper Sub-Himalayas.	Dehra Dun	−2·8	−2·3	+0·4	+1·3	+0·8	−1·7	+0·4	−0·6	+1·0	+1·2	+0·5	−0·9	−0·2
	Roorkee	−2·4	−2·3	+0·2	+0·4	−0·7	−1·8	−0·2	−1·8	+0·3	+0·7	−0·1	−1·4	−0·8
	Meerut	−2·0	−2·0	−0·4	+1·2	+0·9	+2·0	+0·8	−1·6	+0·4	+0·3	0	−1·1	−0·1
	Lahore	−1·4	−2·1	+0·3	+1·5	−0·9	−1·3	−1·4	−1·1	+0·2	+0·1	+0·3	−1·1	−0·6
	Ludhiana	−2·9	−2·7	−0·9	−0·1	−1·1	−1·3	−1·5	−2·4	−0·1	+0·3	−0·1	−1·9	−1·2
North-West Frontier, Indus Valley and North-West Rajputana.	Peshawar	−2·5	−0·8	−0·2	+1·0	0	−0·8	−0·5	−0·9	+0·1	+1·1	+1·2	−1·4	−0·3
	Jacobabad	−0·6	−1·9	+0·2	+0·2	−0·4	+0·7	−0·9	−0·3	+0·6	+1·0	+0·3	−1·0	−0·2
	Kurrachee	−1·9	−1·7	−1·3	+0·4	−0·3	−0·5	−3·0	−2·8	−1·5	+0·7	−0·7	−1·0	−1·1
East Rajputana, Central India and Gujarat.	Jaipur	−0·3	−1·2	−0·5	+1·2	−0·5	−1·7	−0·4	−1·7	+1·1	+1·5	−0·5	−0·6	−0·3
	Deesa	−1·3	−1·6	−1·3	+0·2	−0·8	−1·5	−1·6	−1·4	−0·5	−0·7	−1·3	−0·4	−1·0

TABLE XXVII.—*Comparison of the mean cloud proportion in each month of 1902 with the averages of past year*—concld.

Meteorological Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Year.
Deccan	Belgaum	−0·1	+1·4	−0·6	−0·5	+0·6	−1·1	+0·3	−1·4	+0·4	+0·9	+1·6	+2·7	+0·4
	Sholapur	0	+1·1	−1·0	−0·9	0	−0·5	+0·1	−0·7	−0·3	+0·4	+1·1	+2·9	+0·2
	Akola	+0·4	+0·8	−1·5	−0·1	+0·5	−1·7	−0·1	−1·2	+0·3	+1·9	+0·1	+2·2	+0·1
	Buldana	−1·0	+0·3	−2·1	−1·3	−1·7	−3·6	−0·2	−0·9	+0·9	+1·2	−0·5	+1·3	−0·6
	Khandwa	+0·2	+1·2	−1·3	−0·3	−0·1	−1·5	−0·3	−1·1	+1·4	+1·6	+0·2	+2·6	+0·2
	Nagpur	−0·1	+0·7	−2·1	−0·2	−0·3	−2·8	−0·2	−1·4	−0·4	+0·3	−0·8	+1·5	−0·5
	Hyderabad (Deccan)	0	+0·8	−0·4	+0·7	+1·4	0	+0·1	+0·6	+0·3	+0·7	+1·9	+2·5	+0·7
West Coast	Bombay	−0·9	+1·3	−1·3	−1·0	−1·4	−1·9	−0·3	−1·0	−0·5	0	−0·1	+1·7	−0·5
	Karwar	−0·3	+0·6	−0·3	−1·4	−1·4	−1·3	+1·2	−1·3	+0·5	−0·3	+0·3	+1·8	−0·2
South India	Salem	+0·5	+0·8	+0·6	+2·1	+0·4	+0·2	+1·3	+0·8	+1·3	+1·1	+2·2	+2·7	+1·2
	Chitaldroog	−0·4	+0·6	−0·8	+0·4	+0·2	−1·1	+0·1	−0·8	−0·3	−0·4	+1·7	+1·8	+0·1
	Bangalore	−0·7	−0·4	−0·9	+1·1	0	+0·4	+1·6	+1·3	+1·4	−0·4	+0·8	+1·6	+0·5
	Hassan	−0·6	+0·3	−0·4	+0·9	+1·0	−0·5	+0·1	−0·6	+0·2	0	+1·1	+2·6	+0·3
	Mysore	−0·3	+2·5	+1·2	+2·7	+1·7	+0·5	+0·3	+0·8	+1·4	+1·3	+2·3	+2·8	+1·4
	Madras	−0·7	+0·1	−0·5	+0·6	−0·5	−0·9	−0·4	+0·2	0	−0·1	+0·5	+0·6	−0·1
	Bellary	+0·8	+1·2	−0·7	+0·2	−1·5	−2·1	−1·5	−0·5	−1·1	−0·2	+0·7	+1·8	−0·2
Hill Station, Baluchistan.	Quetta	−1·7	−1·1	0	+0·6	−0·2	+0·1	−0·9	−0·1	+0·1	+1·4	+0·3	+1·1	0
Hill Stations, Northern India.	Leh	−1·8	−2·5	+0·1	+0·8	−0·7	+0·5	0	−0·9	−0·6	+0·6	−0·6	−2·7	−0·7
	Srinagar	−4·6	−3·1	+0·1	+2·2	+0·2	−0·5	+0·3	−0·4	−0·6	+0·5	+1·1	−3·3	−0·7
	Kailang	−2·0	−1·8	+1·4	+1·3	−0·2	+0·1	+0·4	+0·1	+0·5	+1·2	+0·4	?	?
	Simla (Ridge)	−3·1	−2·4	+0·9	+0·5	−0·5	−0·9	+0·2	−1·8	+1·0	+1·9	+0·2	−1·9	−0·5
	Chakrata	−2·2	−2·1	+1·2	+0·6	+0·2	−0·5	0	−0·6	+0·8	+1·9	+0·7	−1·2	−0·1
	Ranikhet	−1·9	−3·0	+0·5	+0·6	−0·4	−2·1	+0·6	−0·7	+1·3	+0·9	−0·3	−1·6	−0·5
	Katmandu	−1·3	−1·9	−0·1	+0·8	+0·9	+0·5	+1·1	+0·2	+0·7	+1·3	−1·4	−1·7	−0·1
	Darjeeling	−1·4	−0·6	−0·8	+0·9	−0·5	−0·8	−0·9	−1·6	−0·8	+0·3	−0·3	−1·0	−0·6
Hill Stations, Central India.	Mount Abu	−1·1	−1·2	−0·7	+1·0	−0·4	−0·4	−1·4	−0·9	+0·5	+0·5	−1·1	+0·3	−0·4
	Pachmarhi	−0·1	+0·6	−1·2	+0·1	−0·6	−2·7	−0·5	−1·8	−0·1	+1·1	−0·4	+2·0	−0·3
	Chikalda	−0·8	+0·3	−2·2	−0·5	0	−1·8	−2·1	−1·9	−0·4	+1·2	−0·4	+1·5	−0·6
Hill Station, South India.	Wellington	−0·6	−0·3	+0·3	?	?	?	?	?	?	?	?	?	?
Extra India	Aden	−0·7	−0·4	−1·8	+0·4	?	+1·1	?	+1·8	+4·0?	+5·9?	−0·4	−1·0	?
	Perim	−1·6	−1·1	−1·5	+0·1	−1·4	−0·6	−2·1	−2·1	−2·0	−1·0	−1·5	−1·3	−1·3
	Zanzibar	+1·0	+1·5	+1·1	+1·6	+0·2	+0·6	+0·8	+1·3	+1·0	+1·7	+1·6	+3·3	+1·3
	Port Victoria (Seychelles)	0	−0·6	−1·1	−0·8	+0·6	−1·4	−0·2	+0·5	−0·2	+0·2	0	−0·7	−0·3

TABLE XXVIII.—*Geographical summary of the cloud data of Table II in the monthly weather reviews of 1902.*

METEOROLOGICAL AREA.	Number of stations.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
North-West Himalaya	5—6	−2·6	−2·5	+0·7	+1·0	−0·2	−0·6	+0·3	−0·7	+0·4	+1·2	+0·3	−2·1	−0·4
Sikim Himalaya and Nepal	2	−1·4	−1·3	−0·5	+0·9	+0·2	−0·2	+0·1	−0·7	−0·1	+0·8	−0·9	−1·4	−0·4
Punjab Plains	3	−2·3	−1·9	−0·3	+0·8	−0·7	−1·1	−1·1	−1·5	+0·1	+0·5	+0·5	−1·5	−0·7
Gangetic Plain	5	−1·5	−1·5	−0·1	+1·0	+0·3	−0·6	+0·4	−0·8	+0·8	+0·6	−0·1	−0·7	−0·2
Western Rajputana	4	−1·2	−1·6	−0·8	+0·5	−0·5	−0·4	−1·7	−1·4	−0·2	+0·4	−0·7	−0·5	−0·7
Eastern Rajputana and Central India	1	−0·3	−1·2	−0·5	+1·2	−0·5	−1·7	−0·4	−1·7	+1·1	+1·5	−0·5	−0·6	−0·3
Nerbudda Valley	1	+0·2	+1·2	−1·3	−0·3	−0·1	−1·5	−0·3	−1·1	+1·4	+1·6	+0·2	+2·6	+0·2
Chota Nagpur	1	−0·8	+0·3	−0·8	+2·2	+0·9	+0·6	+0·7	+0·8	+0·6	+0·3	−0·8	+0·7	+0·4
Lower Bengal	2	−0·6	+0·1	−0·4	+2·1	+0·4	+0·5	+0·8	0	+0·5	0	−0·8	+0·4	+0·3
Orissa	1	0	+0·4	−0·4	+1·8	+1·2	+0·2	+0·4	−0·2	+0·3	−0·2	+0·2	+0·6	+0·4
Central Provinces (South) and Berar	5	−0·3	+0·5	−1·8	−0·4	−0·4	−2·5	−0·6	−1·4	+0·1	+1·1	−0·4	+1·7	−0·4
Konkan	2	−0·6	+1·0	−0·8	−1·2	−1·4	−1·6	+0·5	−1·2	0	−0·2	+0·1	+1·8	−0·3
Deccan, Hyderabad and Mysore	8	−0·2	+0·9	−0·5	+0·6	+0·4	−0·6	+0·1	−0·2	+0·3	+0·3	+1·4	+2·3	+0·4
East Coast and Carnatic	2	−0·1	+0·5	+0·1	+1·4	−0·1	−0·4	+0·5	+0·5	+0·7	+0·5	+1·4	+1·7	+0·6
Arakan and Pegu	4	+0·2	+0·3	−0·4	+0·6	+0·2	−0·1	+0·4	−0·5	−0·2	−1·4	−1·3	−0·2	−0·2
Bay Islands	1—2	+1·1	+1·2	+0·2	−0·6	+0·5	−0·4	−1·1	+0·3	0	−1·2	+0·4	−0·2	0
Extra-Tropical India	25—26	−1·5	−1·4	−0·2	+1·0	−0·1	−0·5	−0·2	−0·8	+0·4	+0·7	−0·2	−0·8	−0·3
Tropical India	22—24	−0·1	+0·7	−0·6	+0·2	0	−1·0	0	−0·5	+0·1	+0·1	+0·3	+1·5	+0·1
Whole India	47—50	−0·8	−0·4	−0·4	+0·6	0	−0·7	−0·1	−0·7	+0·3	+0·4	+0·1	+0·3	−0·1

TABLE XXIX.—*Variations of the mean cloud amount from the normal in nine meteorological provinces of India in 1902.*

METEOROLOGICAL PROVINCE.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	YEAR.
Burma Coast and Bay Islands	+0·8	+0·7	−0·1	−0·1	+0·3	−0·3	−0·1	−0·4	−0·3	−1·5	−0·9	−0·1	−0·2
Bengal and Orissa	−0·6	+0·1	−0·5	+1·9	+0·6	+0·4	+0·7	−0·2	+0·5	−0·3	−0·7	+0·2	+0·2
Gangetic Plain and Chota Nagpur	−0·4	−0·3	−0·5	+1·4	+0·4	−0·3	+0·6	+0·3	+1·0	+0·4	−0·6	+0·3	+0·2
Upper Sub-Himalayas	−2·3	−2·3	−0·1	+0·9	−0·2	−0·8	−0·4	−1·5	+0·4	+0·5	+0·1	−1·3	−0·6
North-West Frontier Province, Indus Valley and North-West Rajputana.	−1·7	−1·5	−0·4	+0·5	−0·2	−0·2	−1·5	−1·3	−0·3	+0·9	+0·3	−1·1	−0·5
East Rajputana, Central India and Gujarat	−0·8	−1·4	−0·9	+0·7	−0·7	−1·6	−1·0	−1·6	+0·3	+0·4	−0·9	−0·5	−0·7
Deccan	−0·1	+0·9	−1·3	−0·4	+0·1	−1·6	0	−0·9	+0·4	+1·0	+0·5	+2·2	+0·1
West Coast	−0·6	+1·0	−0·8	−1·2	−1·4	−1·6	+0·5	−1·2	0	−0·2	+0·1	+1·8	−0·3
South India	−0·2	+0·7	−0·2	+1·3	+0·2	−0·5	+0·2	+0·2	+0·4	+0·2	+1·3	+2·0	+0·5

I. The cold weather period.—The cold weather season of 1902 was unusually dry and free from cold weather storms. There was hence less cloud than usual over the whole of Northern India and Upper Burma and more cloud than usual in Lower Burma and the greater part of the Peninsula. The deficiency was very marked in the month of January in the submontane and hill districts of the Punjab and Ladakh where it ranged between 1·8 and 4·6.

The following gives data for stations in this area of decreased cloud amount:—

Station.	Cloud.			
	Actual 8 A.M., January 1902.	Normal 8 A.M., January.	Variation of actual from normal 8 A.M., January 1902.	Variation of actual from normal 10 and 16 hrs., January 1902.
Leh	4·3	6·7	−2·4	−1·8
Srinagar	3·7	7·9	−4·2	−4·6
Murree	3·1	5·3	−2·2	
Ludhiana	1·4	4·5	−3·1	−2·9
Umballa	1·2	3·4	−2·2	
Simla	2·3	4·7	−2·4	−3·1
Delhi	1·2	3·6	−2·4	
Chakrata	1·5	4·1	−2·6	−2·2
Mussooree	1·0	3·9	−2·9	
Dehra Dun	1·3	4·7	−3·4	−2·8
Roorkee	0·6	3·0	−2·4	−2·4

The variations of the mean cloud amount of the month of January were small and irregular over the whole of the Peninsula, Central India and the greater part of North-Eastern India.

In February also there was less cloud than usual over the whole of Northern or Extra-Tropical India, the eastern districts of the Central Provinces and Upper Burma. The deficiency was largest in amount in the hill and submontane districts of Upper India, but was less marked than in January. The following gives variation data for stations at which it was greatest in actual amount:—

Station.	Cloud.			
	Actual 8 A.M., February 1902.	Normal 8 A.M., February.	Variation of actual from normal 8 A.M., February 1902.	Variation of actual from normal 10 and 16 hrs., February 1902.
Leh	4·3	6·0	−1·7	−2·5
Srinagar	3·7	7·6	−3·9	−3·1
Murree	3·1	4·8	−1·7	
Ludhiana	2·0	4·5	−2·5	−2·7
Umballa	1·5	3·4	−1·9	
Simla	3·2	4·5	−1·3	−2·4
Delhi	0·6	3·7	−3·1?	
Chakrata	2·4	3·6	−1·2	−2·1
Mussooree	2·4	3·7	−1·3	
Dehra Dun	2·3	3·8	−1·5	−2·3
Roorkee	1·4	3·3	−1·9	−2·3

Cloud was, on the other hand, in general excess in the Peninsula and Lower and Central Burma. This feature of increased cloud in the Peninsula was noteworthy, as practically no rain fell over that area, and the rainfall of the month was in general defect.

Skies were hence, on the mean of the period, less clouded than usual over the whole of Northern India and Upper Burma. There was, on the other hand, slightly more cloud than usual in Orissa, Gujarat and Central India. The following gives comparative data:—

Province or Division.	Variation of cloud amount from normal in			
	January, 8 A.M.	February, 8 A.M.	Period, January and February (8 A.M.).	Period, January and February (10 and 16 hours).
Upper Burma	−0·4	−0·3	−0·4	
Assam	−1·4	−1·0	−1·2	
Bengal	−0·6	−0·8	−0·7	−0·4
Orissa	+0·3	0	+0·3	+0·2
Bihar	−0·6	−0·8	−0·7	−0·8
Chota Nagpur	−0·8	−0·3	−0·6	−0·3
United Provinces of Agra and Oudh	−1·3	−1·2	−1·3	−1·8
Punjab	−2·2	−1·5	−1·9	−2·1
Sind	−1·0	−1·7	−1·4	−1·6
Rajputana	−1·2	−1·8	−1·5	−1·1
Gujarat	−0·1	+0·3	+0·1	
Central India	+0·4	+0·9	+0·7	

The cloud conditions were inverse in the two months over the southern half of the Peninsula, and hence on the mean of the period the amount of cloud was practically normal. The amount of cloud varied vary slightly from the normal in the northern half of that area and Lower Burma.

The following gives comparative data for these areas :—

Area.	Variation of cloud amount from normal in			
	January, 8 A.M.	February, 8 A.M.	Period, January and February (8A.M.)	Period, January and February (10 and 16 hours).
Lower Burma	+0·5	+0·7	+0·6	+1·1
West Coast	+0·1	+0·6	+0·4	+0.2
Berar	+0·8	+1·3	+1·1	+0·2
Central Provinces	+0·3	+0·3	+0·3	+0·6
Bombay Deccan	+0·7	+1·7	+1·2	+0·6
Mysore	−0·5	+0·8	+0·2	+0.2
Madras Coast	−0·4	+0·3	−0·1	−0·3
Madras Deccan	+0·4	+0·7	+0·6	+0·7
South India	−0·8	+0·9	+0·1	+0·7

II. The hot weather period.—The variations from the normal of the cloud amount during this period were somewhat irregular. In March cloud was locally in excess in the hill and submontane districts of the Punjab and United Provinces, where weather was somewhat more disturbed than usual. Over the remainder of India there was even less cloud than usual.

In April skies were more clouded than usual over the whole of Northern India, North Madras and Upper and Central Burma. Cloud was, on the other hand, below the normal over the Peninsula and Lower Burma. The excess was pronounced in Bengal, Assam, Chota Nagpur and Orissa, which received unusually frequent rain from series of thunderstorms.

The variations of the amount of cloud were small in May. Cloud was normal or in slight excess in Burma, North Eastern India and the eastern and southern districts of the Peninsula and in defect elsewhere. On the average of the whole period skies were throughout slightly less clouded than usual over the south of the Peninsula. The following gives data :—

Station.	Variation of 8 A. M. cloud amount from normal in			
	March.	April.	May.	Period, March to May.
Trichinopoly	−0·4	−2·0	−0 9	−1·1
Madras	−0·7	−0·2	−0·6	−0·5
Bangalore	−0·9	−0·5	−0·1	−0·5

There was, on the mean of the period, a moderate excess of cloud in North-Eastern India, North Madras, the United Provinces and the Punjab, chiefly due to unusually large amount of cloud in April. The cloud amount was normal in Burma, Assam, Chota Nagpur and Rajputana. The following gives comparative data :—

Area.	Variation of 8 A.M. cloud amount from normal in			
	March.	April.	May	Period, March to May.
Burma	−0·1	+0·2	0	0
Assam	−0.7	+1·3	−0·6	0
Bengal	−0·1	+1·5	−0·2	+0·4
Orissa	+0 2	+1·6	+0·5	+0·8
Bihar	−0·3	+0 9	+0·1	+0·2
Chota Nagpur	−0·9	+1·1	−0·3	0
United Provinces of Agra and Oudh.	+0·1	+1·3	+0·8	+0·7
North Madras	−0·7	+1·2	+0·3	+0·3
Punjab	0	+0·7	−0·2	+0·2
Rajputana	−0·3	+0·6	−0·2	0

Skies were throughout the whole period even more free from cloud than usual over the Peninsula, as shewn by the following data :—

Area.	Variation of 8 A.M. cloud amount from normal in			
	March.	April.	May.	Period, March to May.
Sind	−0·4	+0·3	−0·5	−0·2
Gujarat	−1·1	−0·2	−0·2	−0·5
Central Provinces	−1·3	−0·7	−0·2	−0·7
Berar	−1·5	−1·0	−0·3	−0·9
West Coast	−0·2	−1·0	−0·3	−0·5
Bombay Deccan	−1·0	−1·2	−0·5	−0·9
Mysore	−0·6	−0·7	−0·2	−0·5
Madras Coast	−0·8	+0·1	0	−0·2
Madras Deccan	−0·6	−0·7	−0·2	−0·5
South India	−0·1	−0·4	+0·3	−0·1

Skies were more clouded in April and on the mean of the period in the mountain and submontane districts of Upper

India. The following comparative data for eight stations illustrate this feature :—

Station.	Variation of 8 A.M. cloud amount from normal in			
	March.	April.	May.	Period, March to May.
Gilgit	+0·5	+2·1	0	+0·9
Leh	−0·5	+0·3	−0·8	−0·3
Srinagar	−0·2	+0·9	−0·3	+0·1
Murree	−0·2	+1·1	−0·7	+0·1
Simla	+1·7	+1·0	−0·2	+0·8
Chakrata	+1·3	+1·5	+0·4	+1·1
Cherat	−1·2	+0·4	−0·4	−0·4
Quetta	0	+1·1	−0·5	+0·2

III. The south-west monsoon period.—The cloud data show in the clearest manner the most characteristic differences between the strength and rain-giving capacity of the two monsoon currents. The Bombay current was weak and irregular and the accompanying rainfall largely in defect from the beginning of June to the 18th or 19th of August, when it increased considerably and gave good to abundant rain over the greater part of its field of extension. There was less cloud than usual over practically the whole area of the Bombay current in June, July and August and about the normal amount in September. The area of greatest deficiency of cloud in June included the Central Provinces, Berar and the south-eastern districts of the United Provinces, where the deficiency ranged between 2·0 and 4·2.

The following gives comparative data for stations in that area :—

Station.	Variation of 8 A.M. cloud amount from normal in				
	June.	July.	August.	September.	Period, June to September.
Allahabad	−4·0	+0·6	−1·3	+1·8	−0·7
Benares	−2·6	+0·6	−0·4	+0·9	−0·4
Jubbulpore	−4·2	−0·4	−3·2	−0·7	−2·1
Khandwa	−3·2	0	−2·9	+1·2	−1·2
Nagpur	−3·3	−0·2	−1·9	+0·3	−1·3
Chanda	−3·7	−0·7	−2·2	+1·2	−1·4
Akola	−3·0	+0·7	−2·2	+1·1	−0·9
Raipur	−2·6	−1·1	−3·5	−2·6?	−2·5
Sambalpur	−5·2?	−0·9	−1·8	+0·5	−1·9

The area of greatest deficiency of cloud was transferred to Gujarat, Rajputana and Sind in July and to the Central Provinces and Berar in August, as is shown by the following data :—

Station.	Variation of 8 A.M. cloud amount from normal in				
	June.	July.	August.	September.	Period, June to September.
Hyderabad	−0·9	−3·9	−2·3	+0·5	−1·7
Bikaner	−0·4	−2·6	−2·1	+0·4	−1·2
Deesa	−1·8	−2·3	−1·5	+0·5	−1·3
Pachpadra	−3·4?	−7·3?	−5·9?	−0·5	−4·3?
Jubbulpore	−4·2	−0·4	−3·2	−0·7	−2·1
Nagpur	−3·3	−0·2	−1·9	+0·3	−1·3
Raipur	−2·6	−1·1	−3·5	−2·6	−2·5
Akola	−3·0	+0·7	−2·2	+1·1	−0·9

The amount of cloud was, on the mean of the period, less than usual over the area dominated by the Bombay current.

The following gives comparative data for the usual area of the prevalence of the Bombay current :—

Area.	Variation of 8 A.M. cloud amount from normal in				
	June.	July.	August.	September.	Period, June to September.
Punjab	−0·7	−0·4	−1·4	+0·7	−0·5
Sind	−0·2	−2·1	−1·1	−0·2	−0·9
Rajputana	−1·4	−1·1	−1·6	+0·9	−0·8
Gujarat	−1·3	−0·8	−1·3	+0·3	−0·8
Central India	−1·4	−0·2	−0·5	+1·0	−0·3
Central Provinces	−3·1	−0·3	−2·5	+0·1	−1·5
Berar	−3·0	+0·4	−2·1	+0·8	−1·0
West Coast	−0·3	+0·6	−0·5	+0·3	0
Bombay Deccan	−1·0	+0·1	−1·3	+0·1	−0·5
Mysore	−0·7	+0·4	−0·3	+0·1	−0·1
Madras Coast	−0·5	+0·1	0	−0·1	−0·1
Madras Deccan	−1·5	−1·0	−1·4	−0·9	−1·2
South India	−1·1	−0·3	−1·0	−0·4	−0·7

The deficiency was hence greatest in the Central Provinces and Madras Deccan.

There was also a slight deficiency of cloud in Burma, North-Eastern India and the United Provinces, that is over practically the whole field of the Bay current. The varia-

tions were small and changed slightly from month to month. The following gives comparative data :—

Area.	Variation of 8 A.M. cloud amount from normal in				
	June.	July.	August.	September	Period, June to September.
Burma	−0·8	−0·1	−0·6	−0·1	−0·4
Assam	+0·5	−0·4	−0·7	+0·1	−0·1
Bengal	+0·1	+0·1	−0·6	+0·4	0
Orissa	−0·2	+0·4	−0·5	−0·3	−0·2
Bihar	−1·5	−0·4	−0·4	+1·2	−0·3
Chota Nagpur	−0·8	+0·1	−0·4	+0·8	−0·1
United Provinces of Agra and Oudh.	−1·8	+0·1	−1·2	+1·6	−0·3

IV. The retreating south-west monsoon period.—The chief features of the meteorology of this period were (1) the early withdrawal of the humid monsoon currents from North-Eastern India and Burma, (2) the heavy and abundant rainfall over the greater part of the Peninsula due to the unusually steady determination of the monsoon current from the middle of October to December to the west and south-west coasts of the Bay, (3) the occurrence of three storms in the Arabian Sea in October and December which gave much cloud and rain in the west coast districts and the Deccan, (4) the frequent passage of shallow cold weather depressions in October and November across Baluchistan into Upper India giving cloud but little or no rain, followed by finer and drier weather than usual in December. The cloud distribution of the period was in strict accordance with these features.

Cloud was steadily in defect over North-Eastern India and Burma in October and November. It was in slight excess in Bengal in December and, on the mean of the whole period, was practically normal except in Burma, where it was in slight defect. The following table gives comparative data :—

Area.	Variation of 8 A.M. cloud amount from normal in			
	October.	November.	December.	Period, October to December.
Burma	−1·2	−1·5	−0·7	−1·1
Assam	+0·7	−0·8	−0·8	−0·3
Bengal	−0·1	−0·5	+0·9	+0·1
Orissa	−1·0	−0·2	+1·3	0
Bihar	+0·1	−0·4	+0·5	+0·1
Chota Nagpur	−0·3	−0·6	+1·0	0
United Provinces of Agra and Oudh.	+0·4	−0·5	−0·6	−0·2

It was, on the other hand, more or less largely above the normal in the Peninsula and Central Provinces. The following gives comparative data for twelve stations :—

Station.	Variation of 8 A.M. cloud amount from normal in			
	October.	November.	December.	Period, October to December.
Khandwa	+1·0	+0·8	+2·8	+1·5
Amraoti	+2·1	+0·7	+2·4	+1·7
Sholapur	+0·6	+2·7	+4·0	+2·4
Marmugao	+2·0	+2·0	+2·7	+2·2
Mangalore	−0·2	+2·2	+2·2	+1·4
Calicut	+0·6	+2·4	+2·6	+1·9
Cochin	+0·1	+1·2	+1·8	+1·0
Bangalore	−0·5	+2·6	+2·7	+1·6
Belgaum	+1·6	+2·0	+3·2	+2·3
Hassan	−0·4	+1·9	+3·6	+1·7
Trichinopoly	−0·2	+1·6	+0·7	+0·7
Tinnevelly	−0·3	+2·4	+1·4	+1·2

Cloud was in slight excess during the period in Gujarat and Kathiawar and in slight defect in South-West Rajputana, the area where the rains due to the Bombay current had been most scanty in June and July. The following gives data :—

Area.	Variation of 8 A.M. cloud amount from normal in			
	October.	November.	December.	Period, October to December.
Gujarat	+0·4	−0·7	+0·6	+0·1
Kathiawar	+0·5	−0·4	+0·5	+0·2
South-West Rajputana	+0·2	−0·7	−0·3	−0·4

Cloud was in slight to moderate excess in Upper India, Baluchistan and the Western Himalayas, *i.e.*, in the area affected by the feeble cold weather depressions in October and November, but was in general slight to moderate defect in the same areas in

December. The following gives comparative data for eleven stations in these areas :—

Station.	Variation of 8 A.M. cloud amount from normal in			
	October.	November.	December.	Period, October to December.
Quetta	+1·2	−0·1	−1·5	−0·1
Srinagar	+0·5	+1·4	−4·1	−0·7
Murree	+1·0	−1·2	−2·2	−0·8
Leh	+1·1	−0·5	−3·4	−0·9
Peshawar	+1·2	−0·4	−1·3	−0·2
Lahore	+0·2	+0·2	−1·3	−0·3
Mooltan	+0·9	+0·2	−1·5	−0·1
Bikaner	+0·9	+0·2	−1·5	−0·1
Simla	+1·1	−0·2	−1·4	−0·2
Dehra Dun	+0·8	−0·6	−1·8	−0·5
Roorkee	+0·7	−0·3	−1·2	−0·3

The following gives comparative data of the period for the chief meteorological divisions :—

Province or Division.	Variation of 8 A.M. cloud amount from normal in			
	October.	November.	December.	Period, October to December.
Burma	−1·2	+1·5	−0·7	−1·1
Assam	+0·7	−0·6	−0·8	−0·3
Bengal	−0·1	−0·5	+0·9	+0·1
Orissa	−1·0	−0·2	+1·3	0
Bihar	+0·1	−0·4	+0·5	+0·1
Chota Nagpur	−0·3	−0·6	+1·0	0
United Provinces of Agra and Oudh.	+0·4	−0·5	−0·6	−0·2
Punjab	+0·8	0	−1·6	−0·3
Sind	+1·2	−0·5	−1·2	−0·2
Rajputana	+1·1	−0·4	−0·7	0
Gujarat	+0·3	−0·6	+0·3	0
Central India	+1·0	−0·2	+1·7	+0·8
Central Provinces	+0·5	0	+1·7	+0·7
Berar	+1·9	+0·7	+2·3	+1·6
West Coast	+0·8	+1·6	+2·4	+1·6
Bombay Deccan	+1·7	+1·9	+3·5	+2·4
Mysore	−0·4	+2·3	+2·9	+1·6
Madras Coast	−0·4	+0·5	+1·3	+0·5
Madras Deccan	−0·4	+1·0	+2·3	+1·0
South India	0	+1·6	+1·5	+1·0

The year.—The mean cloud amount was on the average of the year in very slight defect (−0·1) over the whole Indian area. This defect on the average for India was entirely due to a deficiency (−0·3) of cloud in Extra-Tropical India, the cloud proportion in Tropical India being in very slight excess (+0·1).

The deficiency was most marked in Western Rajputana (−0·7), the Punjab (−0·7), the Central Provinces (South), Berar and the Himalayan area (each −0·4). Cloud was, on the other hand, in moderate excess in the East Coast (+0·6), the Deccan, Orissa and Chota Nagpur (each +0·4).

The following gives data for Extra-Tropical and Tropical India and for the whole of India for the four periods into which the year is divided and for the year :—

Area.	Variation of mean cloud amount from normal in				
	Period, I.	Period, II.	Period, III.	Period, IV.	Whole year.
Extra-Tropical India	−1·5	+0·2	−0·3	−0·1	−0·3
Tropical India	+0·3	−0·1	−0·4	+0·6	+0·1
Whole India	−0·6	+0·1	−0·3	+0·3	−0·1

The following gives the variation of the mean amount of cloud in the Indian area, year by year, for the period 1875—1902 :—

Year.	Amount of variation.	Year.	Amount of variation.
1875	0	1889	+0·1
1876	−0·2	1890	+0·2
1877	+0·3	1891	+0·1
1878	+0·1	1892	+0·1
1879	−0·1	1893	+0·5
1880	−0·1	1894	+0·5
1881	−0·1	1895	+0·1
1882	0	1896	−0·2
1883	+0·1	1897	0
1884	−0·1	1898	−0·2
1885	+0·2	1899	−0·3
1886	+0·2	1900	+0·2
1887	−0·1	1901	+0·1
1888	−0·2	1902	−0·1

Rainfall.

The rainfall data of India are now issued in a separate volume. The twelfth volume, that of 1902, contains the rainfall data of 2,400 stations, which are classified under their respective administrative divisions according to the following scheme:—

Province.	Number of stations.
Burma	152
Assam	117
Bengal, Bihar, Chota Nagpur and Orissa	363
United Provinces of Agra and Oudh	277
Punjab	189
North-West Frontier Province	30
Bombay	281
Madras	394
Coorg	10
Central Provinces	86
Berar	44
Mysore	77
Baluchistan	54
Kashmir	41
Rajputana	139
Central India	70
Hyderabad (Deccan)	23
Travancore	39
Cochin	3
Pudukota	11

The volume contains the whole of the available information for the year 1902 of this important element of meteorological observation.

The information includes monthly statements of—

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

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

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

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

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

(*f*) the accumulated rainfall (up to the date of each statement) throughout each of the seasons into which the year is divided.

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

Table XXX gives the normal monthly rainfall at 549 stations determined from the whole of the available data down to December 1900. The stations for which the means are given were selected by Mr. Blanford, and the last series of means were given in the Annual Summary for 1896. The means in Table XXX are hence based on four years' additional data.

Table XXXI gives the variations of the monthly and annual rainfall in 1902 of 547 stations in India, Baluchistan and Burma.

The four tables (Tables XXXII to XXXV) gives summaries of the rainfall data of the year. In the first two tables (Tables XXXII and XXXIII) the summaries are drawn up in the form that was used for many years in the Annual Reports issued by the Department and are based on the rainfall returns of 549 stations. In the two succeeding tables (Tables XXXIV and XXXV) the actual average rainfall data (derived from the returns of 2,409 rain-gauge stations in India) are given for the 57 meteorological districts into which the Empire is divided for the comparison of crops and rainfall for the four periods into which the year may be arranged. The four periods are as follows:—

1st.—From January 1st to February 28th, which forms the period of the cold-weather rains of Upper India.

2nd.—From March 1st to May 31st, which includes the hot season, when rain occurs mainly in the coast districts, and in Assam during thunderstorms.

3rd.—From June 1st to October 31st, which forms the period of the south-west monsoon rains proper.

4th.—From November 1st to December 31st, which includes the period of the so-called north-east monsoon rains of Southern India, more especially of the Coromandel Coast districts.

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inch.	Inches.	Inches.
Baluchistan.	Kalat	1·76	2·24	1·44	0·48	0·26	0·17	0·49	0·45	0·04	0·05	0·34	0·83	8·55
	Pishin	2·50	2·30	1·69	0·95	0·23	0·03	0·16	0·16	0·01	0·05	0·67	1·34	10·09
	Chaman	1·54	2·05	1·41	0·60	0·08	0·09	0·11	0	0	0·04	0·61	1·15	7·68

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inch.	Inches.	Inches.	Inches.	Inch.	Inch.	Inches.	Inches.	Inches.
Baluchistan—*contd.*	Quetta (Hospital)	1·90	2·11	1·80	1·05	0·43	0·18	0·47	0·51	0·11	0·08	0·38	0·97	9·99
	Mach	1·24	1·75	0·81	0·33	0·06	0·56	0·99	1·15	0·03	0·34	0·23	0·70	8·19
	Beleli	1·86	2·39	1·27	0·95	0·29	0·14	0·09	0·40	0·03	0·06	0·86	1·59	9·93
	Kuchelak	2·20	2·29	1·59	0·77	0·28	0·08	0·13	0·16	0·12	0·10	0·81	1·61	10·14
	Fort Sandeman	0·70	1·21	1·61	0·92	0·47	1·08	2·70	1·13	0·06	0·05	0·31	0·38	10·62
	Bostan	2·20	2·62	1·61	0·61	0·13	0·18	0·30	0·16	0·03	0·09	0·68	1·83	10·44
	Yarookarez	1·59	2·01	1·20	0·65	0·07	0·04	0·01	0·15	0	0·05	0·48	1·69	7·94
	Syad Hamed	1·93	2·46	1·34	0·60	0·03	0·01	0	0	0	0·07	0·92	1·03	8·39
	Gulistan	1·81	2·25	1·60	0·63	0·14	0·04	0·03	0	0·04	0·06	0·85	1·13	8·58
	Killa Abdulla	1·80	2·74	1·82	1·03	0·13	0·03	0·08	0·02	0·02	0·10	1·28	1·24	10·29
	Khanai	2·27	2·39	1·61	1·08	0·04	0·18	0·17	0·13	0	0·07	0·64	1·14	9·72
	Fuller's Camp	2·15	2·77	2·10	1·39	0·41	0·14	0·41	0·11	0·06	0·10	0·88	1·17	11·69
	Kachh	2·14	3·15	2·16	0·97	0·35	0·26	0·30	0·15	0·11	0·07	0·72	1·85	12·23
	Mudgorge	1·90	1·98	1·87	0·68	0·32	0·22	0·42	0·28	0·05	0·09	0·99	0·94	9·74
	Mangi	1·07	1·59	1·65	0·58	0·24	0·64	0·34	0·25	0·12	0·06	0·81	1·17	8·52
	Dirgi	1·28	1·47	1·49	0·59	0·32	0·38	0·53	0·28	0·30	0·05	0·66	1·13	8·48
	Khost	1·51	1·79	1·27	0·31	0·24	0·43	1·16	0·65	0·20	0·06	0·96	0·95	9·53
	Shahrig	1·83	1·88	1·29	0·27	0·31	0·68	2·24	1·98	0·63	0·06	0·76	0·76	12·69
	Nasak	1·10	1·89	1·16	0·28	0·25	1·12	1·81	2·88	0·33	0·08	0·71	1·01	12·62
	Harnai	1·10	1·81	1·03	0·46	0·17	1·10	2·26	3·04	0·60	0·07	0·52	0·98	13·14
	Sunari	0·91	1·32	0·88	0·32	0·18	0·88	2·90	3·24	0·69	0·08	0·50	0·77	12·67
	Spintangi	0·61	1·30	0·61	0·25	0·19	0·72	2·04	2·68	0·24	0	0·33	0·74	9·71
	Mushkaf	0·13	0·27	0·27	0·03	0·05	0·17	1·08	1·15	0·10	0	0·07	0·51	3·83
	Baber Kach	0·53	0·81	0·38	0·16	0·12	0·31	1·50	1·60	0·31	0·03	0·27	0·59	6·61
	Loralai (Hospital)	0·23	0·61	1·38	0·48	0·68	0·33	1·45	1·18	0·22	0·03	0·30	0·47	7·36
	Nari	0·48	0·62	0·30	0·08	0·06	0·25	1·51	1·19	0·23	0·01	0·17	0·51	5·41
	Sibi Hospital	0·58	0·38	0·29	0·11	0·06	0·22	1·27	1·33	0·20	0	0·17	0·61	5·22
	Kolepur	1·60	1·71	1·53	0·54	0·17	0·09	1·00	0·49	0·08	0·03	0·31	1·39	8·94
	Hirok	2·14	2·35	0·95	0·52	0·10	0·36	1·13	0·94	0·21	0·07	0·97	1·29	11·03
	Mittri	0·41	0·30	0·22	0·29	0·01	0·22	1·25	0·73	0·06	0·01	0·15	0·43	4·08
	Lindsay	0·30	0·32	0·17	0·07	0·13	0·16	0·89	0·86	0·22	0	0·12	0·39	3·63
	Bellput	0·28	0·16	0·13	0·07	0·03	0·17	0·98	1·01	0·08	0	0·15	0·27	3·33
	Nuttal	0·35	0·37	0·14	0·10	0·22	0·09	1·07	0·86	0·15	0	0·35	0·40	4·10
	Temple Dera	0·37	0·29	0·10	0·07	0·08	0·18	0·97	1·00	0·04	0	0·18	0·28	3·56
	Jhatput	0·22	0·30	0·07	0·03	0·14	0·17	0·63	0·85	0·08	0	0·18	0·24	2·91
	Sangal	1·98	2·49	1·92	0·71	0·10	0·01	0·13	0·03	0	0·08	0·51	1·53	9·49

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Baluchistan—*concld.*	Shalabagh	2·77	3·37	2·76	0·72	0·09	0·02	0·40	0·02	0	0·10	0·57	1·71	12·53
	Panir	0·53	0·53	0·61	0·03	0·06	0·08	0·61	0·65	0·03	0·01	0·09	0·58	3·81
Punjab and North-West Frontier Province.	Abbottabad	3·45	3·93	4·20	3·39	2·78	3·18	8·94	9·06	3·59	1·17	0·93	1·92	46·52
	Cherat	2·26	3·31	3·57	2·54	1·49	0·66	4·54	3·64	1·86	0·10	0·12	1·10	25·10
	Murree (Obsy.)	3·73	4·14	3·96	3·62	2·99	3·41	12·51	13·40	5·64	1·86	1·27	1·37	57·90
	Poo	2·56	2·94	3·37	1·91	1·12	0·26	0·77	0·59	0·39	0·49	0·43	1·19	16·00
	Dharamsala	4·89	4·88	3·67	1·95	2·58	11·04	40·81	39·19	12·44	1·32	0·35	2·57	125·69
	Kailang	2·92	3·00	3·48	3·33	2·69	1·36	1·37	1·58	1·63	0·46	0·51	1·21	23·45
	Kilba	4·83	5·29	5·52	4·01	3·19	1·87	4·15	3·56	3·12	1·04	1·58	1·75	39·80
	Simla (Obsy.)	3·24	3·07	2·48	2·32	3·71	7·84	18·42	17·87	6·17	1·19	0·41	1·28	67·97
	Peshawar (Obsy.)	1·54	1·31	1·88	1·77	0·67	0·27	1·67	2·17	0·69	0·18	0·58	0·55	13·26
	Kohat	1·35	1·30	2·01	1·56	1·29	1·01	3·72	3·07	1·45	0·48	0·63	0·49	18·36
	Bannu	0·85	0·86	1·51	1·25	0·71	0·90	2·63	2·60	0·72	0·13	0·28	0·32	12·74
	Dera Ismail Khan	0·44	0·80	0·87	0·67	0·38	0·65	1·92	1·51	0·48	0·10	0·25	0·31	8·28
	Dera Ghazi Khan	0·41	0·45	0·56	0·32	0·45	0·47	1·63	1·23	0·45	0·05	0·11	0·26	6·39
	Muzaffargarh	0·33	0·35	0·35	0·33	0·34	0·35	1·36	1·42	0·52	0·08	0·08	0·27	5·78
	Mooltan (Obsy.)	0·39	0·36	0·42	0·27	0·39	0·43	2·19	1·66	0·62	0·07	0·06	0·27	7·11
	Jhang	0·51	0·45	0·71	0·36	0·49	1·03	3·32	2·18	0·64	0·14	0·06	0·34	10·23
	Montgomery	0·53	0·60	0·42	0·21	0·39	1·12	2·86	2·32	0·94	0·13	0·05	0·27	9·84
	Shahpur	0·82	0·95	0·95	0·62	0·68	1·18	3·76	3·07	1·59	0·15	0·22	0·38	14·28
	Rawalpindi	2·50	2·10	2·09	2·05	1·42	1·79	8·24	7·71	3·18	0·53	0·64	1·11	33·36
	Jhelum	1·96	1·38	1·56	1·00	0·87	2·09	7·39	6·39	2·34	0·45	0·24	0·80	26·38
	Gujrat	1·99	1·52	1·76	1·02	0·74	2·38	7·86	6·94	2·42	0·42	0·22	0·67	27·84
	Sialkot (Obsy.)	1·94	1·85	1·58	1·27	1·05	2·98	10·30	9·74	2·99	0·49	0·26	0·77	35·22
	Gujranwala	1·44	1·41	1·17	0·70	0·77	1·86	7·35	6·11	2·14	0·44	0·20	0·62	24·18
	Gurdaspur	2·18	1·87	1·41	0·57	0·79	4·16	9·90	8·71	3·63	0·49	0·14	1·09	34·94
	Lahore	0·82	1·13	0·89	0·51	0·80	1·86	6·65	4·88	2·10	0·43	0·11	0·47	20·70
	Amritsar	1·28	1·18	0·82	0·55	0·80	2·27	7·78	6·53	2·52	0·40	0·18	0·62	24·92
	Ferozepur	1·14	0·86	0·66	0·51	0·57	2·28	6·32	4·86	2·41	0·51	0·05	0·47	20·61
	Jullundur	1·52	1·25	1·08	0·58	0·73	2·81	7·75	7·30	3·44	0·38	0·09	0·71	27·64
	Hoshiarpur	1·92	1·78	1·27	0·61	0·87	3·60	10·26	9·48	4·47	0·33	0·13	1·22	35·92
	Ludhiana	1·40	1·11	1·14	0·65	0·85	2·56	8·61	6·59	3·70	0·81	0·06	0·73	28·25
	Umballa	1·53	1·58	0·86	0·35	0·86	4·09	11·01	8·74	4·50	0·44	0·24	0·67	35·07
	Sirsa	0·73	0·35	0·41	0·34	0·64	2·07	3·70	3·64	1·95	0·24	0·02	0·34	14·43
	Hissar	0·66	0·42	0·50	0·22	0·66	1·87	4·63	4·25	2·02	0·27	0·07	0·43	16·01
	Rohtak	0·82	0·56	0·54	0·24	0·72	2·68	5·91	5·66	3·21	0·34	0·03	0·51	21·22

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inch.	Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inch.	Inch.	Inch.	Inches.
Punjab and North-West Frontier Province—*concld.*	Delhi (Obsy.)	1·02	0·61	0·67	0·35	0·71	3·18	8·38	7·44	4·42	0·39	0·10	0·43	27·70
	Gurgaon	0·88	0·41	0·49	0·16	0·68	2·75	8·39	7·10	4·32	0·34	0·04	0·34	25·90
	Karnal	1·28	1·16	0·73	0·41	0·97	4·11	9·40	6·90	4·60	0·37	0·12	0·50	30·55
Sind.	Kurrachee	0·66	0·30	0·16	0·13	0·03	0·47	3·06	1·73	0·64	0·04	0·16	0·19	7·37
	Sehwan	0·39	0·28	0·18	0·16	0·16	0·28	1·73	2·38	0·55	0·03	0·12	0·14	6·40
	Tatta	0·30	0·21	0·11	0·28	0·01	0·88	3·67	1·79	0·72	0	0·19	0·09	8·25
	Hyderabad (Obsy.)	0·25	0·20	0·13	0·16	0·12	0·43	2·62	3·08	0·52	0	0·10	0·05	7·66
	Umarkot	0·18	0·08	0·11	0·08	0·10	0·78	3·34	3·36	1·00	0·14	0·05	0·03	9·25
	Shikarpur	0·32	0·32	0·35	0·19	0·09	0·10	1·00	1·55	0·18	0	0·12	0·18	4·40
	Rohri	0·32	0·43	0·34	0·26	0·15	0·22	1·08	1·31	0·24	0·01	0·11	0·19	4·66
	Jacobabad	0·26	0·27	0·25	0·17	0·15	0·10	1·21	1·25	0·19	0·01	0·12	0·15	4·13
Cutch.	Bhuj	0·06	0·11	0·07	0·09	0·13	2·06	5·88	3·31	1·86	0·64	0·08	0·06	14·35
	Rhahpur	0·06	0·08	0·05	0·08	0·15	1·48	7·58	3·78	2·92	0·46	0·16	0·04	16·84
	Nagar	0·14	0·09	0·04	0·04	0·40	1·87	5·81	5·28	1·96	0·24	0·05	0·03	15·95
Rajputana.	Jaisalmer	0·27	0·15	0·10	0·12	0·21	0·79	2·28	2·19	0·60	0	0·04	0·09	6·84
	Phalodi	0·17	0·16	0·09	0·02	0·27	0·83	3·40	2·48	0·65	0	0	0·14	8·21
	Bikaner	0·38	0·24	0·18	0·14	0·84	1·65	3·29	3·14	1·08	0·09	0·06	0·18	11·27
	Nagar	0·32	0·14	0·15	0·08	0·57	1·97	4·01	3·60	1·99	0·05	0·07	0·29	13·24
	Didwana	0·41	0·16	0·25	0·06	0·49	1·33	4·97	5·42	1·82	0·13	0·13	0·29	15·46
	Jhunjhunu	0·73	0·22	0·23	0·10	0·51	2·56	5·78	5·08	2·09	0·14	0·07	0·29	17·80
	Khetri	0·73	0·55	0·38	0·15	0·48	2·08	7·56	7·02	2·51	0·22	0·15	0·35	22·18
	Sikar	0·49	0·19	0·21	0·10	0·67	2·36	5·81	5·76	1·78	0·20	0·10	0·30	17·97
	Sri-Madhopur	0·51	0·50	0·23	0·15	0·63	2·37	8·31	6·98	2·34	0·05	0·18	0·49	22·74
	Alwar	0·55	0·42	0·29	0·11	0·90	3·43	9·35	9·10	4·80	0·72	0·17	0·44	30·28
	Bharatpur	0·42	0·24	0·23	0·12	0·61	2·49	8·82	8·19	4·32	0·35	0·05	0·29	26·13
	Bandikui	0·40	0·19	0·30	0·09	0·34	1·91	5·92	7·73	3·45	0·09	0·16	0·40	20·98
	Jaipur	0·43	0·19	0·31	0·16	0·64	2·96	8·90	7·44	3·23	0·21	0·16	0·35	24·98
	Sambhar	0·30	0·17	0·22	0·14	0·91	1·60	6·80	6·16	3·29	0·29	0·22	0·40	20·50
	Karauli	0·31	0·20	0·15	0·09	0·62	3·85	9·40	9·52	4·44	0·12	0·09	0·34	29·13
	Lalsot	0·32	0·09	0·13	0·06	0·25	2·98	8·67	9·51	3·04	0·15	0·10	0·21	25·51
	Tonk	0·19	0·27	0·18	0·08	0·37	2·83	9·04	9·10	3·10	0·47	0·07	0·24	25·94
	Siwai Madhopur	0·29	0·22	0·20	0·10	0·29	4·19	12·16	11·15	3·84	0·12	0·10	0·18	32·84
	Deoli	0·24	0·20	0·14	0·16	0·83	3·83	10·47	9·73	4·55	0·39	0·18	0·19	30·85
	Kotah	0·25	0·21	0·09	0·13	0·78	3·94	9·59	9·59	4·40	0·32	0·15	0·31	29·76
	Jhalrapatan	0·21	0·28	0·13	0·05	0·43	5·38	14·06	10·21	5·70	0·51	0·23	0·47	37·66
	Ajmer	0·31	0·28	0·31	0·13	0·59	2·41	6·82	7·37	3·09	0·29	0·22	0·29	22·09

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inches.	Inches.
Rajputana—*concld.*	Nasirabad	0·17	0·31	0·11	0·07	0·54	1·97	6·86	6·03	2·81	0·22	0·18	0·31	19·58
	Malpura	0·33	0·05	0·24	0·05	0·19	1·31	6·59	7·93	2·68	0·02	0·02	0·26	19·67
	Beawar	0·22	0·11	0·16	0·12	0·38	2·30	7·01	5·97	2·85	0·17	0·18	0·25	19·72
	Jodhpur	0·24	0·16	0·03	0·06	0·45	1·36	3·75	4·90	2·18	0·19	0·10	0·14	13·56
Central India.	Pachpadra	0·34	0·07	0·10	0·05	0·67	1·44	4·28	3·46	2·13	0·06	0·09	0·12	12·81
	Jasol	0·18	0·06	0·08	0·05	0·52	1·55	3·83	3·20	1·41	0·01	0·18	0·08	11·15
	Barmer	0·15	0·09	0·07	0·06	0·43	1·54	3·20	2·85	1·71	0·03	0·11	0·05	10·29
	Pali	0·12	0·02	0·09	0·04	0·32	2·17	4·21	4·80	2·06	0·08	0·25	0·10	14·26
	Shahpura	0·12	0·16	0·15	0·17	0·67	3·45	7·29	7·56	4·47	0·42	0·10	0·24	24·80
	Erinpura	0·17	0·21	0·10	0·05	0·42	2·15	5·59	5·06	2·98	0·34	0·19	0·16	17·42
	Sirohi	0·15	0·14	0·08	0·15	0·75	3·39	7·56	5·78	3·61	0·07	0·22	0·13	22·03
	Mount Abu	0·27	0·31	0·15	0·08	0·97	5·59	22·05	21·51	9·58	1·46	0·28	0·24	62·49
	Kotra	0·11	0·21	0·03	0·04	0·65	3·78	11·71	9·97	5·91	0·54	0·18	0·15	33·28
	Udaipur	0·09	0·15	0·07	0·11	0·57	3·58	7·39	7·42	5·70	0·37	0·18	0·17	25·80
	Pratabgarh	0·18	0·10	0·02	0·03	0·51	5·72	11·27	11·16	5·28	0·64	0·25	0·26	35·42
	Kherwara	0·09	0·16	0·05	0·02	0·39	4·68	8·84	7·99	4·59	0·49	0·15	0·11	27·56
	Banswara	0·26	0·15	0·01	0·01	0·31	6·19	11·30	12·19	7·83	0·67	0·22	0·36	39·50
	Neemuch (Obsy.)	0·16	0·12	0·08	0·10	0·36	3·74	8·06	8·26	4·44	0·53	0·14	0·23	26·22
	Sirdarpore	0·16	0·18	0·02	0·02	0·25	5·21	9·69	6·79	7·16	1·00	0·20	0·14	30·82
	Agar	0·25	0·29	0·03	0·06	0·44	5·44	10·66	10·77	7·44	0·61	0·17	0·38	36·54
	Rutlam	0·17	0·18	0·02	0·03	0·38	5·22	10·83	10·35	7·65	0·87	0·24	0·24	36·18
	Indore	0·25	0·24	0·05	0·17	0·47	6·33	9·76	7·75	7·46	1·09	0·24	0·18	33·99
	Bhopal (Sehore)	0·45	0·22	0·14	0·05	0·31	7·31	16·43	13·08	8·71	1·15	0·38	0·43	48·66
	Goona	0·49	0·25	0·18	0·12	0·40	6·72	11·59	13·24	5·69	0·43	0·34	0·32	39·77
	Morar	0·44	0·38	0·15	0·10	0·38	3·11	9·85	10·58	5·51	0·42	0·04	0·36	31·32
	Nowgong	0·64	0·42	0·21	0·10	0·31	6·93	14·60	13·07	6·38	1·04	0·18	0·48	44·36
	Sutna	0·90	0·67	0·38	0·09	0·36	6·51	15·06	12·08	5·99	2·06	0·26	0·41	44·77
	Nagode	0·86	0·46	0·29	0·14	0·42	5·93	15·87	12·76	6·96	1·98	0·17	0·47	46·31
	Maihar	0·72	0·59	0·28	0·11	0·47	7·13	14·44	13·77	6·51	1·99	0·44	0·50	46·95
	Rewah	0·82	0·80	0·26	0·24	0·40	8·56	15·87	14·67	9·18	2·22	0·29	0·38	53·69
	Ramnagar	0·89	0·62	0·27	0·05	0·32	8·36	14·67	14·50	6·51	2·08	0·30	0·49	49·06
	Sihawal (Bardi)	0·92	0·45	0·60	0·08	0·34	5·49	13·63	14·39	7·51	1·97	0·48	0·49	46·35
	Tyonthar	0·90	0·55	0·31	0·08	0·38	6·12	12·77	12·33	7·08	2·20	0·17	0·49	43·38
	Sohagpur	1·38	0·80	0·45	0·39	0·34	7·38	14·98	13·09	8·59	2·25	0·76	0·46	50·87
United Provinces.	Chakrata	3·21	3·58	2·64	1·52	2·53	8·33	19·29	17·92	6·30	0·76	0·34	1·30	67·72
	Mussooree	2·93	3·00	2·37	1·46	2·45	10·38	30·46	31·84	10·06	0·95	0·42	1·23	97·55

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inches.	Inches.
United Provinces—*contd.*	Srinagar . .	2·31	2·66	1·76	0·84	1·99	4·86	9·26	9·04	3·19	0·72	0·25	0·70	37·58
	Pauri .. .	2·61	2·77	2·03	1·21	2·39	5·60	13·89	13·19	4·86	0·78	0·30	0·75	50·38
	Ranikhet .	2·52	2·27	1·80	1·26	2·38	6·30	13·47	13·39	6·73	1·27	0·28	0·89	52·56
	Almora .. .	2·10	1·89	1·60	0·99	2·10	6·07	9·98	9·07	5·07	1·08	0·21	0·62	40·78
	Pithoragarh .	2·14	2·45	1·75	1·50	3·17	7·73	13·06	11·90	5·98	1·38	0·17	0·68	51·91
	Naini Tal .	3·11	2·99	2·26	1·55	2·63	15·13	27·00	25·35	11·87	2·04	0·25	1·15	95·33
	Dehra Dun .	2·26	2·04	1·16	0·65	1·45	9·09	25·98	26·31	8·97	0·83	0·21	0·68	79·63
	Saharanpur .	1·47	1·34	0·94	0·36	0·73	4·61	12·26	10·32	4·81	0·45	0·22	0·68	38·19
	Roorkee . .	1·85	1·48	0·85	0·36	1·04	5·09	12·63	12·60	5·51	0·58	0·24	0·52	42·75
	Muzaffarnagar .	1·26	0·91	0·78	0·38	0·85	3·88	10·25	8·48	4·91	0·34	0·11	0·42	32·57
	Bijnor .. .	1·26	1·13	0·81	0·46	0·69	4·83	11·20	10·35	5·91	0·45	0·13	0·38	37·60
	Meerut .. .	1·05	0·83	0·63	0·34	0·70	3·60	9·37	7·64	4·55	0·43	0·08	0·40	29·62
	Moradabad .	1·21	1·12	0·71	0·30	0·86	5·24	13·63	10·45	5·70	0·81	0·12	0·40	40·55
	Rudarpur .	1·38	1·20	0·81	0·23	1·00	5·96	16·42	13·97	6·96	0·98	0·08	0·45	49·44
	Pilibhit .. .	1·16	1·18	0·75	0·32	1·04	6·46	17·45	14·27	9·17	1·08	0·09	0·47	53·44
	Bulandshahr .	0·82	0·90	0·42	0·27	0·53	3·01	8·32	7·96	4·51	0·42	0·07	0·44	27·67
	Bareilly . .	1·06	0·80	0·65	0·25	0·77	5·99	14·50	10·53	6·97	1·16	0·10	0·31	43·09
	Budaun . .	0·88	0·59	0·44	0·16	0·44	4·16	11·32	9·01	6·41	0·84	0·10	0·32	34·67
	Shahjahanpur .	0·86	0·74	0·52	0·16	0·97	5·43	12·90	10·02	6·96	1·14	0·13	0·30	40·13
	Aligarh . .	0·76	0·49	0·36	0·17	0·45	3·19	9·29	7·53	4·59	0·44	0·04	0·35	27·66
	Muttra . .	0·53	0·35	0·23	0·17	0·52	2·83	9·05	7·52	4·35	0·35	0·06	0·27	26·23
	Agra . .	0·55	0·33	0·25	0·16	0·64	2·89	9·85	7·24	4·49	0·39	0·06	0·29	27·14
	Etah .	0·54	0·35	0·46	0·09	0·44	3·14	9·59	8·46	4·72	0·76	0·05	0·29	28·89
	Mainpuri .	0·68	0·37	0·27	0·13	0·45	3·26	9·61	8·50	5·52	0·78	0·10	0·37	30·04
	Farrukhabad .	0·65	0·39	0·36	0·09	0·51	3·84	10·39	9·19	5·39	0·96	0·09	0·33	32·19
	Etawah . .	0·53	0·29	0·37	0·12	0·43	2·98	8·88	9·09	4·69	0·90	0·08	0·31	28·67
	Cawnpore .	0·74	0·44	0·23	0·12	0·43	3·59	10·29	9·89	5·01	1·18	0·13	0·24	32·29
	Fatehpur .	0·72	0·45	0·26	0·14	0·35	4·21	10·03	10·06	5·10	1·53	0·17	0·28	33·30
	Jalaun (Orai) .	0·48	0·27	0·20	0·07	0·29	3·53	10·81	10·99	4·99	0·73	0·05	0·26	32·67
	Hamirpur .	0·54	0·37	0·21	0·09	0·34	4·51	11·32	9·39	5·04	1·05	0·17	0·34	33·37
	Banda . .	0·72	0·36	0·26	0·10	0·35	4·58	12·07	10·57	5·67	1·40	0·36	0·28	36·72
	Allahabad .	0·82	0·48	0·38	0·14	0·29	5·09	12·24	10·88	6·32	2·40	0·25	0·23	39·52
	Basti . .	0·83	0·46	0·31	0·24	1·13	6·56	13·19	12·79	9·25	2·74	0·05	0·11	47·66
	Gorakhpur .	0·78	0·55	0·40	0·38	1·41	7·90	13·37	12·36	8·72	3·48	0·17	0·13	49·65
	Azamgarh .	0·66	0·46	0·34	0·15	0·81	5·52	11·66	10·97	7·66	2·71	0·10	0·14	41·18
	Jaunpur . .	0·75	0·43	0·28	0·12	0·75	5·33	12·12	11·72	8·01	3·16	0·14	0·14	42·95

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inch.	Inches.
United Provinces—*concld.*	Benares	0·74	0·51	0·33	0·15	0·56	5·45	12·54	11·19	6·54	0·35	0·17	0·17	38·70
	Mirzapur	0·75	0·64	0·48	0·14	0·51	4·86	12·86	12·36	6·88	2·35	0·27	0·18	42·08
	Ballia	0·65	0·59	0·22	0·26	0·84	6·24	11·42	10·72	7·64	3·43	0·17	0·12	42·30
	Dudhi	0·68	0·61	0·41	0·21	0·66	5·27	11·93	12·81	7·30	3·06	0·26	0·30	43·50
	Robertsganj	0·77	0·58	0·42	0·21	0·64	5·59	13·51	12·81	7·39	2·77	0·37	0·27	45·33
	Jhansi	0·60	0·31	0·33	0·13	0·31	3·00	12·69	10·92	5·66	0·65	0·07	0·27	36·94
	Lalitpur	0·34	0·29	0·31	0·12	0·51	5·36	12·69	12·80	6·54	0·92	0·17	0·36	40·61
Oudh.	Kheri	0·99	0·77	0·47	0·21	1·21	6·70	12·02	13·63	7·90	1·33	0·16	0·38	45·77
	Sitapur	0·85	0·52	0·44	0·27	0·87	5·82	11·60	11·04	6·25	1·30	0·15	0·32	39·43
	Bahraich	0·84	0·76	0·42	0·35	1·56	6·07	13·55	11·44	8·02	1·64	0·12	0·39	45·16
	Gonda	0·71	0·61	0·33	0·24	1·17	6·47	12·67	12·29	8·30	1·49	0·10	0·28	44·66
	Hardoi	0·68	0·37	0·58	0·17	0·45	4·41	10·86	10·64	6·12	1·15	0·12	0·36	35·91
	Nawabganj (Bara Banki).	0·85	0·37	0·38	0·15	0·91	5·55	12·08	10·04	8·39	1·06	0·07	0·46	40·31
	Lucknow	0·90	0·45	0·32	0·11	0·91	5·34	11·39	11·32	6·61	1·33	0·08	0·44	39·20
	Unao	0·84	0·34	0·27	0·10	0·60	4·63	11·17	10·49	5·32	1·32	0·09	0·37	35·54
	Fyzabad	0·80	0·42	0·48	0·17	1·03	6·24	13·40	11·75	8·49	1·94	0·08	0·23	45·03
	Sultanpur	0·72	0·41	0·22	0·21	0·61	6·21	12·43	11·02	7·60	2·18	0·15	0·22	42·98
	Rae Bareli	0·68	0·44	0·22	0·09	0·38	5·32	11·02	11·11	7·59	1·34	0·12	0·23	38·54
	Partabgarh	0·85	0·42	0·22	0·04	0·45	5·15	11·63	11·33	7·13	2·27	0·21	0·29	39·99
Bengal.	Motihari	0·57	0·37	0·49	0·67	2·65	8·90	12·49	12·24	9·46	3·38	0·12	0·13	51·47
	Darbhanga	0·65	0·45	0·37	0·69	2·59	7·66	12·13	12·24	9·33	2·80	0·07	0·11	49·09
	Siwan	0·83	0·57	0·26	0·27	1·62	7·24	11·83	11·51	8·62	3·07	0·17	0·11	46·10
	Buxar	0·79	0·49	0·28	0·14	0·80	5·36	11·72	11·03	6·98	2·97	0·38	0·19	41·13
	Chapra	0·74	0·49	0·38	0·32	1·35	6·66	11·29	9·73	7·22	2·63	0·25	0·09	41·15
	Arrah	0·88	0·61	0·47	0·47	1·47	6·96	13·35	10·50	8·23	2·77	0·21	0·13	46·05
	Patna (Bankipore)	0·72	0·53	0·35	0·30	1·70	7·76	11·41	10·72	7·82	2·89	0·20	0·14	44·54
	Muzaffarpur	0·79	0·47	0·43	0·47	2·41	7·26	11·90	10·60	8·17	2·92	0·12	0·07	45·61
	Barh	0·65	0·58	0·34	0·17	1·93	6·17	12·35	10·47	7·57	2·36	0·18	0·09	42·86
	Sasaram	0·58	0·59	0·36	0·15	0·96	5·58	11·76	12·49	6·84	2·79	0·27	0·23	42·60
	Gaya	0·71	0·64	0·45	0·27	1·08	6·78	12·30	11·08	6·87	2·32	0·27	0·17	42·94
	Jamui	0·75	0·71	0·41	0·45	1·88	7·30	13·95	11·65	7·45	2·17	0·12	0·07	46·91
	Madhipura	0·58	0·66	0·42	1·07	3·81	8·25	12·87	11·91	10·74	3·36	0·06	0·05	53·78
	Monghyr	0·53	0·67	0·44	0·50	2·18	7·01	12·42	11·03	8·71	3·45	0·20	0·07	47·19
	Bhagalpur	0·55	0·68	0·44	0·88	2·79	8·28	12·21	11·26	8·48	3·54	0·17	0·07	49·35
	Godda	0·56	0·63	0·49	0·55	3·39	7·90	11·80	10·51	9·71	2·79	0·27	0·08	48·68
	Palamau	0·75	0·53	0·63	0·27	1·04	6·12	12·51	12·11	7·54	2·40	0·35	0·29	44·54

TABLE XXX.—*Normal monthly and annual rainfall at 349 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
BENGAL—*contd.*	[illegible]	0·39	0·81	0·69	0·43	1·77	8·78	13·62	12·72	8·26	3·31	0·30	0·21	51·49
	Ra[illegible]	0·69	1·08	1·33	0·75	2·24	8·21	13·20	11·97	8·62	2·99	0·31	0·18	51·57
	[illegible]	0·81	0·83	0·84	0·63	1·73	8·52	12·51	13·31	9·19	2·45	0·46	0·40	51·68
	Naya Danka	0·59	0·70	0·81	1·02	3·59	9·96	14·14	13·41	10·01	3·91	0·31	0·16	58·61
	Gobindpur	0·52	0·79	0·57	0·62	2·28	8·10	12·29	11·65	7·88	3·39	0·18	0·14	48·41
	Purulia	0·44	1·02	0·98	0·99	2·94	10·09	12·23	12·28	8·14	3·24	0·24	0·18	52·77
	Sirguja	0·98	1·19	0·75	0·30	0·67	10·10	18·41	21·52	7·78	2·30	0·55	0·42	64·97
	Jushpore	0·78	[illegible]	[illegible]	0·69	1·57	11·30	[illegible]	[illegible]	10·36	4·03	0·41	0·35	64·58
	Gangpur	[illegible]	[illegible]	[illegible]	0·87	1·33	[illegible]	[illegible]	[illegible]	8·32	2·78	0·69	0·40	60·95
	Chaibassa	[illegible]	[illegible]	[illegible]	1·03	3·70	[illegible]	[illegible]	[illegible]	8·30	2·68	0·40	0·26	53·80
	Barrengudda	0·16	[illegible]	[illegible]	1·57	4·84	[illegible]	[illegible]	[illegible]	11·81	4·72	0·81	0·14	62·32
	Keonjhar	0·18	[illegible]	[illegible]	1·18	2·13	[illegible]	[illegible]	[illegible]	6·56	2·93	0·83	0·28	40·27
	Jellasore	0·44	[illegible]	[illegible]	1·36	4·27	[illegible]	[illegible]	[illegible]	10·95	4·57	0·65	0·13	58·22
	Balasore	0·56	[illegible]	[illegible]	2·69	5·14	[illegible]	[illegible]	[illegible]	12·98	6·59	1·18	0·19	66·65
	Bhadrak	0·31	[illegible]	[illegible]	2·16	5·50	[illegible]	[illegible]	[illegible]	10·89	5·25	1·77	0·31	61·39
	Talcher	0·18	[illegible]	[illegible]	1·03	2·69	[illegible]	[illegible]	[illegible]	[illegible]	3·19	1·06	0·18	52·65
	Narsinghpur	0·46	[illegible]	[illegible]	0·24	0·39	[illegible]	[illegible]	[illegible]	[illegible]	1·45	0·25	0·38	49·25
	Angul	0·18	0·17	[illegible]	1·18	2·75	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1·20	0·35	51·29
	Dhenkanal	0·24	0·64	[illegible]	0·63	3·09	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1·15	0·28	57·98
	Bispara	0·27	[illegible]	[illegible]	1·53	3·08	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0·96	0·24	55·44
	Kunjabangar	0·18	[illegible]	[illegible]	1·45	3·16	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1·11	0·10	51·99
	Banki (Charchika)	0·20	[illegible]	[illegible]	0·76	2·79	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0·40	54·75
	Cuttack	0·38	[illegible]	[illegible]	1·38	2·54	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0·34	60·35
	Baramba	0·23	[illegible]	[illegible]	1·08	3·04	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0·04	53·55
	False Point	0·49	0·90	2·02	1·73	4·46	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	0·47	69·43
	Puri	0·25	0·93	0·62	0·78	2·89	[illegible]	[illegible]	[illegible]	[illegible]	0·75	[illegible]	0·55	55·92
	Darjeeling	0·76	1·08	2·01	4·08	7·83	[illegible]	[illegible]	[illegible]	[illegible]	5·35	[illegible]	0·60	121·80
	Gangtok	1·04	3·37	5·69	11·58	22·20	[illegible]	[illegible]	[illegible]	21·30	5·89	[illegible]	1·05	141·73
	Mongpoo	0·86	2·89	3·95	4·44	9·91	[illegible]	[illegible]	[illegible]	17·42	3·90	[illegible]	0·18	124·05
	Pedong	1·01	1·09	2·64	5·40	9·26	[illegible]	[illegible]	[illegible]	15·02	[illegible]	[illegible]	0·31	103·43
	Buxa	1·10	1·02	2·80	8·70	20·24	[illegible]	[illegible]	[illegible]	30·76	10·19	0·67	0·65	208·61
	Jalpaiguri	0·48	0·39	1·47	3·63	11·84	[illegible]	[illegible]	[illegible]	22·68	4·78	0·14	0·07	125·72
	Cooch Behar	0·49	0·42	1·66	5·89	15·26	[illegible]	[illegible]	[illegible]	21·82	4·79	0·14	0·08	128·56
	Kishanganj	0·69	0·47	0·69	1·83	6·06	[illegible]	[illegible]	[illegible]	15·92	3·19	0·03	0·09	79·34
	Purnea	0·49	0·56	0·40	1·36	4·32	[illegible]	[illegible]	[illegible]	14·34	3·43	0·67	0·10	64·36
	Rangpore	0·49	0·43	1·16	3·16	10·37	[illegible]	[illegible]	[illegible]	14·18	4·94	0·24	0·08	83·95

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

PROVINCE.	STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
		Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inches.
BENGAL—*concld.*	Dinajpore	0·38	0·59	0·75	2·24	7·69	16·15	15·23	13·48	13·31	4·30	0·16	0·08	74·36
	Malda	0·68	0·76	0·82	1·35	3·87	9·89	11·07	10·27	10·86	4·18	0·22	0·25	54·22
	Bogra	0·51	0·99	0·98	3·11	8·36	14·48	15·12	12·08	11·65	4·58	0·82	0·09	72·77
	Rampur Boalia	0·34	0·84	1·15	1·81	5·56	10·81	11·45	10·75	10·40	4·46	0·31	0·06	57·94
	Pubna	0·38	1·07	1·50	3·31	7·26	11·41	10·81	11·22	9·89	3·98	0·59	0·07	61·49
	Suri	0·44	0·91	0·78	0·92	3·48	11·35	12·90	12·54	9·77	3·49	0·33	0·12	57·03
	Bankura	0·33	1·03	1·30	1·52	3·86	10·29	12·87	11·58	8·75	4·05	0·51	0·13	56·22
	Burdwan	0·38	0·89	1·24	2·20	5·56	10·17	12·32	11·49	8·59	3·93	0·64	0·13	57·54
	Hooghly	0·38	1·20	1·58	2·46	5·85	10·56	11·28	11·64	8·40	3·83	0·66	0·19	58·03
	Howrah	0·41	1·14	1·46	1·80	4·95	11·39	12·04	12·12	9·42	4·06	0·50	0·18	59·47
	Midnapore	0·55	0·91	1·39	1·62	5·21	10·39	11·90	12·14	8·72	4·42	0·56	0·21	58·02
	Tamluk	0·26	1·09	1·51	1·50	5·22	9·76	12·18	13·18	9·23	4·22	0·45	0·18	58·78
	Berhampore	0·47	0·92	1·05	1·75	4·88	9·87	10·31	10·98	9·79	4·71	0·40	0·10	55·23
	Krishnagar	0·43	1·10	1·11	2·43	6·56	9·90	10·37	10·25	7·97	4·20	0·74	0·10	55·16
	Faridpur	0·48	1·32	2·33	4·24	8·51	13·00	12·45	12·08	9·97	4·49	1·03	0·08	69·08
	Jessore	0·48	1·01	1·82	3·90	7·85	13·17	11·62	11·22	9·00	5·30	1·18	0·15	66·70
	Basirhat	0·36	1·01	1·55	2·26	5·75	11·60	12·82	12·53	9·19	4·64	0·51	0·14	62·36
	Khulna	0·45	1·31	1·79	2·87	6·61	13·06	12·28	11·78	9·37	4·47	0·72	0·20	64·91
	Barisal	0·54	1·06	2·09	3·47	7·95	16·30	16·34	12·87	11·33	5·46	1·02	0·32	78·75
	Alipore (Obsy.)	0·29	1·02	1·14	1·54	5·60	11·94	12·31	12·69	10·40	3·87	0·62	0·31	60·83
	Saugor Island	0·28	1·07	1·18	1·06	4·75	10·79	15·53	15·18	12·10	9·13	1·31	0·22	72·60
	Mymensingh	0·43	1·20	2·20	5·48	12·05	19·51	17·15	14·70	13·62	5·35	0·76	0·09	92·54
	Kishorganj	0·57	0·94	2·57	5·34	11·87	18·34	13·92	13·84	12·82	4·84	0·69	0·22	85·96
	Atia (Tangail)	0·43	1·05	1·36	3·51	8·29	12·63	11·04	11·13	8·40	4·43	0·50	0·08	62·85
	Dacca	0·36	1·07	2·59	5·41	9·39	12·95	12·73	12·38	9·33	4·88	0·86	0·17	72·12
	Comilla	0·54	0·97	2·74	6·27	10·94	17·91	17·07	15·80	11·11	5·43	1·19	0·22	90·19
	Agartalla	0·57	1·48	4·11	5·22	11·34	14·77	11·91	11·49	9·71	4·44	1·24	0·35	76·63
	Noakhali	0·44	1·00	2·75	4·66	10·07	23·36	22·14	23·94	15·51	7·92	1·61	0·35	113·75
	Demagiri	0·41	1·35	3·69	4·69	12·75	19·81	17·02	19·37	16·79	7·14	1·53	0·64	105·19
	Rangamatia Hills	0·43	1·15	3·10	4·34	10·82	17·68	17·92	17·51	11·60	6·47	1·53	0·48	93·03
	Chittagong	0·41	1·16	2·14	4·47	9·68	22·81	22·92	19·99	13·03	6·41	1·49	0·58	105·09
	Cox's Bazar	0·48	0·41	1·45	2·38	10·62	31·99	39·92	27·64	14·40	8·32	1·97	0·29	139·87
ASSAM	Sylhet	0·37	1·48	6·25	13·92	21·83	32·17	25·39	25·39	20·55	7·90	1·12	0·27	156·64
	Silchar	0·64	2·32	7·93	13·56	15·72	20·39	19·98	18·69	13·95	6·40	1·31	0·54	121·43
	Cherra Poonjee	0·74	2·16	11·08	32·24	51·53	105·12	109·49	76·50	53·25	13·97	1·49	0·23	457·80
	Tura	0·56	0·79	2·11	6·41	15·63	25·11	25·58	19·92	19·65	7·53	0·42	0·11	123·82

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inches.
Assam—*contd.*	Shillong	0·49	0·81	1·85	4·29	10·06	16·46	13·48	12·79	14·78	6·23	0·98	0·25	82·47
	Dhubri	0·39	0·55	1·86	5·01	16·14	25·28	16·71	12·18	13·32	3·75	0·14	0·14	95·74
	Goalpara	0·43	0·61	2·22	6·76	14·05	22·30	16·66	11·95	11·54	3·91	0·21	0·21	90·85
	Kulsi	0·44	0·63	2·20	5·90	9·80	13·36	15·62	12·05	9·30	3·49	0·28	0·20	73·27
	Gauhati	0·60	0·90	2·47	6·20	9·96	12·34	12·49	10·80	7·68	2·99	0·52	0·24	67·19
	Nowgong	0·77	0·98	2·44	5·43	9·12	12·34	16·05	14·74	10·79	3·67	0·49	0·28	77·10
	Tezpur	0·59	0·90	2·43	6·08	9·68	12·69	14·33	12·84	8·96	3·36	0·72	0·50	73·08
	Charduer	0·88	1·00	2·30	5·46	11·59	16·31	15·74	16·98	13·65	6·26	0·35	0·83	91·35
	Sibsagar	1·14	2·16	4·74	9·88	11·47	14·14	15·89	16·29	11·77	5·17	1·11	0·59	94·35
	Dibrugarh	1·49	2·53	5·54	9·84	14·18	18·26	20·01	18·66	13·61	6·05	1·11	0·83	112·11
	Kohima	0·58	1·15	2·59	3·96	6·79	13·86	16·69	14·95	10·04	3·71	1·10	0·43	75·85
Central Provinces.	Saugor	0·67	0·51	0·22	0·16	0·51	7·40	16·41	12·47	7·73	1·17	0·33	0·55	48·13
	Damoh	0·56	0·57	0·21	0·20	0·30	6·97	16·11	14·45	7·61	1·48	0·31	0·47	49·24
	Jubbulpore	0·72	0·52	0·48	0·22	0·47	8·53	18·82	15·13	8·38	1·55	0·37	0·26	55·45
	Narsinghpur	0·46	0·41	0·27	0·24	0·39	8·00	15·46	12·87	9·07	1·45	0·25	0·38	49·25
	Hoshangabad	0·33	0·21	0·21	0·07	0·53	6·82	15·42	13·58	9·59	1·31	0·39	0·44	48·90
	Khandwa	0·30	0·20	0·09	0·12	0·30	5·95	9·53	7·43	6·22	1·06	0·15	0·37	31·72
	Badnur (Betul)	0·46	0·32	0·56	0·29	0·49	7·20	13·08	9·89	8·28	1·75	0·39	0·49	43·20
	Pachmarhi	0·66	0·42	0·32	0·29	0·49	10·46	26·28	20·86	15·46	1·83	0·41	0·54	78·02
	Chhindwara	0·71	0·36	0·44	0·34	0·52	8·40	11·71	8·23	8·23	1·90	0·41	0·34	41·59
	Seoni	0·66	0·88	0·51	0·55	0·73	9·11	15·92	11·65	8·73	1·99	0·43	0·57	51·73
	Balaghat	0·54	0·62	0·38	0·42	0·72	11·15	22·17	18·10	9·56	1·93	0·49	0·22	66·30
	Mandla	0·63	0·67	0·73	0·46	0·46	8·61	18·07	13·75	6·85	1·59	0·28	0·33	52·43
	Bilaspur	0·50	0·39	0·74	0·74	0·88	8·46	14·84	12·39	7·83	1·87	0·57	0·27	49·48
	Sarangarh	0·21	0·52	0·69	0·35	0·68	8·40	17·12	14·59	8·03	2·99	0·53	0·13	54·24
	Raigarh	0·22	0·42	0·55	0·30	0·44	9·14	19·35	19·34	8·37	2·37	0·65	0·21	61·36
	Sambalpur	0·53	0·58	0·89	0·57	1·41	12·08	19·87	16·39	8·86	2·13	0·42	0·25	63·98
	Raipur	0·30	0·33	0·59	0·59	0·76	9·38	14·94	12·72	7·75	2·09	0·62	0·20	50·27
	Dhamtari	0·19	0·40	0·48	0·36	1·13	9·16	15·75	12·09	8·11	1·92	0·36	0·11	50·06
	Bhandara	0·78	0·62	0·58	0·53	0·82	8·36	16·84	14·01	9·62	1·67	0·69	0·35	54·87
	Nagpur	0·58	0·42	0·57	0·46	0·68	8·44	13·49	9·79	8·11	2·14	0·51	0·43	45·62
	Arvi	0·54	0·23	0·44	0·17	0·55	5·44	10·34	7·78	7·39	2·24	0·35	0·36	35·83
	Wardha	0·34	0·38	0·41	0·35	0·66	6·14	13·04	9·06	7·71	2·14	0·57	0·34	41·14
	Brahmapuri	0·39	0·35	0·84	0·44	0·59	9·11	17·91	14·00	9·56	1·99	0·54	0·37	56·09
	Chanda	0·25	0·70	1·24	0·71	1·71	7·28	16·45	12·54	9·27	2·07	0·73	0·30	53·25
	Sironcha	0·27	0·38	0·60	0·45	1·41	6·75	13·91	11·81	8·62	2·36	0·65	0·23	47·44

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inches.
Central Provinces—*contd.*	Baster (Jagadalpore)	0·11	0·24	0·81	2·16	2·37	9·75	15·03	14·36	10·74	2·84	0·78	0·18	59·37
	Chikalda	0·55	0·25	0·45	0·28	0·64	9·86	18·93	17·47	12·50	3·83	0·64	0·75	66·15
	Ellichpur	0·42	0·23	0·36	0·25	0·36	6·01	8·37	5·71	5·52	2·28	0·56	0·51	30·58
	Amraoti	0·46	0·22	0·34	0·26	0·57	6·67	9·20	6·79	5·82	1·71	0·36	0·44	32·84
	Akola	0·45	0·18	0·43	0·16	0·31	5·12	8·74	6·48	6·24	2·14	0·44	0·58	31·27
Berar	Buldana	0·52	0·22	0·25	0·28	0·50	6·07	8·30	7·35	6·75	2·10	0·48	0·45	33·27
	Basim	0·30	0·21	0·27	0·34	0·48	7·56	10·78	7·58	6·78	1·91	0·76	0·44	37·41
	Yeotmal	0·27	0·24	0·50	0·35	0·73	7·24	12·84	8·71	7·34	2·36	0·56	0·38	41·52
	Wun	0·29	0·23	0·86	0·38	0·41	6·64	13·33	10·91	7·48	1·62	0·74	0·29	43·18
	Dhulia	0·27	0·06	0·04	0·07	0·27	5·06	5·27	3·94	5·01	1·63	0·62	0·31	22·55
	Nasik	0·07	0·06	0·03	0·14	0·65	5·94	7·84	4·95	5·45	3·45	0·28	0·22	29·28
	Igatpuri	0·14	0·09	0·03	0·07	0·88	21·84	49·58	35·00	17·47	4·17	0·40	0·18	129·85
	Malegaon	0·19	0·11	0·04	0·19	0·67	4·77	4·23	3·88	6·24	2·12	0·45	0·35	23·24
	Ahmednagar	0·27	0·12	0·15	0·40	1·16	4·73	3·03	3·60	6·75	3·12	0·89	0·44	24·66
	Poona	0·18	0·05	0·13	0·58	1·45	5·35	6·90	4·03	4·43	4·11	0·85	0·20	28·26
	Lonavla	0·06	0·04	0·06	0·23	0·65	28·81	69·51	46·02	22·39	3·76	0·72	0·15	172·40
	Satara	0·27	0·10	0·10	0·93	1·46	7·59	13·35	7·44	4·43	3·96	1·34	0·41	41·38
	Mahabaleshvar	0·31	0·05	0·30	1·26	1·36	47·55	105·06	72·57	31·97	5·55	1·23	0·32	267·53
	Sholapur	0·06	0·08	0·29	0·63	1·09	4·41	4·19	5·42	7·77	3·63	0·87	0·30	28·74
	Kolhapur	0·06	0·09	0·14	1·40	2·20	7·39	12·54	7·16	4·19	5·10	0·84	0·19	41·30
	Belgaum	0·06	0·03	0·49	2·05	2·73	9·32	15·37	9·15	4·05	5·09	1·33	0·24	49·91
	Gokok	0·07	0·01	0·41	0·55	2·10	3·29	2·07	2·01	3·03	6·03	1·02	0·54	21·13
Bombay	Dharwar	0·11	0·03	0·33	1·65	2·98	5·15	6·26	4·61	3·98	5·76	1·74	0·37	32·97
	Hubli	0·09	0·01	0·32	1·77	2·66	4·21	4·26	3·11	3·62	5·85	1·17	0·20	27·27
	Nargund	0·17	0·09	0·28	1·60	2·39	3·02	1·95	3·03	5·01	6·16	0·92	0·26	24·88
	Mundargi	0·19	0	0·13	1·03	2·31	2·21	1·85	1·79	4·33	3·86	1·38	0·09	19·17
	Kalghatgi	0·12	0	0·34	1·68	2·23	6·02	7·68	5·12	3·60	5·50	1·22	0·19	33·70
	Bijapur	0·05	0·05	0·26	0·81	1·18	3·55	2·40	3·37	6·46	4·41	1·29	0·55	24·38
	Honavar	0·16	0·01	0·10	0·60	3·44	41·73	43·04	27·65	14·48	7·16	1·15	0·12	139·64
	Karwar	0·12	0·01	0·04	0·44	3·12	35·83	37·98	22·15	11·87	5·72	1·48	0·11	118·87
	Goa	0·19	0	0·02	0·33	1·60	31·34	33·42	19·90	9·56	4·71	1·12	0·08	102·27
	Vengurla	0·19	0·02	0·05	0·28	2·05	33·87	35·45	21·11	10·93	4·55	0·97	0·15	109·62
	Ratnagiri	0·60	0·02	0·05	0·15	1·27	31·32	34·25	20·19	12·53	3·62	0·45	0·06	104·51
	Colaba (Obsy.)	0·12	0·02	0·01	0·05	0·55	20·56	24·56	14·91	10·93	1·76	0·47	0·05	73·99
	Byculla (J. J. Hospital).	0·14	0·03	0·01	0·03	0·39	21·81	28·00	17·02	12·76	2·30	0·19	0·04	82·72
	Thana	0·17	0·06	0·06	0·01	0·36	23·79	37·16	21·84	12·64	2·72	0·28	0·04	99·13

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.—contd.*

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inch.	Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inches.
Bombay—*concld.*	Matheran	0·08	0·03	0·01	0·07	0·70	36·18	85·34	56·00	28·51	5·05	0·88	0·04	212·89
	Surat	0·03	0·07	0	0·01	0·15	9·46	15·54	8·82	6·39	1·57	0·15	0·03	42·22
	Broach	0·04	0·06	0·01	0	0·12	7·54	15·58	8·60	6·47	1·48	0·16	0·04	40·10
	Kaira	0·03	0·15	0·02	0·05	0·30	4·44	14·06	8·90	4·81	0·50	0·31	0·05	33·62
	Bariya	0·05	0·25	0	0·03	0·27	6·11	17·53	11·85	9·16	0·91	0·17	0·11	46·44
	Godhra	0·04	0·14	0·01	0·02	0·40	5·53	15·39	11·22	7·27	0·90	0·15	0·09	41·16
	Dohad	0·06	0·20	0·01	0·03	0·46	3·90	9·07	8·16	6·62	0·99	0·16	0·14	29·80
	Ahmedabad	0·02	0·10	0·01	0·03	0·46	3·94	11·49	8·26	4·42	0·55	0·19	0·05	29·52
	Idar	0·04	0·13	0·03	0·02	0·57	4·47	16·26	11·24	5·90	0·26	0·22	0·07	39·21
	Deesa	0·14	0·14	0·08	0·05	0·19	2·28	9·32	7·77	3·54	0·58	0·14	0·05	24·28
	Wadhwan	0·05	0·07	0·04	0·02	0·20	3·00	7·57	3·89	3·37	0·55	0·42	0·05	19·23
	Palanpur	0·10	0·18	0·06	0·07	0·56	2·89	10·50	10·17	5·19	0·45	0·10	0·11	30·38
	Rajkot	0·05	0·10	0·01	0·01	0·31	5·21	10·89	6·41	3·75	0·67	0·33	0·06	27·80
	Songod	0·03	0·08	0·05	0·02	0·21	3·57	8·72	4·94	5·53	1·51	0·21	0·03	24·90
	Jetalsar	0·05	0·09	0·04	0·05	0·20	5·54	12·81	5·52	4·10	1·46	0·49	0·04	30·39
Hyderabad.	Aurangabad (Cantt.)	0·14	0·10	0·07	0·20	0·75	6·18	7·04	5·33	6·83	2·26	0·60	0·60	30·10
	Hingoli	0·36	0·26	0·26	0·54	0·68	6·93	10·37	8·19	7·59	2·31	0·89	0·38	38·76
	Parbhani	0·06	0·05	0·22	0·35	0·52	5·28	7·19	7·07	7·81	2·56	0·62	0·23	31·96
	Nandair (Nanded)	0·11	0·23	0·46	0·52	0·64	6·35	9·23	9·09	8·79	2·60	0·69	0·53	39·24
	Bheer (Bid)	0·10	0·05	0·21	0·20	0·59	5·83	5·65	5·02	8·86	2·51	0·98	0·54	30·54
	Mominabad	0·18	0·15	0·39	0·49	0·56	6·26	6·13	6·72	8·72	2·48	1·17	0·79	34·04
	Indur (Indur)	0·05	0·13	0·48	0·49	0·38	4·65	11·11	10·63	8·28	2·09	0·95	0·33	39·57
	(Yelgandal) Karimnagar.	0·21	0·21	0·37	0·54	0·79	4·76	7·84	7·41	7·06	2·81	1·05	0·28	33·33
	(Medak) Kandi (Ibrahimpatan)	0·05	0·18	0·47	0·79	0·66	4·70	7·71	8·93	8·99	2·37	1·04	0·17	36·06
	Shumsabad.	0·06	0·17	0·49	0·84	1·11	4·40	6·25	6·98	6·39	2·68	1·37	0·15	30·89
	Sundanully (Naldurg) Dhavaseo.	0·02	0·35	0·52	0·66	0·94	4·30	5·25	7·26	8·95	2·27	1·09	0·06	31·67
	Bidar (Bidar)	0·02	0·05	0·29	0·42	1·05	6·05	5·92	7·16	9·99	3·23	0·80	0·34	35·32
	Gulbarga (Gulbarga).	0·01	0·18	0·50	0·98	1·00	5·74	8·88	8·79	9·21	3·46	1·30	0·52	40·57
	Bolaram	0·07	0·20	0·29	0·84	1·18	4·93	4·91	5·97	7·19	3·08	0·69	0·24	29·59
	Secunderabad	0·10	0·19	0·54	0·61	1·05	3·72	6·55	7·10	5·87	3·01	0·94	0·31	29·99
	Hyderabad (Residency).	0·23	0·23	0·72	0·69	1·28	3·78	6·03	6·09	5·50	3·14	0·95	0·20	28·84
	Zanawada (Hyderabad).	0·09	0·09	0·54	0·68	0·80	4·40	5·91	6·56	6·89	3·29	1·25	0·40	30·90
	(Nalgunda) Bhongir.	0·06	0·53	0·61	0·74	0·85	3·98	6·07	6·88	7·76	2·40	1·03	0·01	30·92
	Khammam (Hanumkonda) (Warangal).	0·13	0·08	0·41	0·54	0·91	3·46	4·70	5·21	5·95	3·17	1·75	0·11	26·42
	Sirpur-Tandur	0·23	0·22	0·79	0·46	0·74	4·46	8·34	7·41	6·99	2·36	1·17	0·26	33·43
		0·04	0·41	0·37	0·32	0·46	6·59	13·34	9·72	6·55	2·06	0·93	0·53	41·32

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.—contd.*

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Hyderabad—*concld.*	Mahbubnagar (Palmoor).	0·02	0·10	0·41	0·68	1·24	3·95	6·86	7·20	6·14	2·86	0·75	0·24	30·45
	Raichur	0·02	0·07	0·30	0·65	0·95	3·71	4·69	5·51	6·29	3·83	0·96	0·10	27·08
	Raichur (Cantt.)	0	0·15	0·34	0·64	1·41	3·58	4·45	5·63	6·53	2·54	0·86	0·13	26·26
Madras	Rambha	0·18	0·80	0·93	0·79	1·58	5·54	6·34	7·03	8·27	9·58	2·21	0·81	44·06
	Gopalpur	0·13	0·47	0·66	0·67	2·09	6·18	7·55	8·04	7·14	9·54	4·11	0·72	47·30
	Aska	0·20	0·61	1·35	1·41	3·01	6·36	7·65	8·79	8·07	6·60	2·13	0·47	46·65
	Vizianagram	0·12	0·46	0·96	0·57	2·43	4·59	5·02	6·63	8·00	7·95	2·39	1·04	40·16
	Bimlipatam	0·21	0·46	0·22	0·30	1·91	3·25	3·59	4·46	6·30	8·25	2·88	0·90	32·73
	Rayaghadda	0·10	0·40	0·92	1·69	3·32	7·62	9·40	8·95	6·47	3·86	1·33	0·54	44·60
	Nourangapur	0·11	0·29	0·45	1·42	1·76	8·81	18·63	18·49	11·14	3·18	0·72	0·07	65·07
	Gunipore	0·06	0·53	1·14	1·89	2·66	7·20	10·22	10·78	7·78	4·66	1·60	0·28	48·80
	Jaipur	0·06	0·28	0·71	1·38	2·31	10·92	20·18	20·60	12·94	4·41	1·16	0·44	74·99
	Koraput	0·09	0·23	0·76	1·07	2·64	8·69	15·66	15·20	10·61	3·94	1·30	0·19	60·38
	Malkanagiri	0·01	0·12	0·47	1·18	1·81	8·80	19·14	17·63	13·54	3·50	0·94	0·04	67·18
	Narsapatnam	0·23	0·45	0·93	1·34	3·75	5·01	5·35	5·52	8·65	7·84	2·77	0·72	42·56
	Waltair	0·26	0·25	0·35	0·71	2·61	4·30	4·74	5·82	7·80	10·98	4·67	1·49	43·98
	Cocanada	0·17	0·33	0·32	0·51	1·78	4·29	5·58	5·43	6·32	8·90	4·13	0·71	38·47
	Rajahmundry	0·14	0·25	0·32	0·91	2·93	4·84	7·09	6·67	7·15	6·45	1·98	0·15	38·88
	Ellore	0·16	0·17	0·37	0·58	1·37	4·32	5·88	6·42	7·33	5·76	2·29	0·28	34·93
	Masulipatam	0·17	0·16	0·26	0·40	1·34	4·33	5·67	6·09	6·56	8·36	4·43	0·53	38·30
	Guntur	0·24	0·19	0·46	0·60	1·58	3·72	5·03	5·77	5·76	5·97	2·32	0·36	32·00
	Vinukonda	0·19	0·09	0·25	0·64	1·50	2·52	2·97	3·82	4·80	5·72	3·14	0·51	26·15
	Ongole	0·22	0·09	0·21	0·43	1·33	1·92	2·93	3·89	5·95	9·58	6·82	0·88	34·25
	Nellore	0·47	0·09	0·18	0·26	1·17	1·40	2·29	3·22	3·52	9·50	10·17	3·04	35·31
	Udayagiri	0·31	0·21	0·44	0·78	1·53	1·37	1·86	2·10	2·92	7·74	6·79	1·87	27·92
	Tada	0·52	0·48	0·18	0·27	1·59	2·10	2·75	3·97	4·06	9·95	11·50	4·19	41·56
	Kurnool	0·05	0·03	0·43	0·86	1·61	3·23	5·13	5·92	6·45	3·77	0·90	0·15	28·53
	Nandayal	0·07	0·04	0·16	0·50	1·45	4·47	5·28	6·93	8·29	4·67	1·00	0·17	33·03
	Bellary	0·10	0·03	0·42	0·83	1·93	1·84	1·41	2·18	4·12	4·04	1·20	0·20	18·30
	Gooty	0·03	0·05	0·08	0·[illegible]6	1·60	2·49	2·81	4·07	4·79	4·10	1·21	0·11	21·80
	Adoni	0·04	0	0·26	0·69	1·45	3·61	3·79	5·31	5·81	3·93	0·81	0·15	25·86
	Dharmavaram	0·01	0·10	0·16	0·50	1·34	2·30	1·60	2·86	4·85	4·48	1·83	0·25	20·28
	Cuddapah	0·15	0·04	0·17	0·42	1·59	2·66	3·70	5·42	6·03	5·26	3·03	0·80	29·27
	Madanapalle	0·11	0·13	0·30	0·97	2·37	2·25	2·08	3·23	4·68	5·94	3·79	1·08	26·93
	Chittoore	0·27	0·21	0·32	0·67	2·70	2·53	2·94	4·82	6·22	6·51	4·66	2·00	33·85
	Vellore	0·49	0·33	0·19	0·71	3·00	2·63	3·58	5·29	6·14	7·51	5·89	2·88	38·64

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Madras—*contd.*	Chandragiri	0·18	0·22	0·21	0·58	1·99	2·34	2·56	4·38	4·97	5·74	6·47	2·34	31·98
	Arcot	0·37	0·44	0·36	0·68	2·14	2·72	3·72	5·86	5·96	6·16	5·87	2·84	37·12
	Madras	0·83	0·28	0·37	0·65	1·96	2·06	3·80	4·66	4·84	10·93	13·30	5·25	48·93
	Palmaner	0·15	0·20	0·38	0·78	2·77	2·92	2·83	4·41	6·18	6·74	4·22	1·61	33·19
	Saidapet	0·52	0·41	0·26	0·55	1·67	2·24	3·77	4·92	5·57	11·12	14·11	5·21	50·35
	Chingleput	0·39	0·32	0·13	0·44	1·37	2·61	3·77	5·46	5·06	8·52	10·05	4·29	42·41
	Conjeeveram	0·42	0·26	0·11	0·70	1·78	2·67	4·12	5·96	6·07	7·09	8·42	3·62	41·22
	Tindivanam	0·39	0·54	0·25	0·85	2·09	1·90	3·12	6·53	6·84	8·24	8·26	3·88	42·89
	Cuddalore	0·85	0·38	0·34	0·91	1·38	1·54	2·76	5·05	5·30	9·96	13·61	7·06	49·14
	Vriddhachalam	0·34	0·31	0·27	0·80	1·91	1·58	2·80	5·48	5·51	7·01	7·33	4·04	37·38
	Udayarpalaiyam	0·63	0·45	0·31	1·06	2·85	1·63	2·68	4·80	5·26	7·36	7·70	5·06	39·79
	Salem	0·26	0·23	0·80	2·04	4·55	2·95	3·70	6·03	6·51	6·83	2·88	0·92	37·70
	Atur	0·29	0·32	0·70	1·47	3·83	1·65	2·39	4·33	5·78	7·74	4·86	1·53	34·89
	Shevaroy Hills	0·38	0·48	0·76	2·58	6·15	5·42	7·33	9·96	9·65	10·34	6·25	3·27	62·57
	Kumbakonam	0·55	0·55	0·51	0·81	2·24	2·08	2·39	4·68	4·93	8·33	8·41	5·95	41·43
	Tirupatur	0·09	0·31	0·44	1·01	4·30	2·75	3·44	5·20	7·49	6·08	3·62	1·00	35·73
	Hosur	0·18	0·31	0·43	1·76	4·24	2·09	2·39	4·43	5·43	5·98	3·50	0·99	31·73
	Tranqueber	1·05	0·46	0·11	1·02	1·54	1·19	2·42	4·07	3·82	10·18	14·85	10·15	50·86
	Negapatam	1·15	0·72	0·32	1·02	1·81	1·30	1·74	3·29	3·55	10·08	15·02	11·23	51·23
	Tanjore	0·52	0·43	0·42	1·13	2·06	1·56	1·88	3·92	4·99	6·24	5·93	4·27	33·35
	Patukota	0·76	0·75	0·53	1·86	2·26	1·63	2·15	4·65	3·75	7·58	7·99	6·00	39·91
	Trichinopoly	0·79	0·57	0·57	2·16	3·48	1·39	1·83	4·35	5·01	7·72	5·01	2·99	35·87
	Karur	0·20	0·17	0·30	1·88	3·52	1·46	1·07	2·91	3·85	6·02	3·10	1·43	25·91
	Coimbatore	0·35	0·31	0·53	1·86	2·33	1·80	1·21	1·15	1·32	5·99	3·19	1·00	21·04
	Kollegal	0·15	0·12	0·82	2·04	5·44	2·45	2·25	4·70	6·22	7·13	2·51	0·56	34·38
	Dindigul	0·45	0·43	0·51	2·17	3·05	1·93	1·47	2·32	3·22	6·43	4·70	2·69	29·37
	Madura (Obsy.)	0·51	0·47	0·63	2·48	2·66	1·50	2·01	4·35	4·69	8·90	5·05	2·04	35·29
	Vattanum	0·93	0·93	0·81	2·85	1·49	0·84	0·93	1·87	2·03	7·97	8·08	5·65	34·38
	Periyakulam	0·63	0·98	1·73	2·69	2·73	1·08	0·69	1·92	2·57	7·55	4·77	1·53	28·87
	Tinnevelly	1·01	0·90	1·43	2·05	1·48	0·62	0·27	0·50	0·99	6·71	8·75	3·52	28·23
	Tuticorin	0·82	0·61	0·86	1·91	0·89	0·21	0·16	0·31	0·63	4·87	7·40	2·70	21·37
	Satur	0·31	0·72	1·05	1·97	2·29	0·60	0·92	1·69	2·30	6·87	4·04	2·00	24·76
	Cochin	0·80	0·80	2·12	5·24	12·00	30·12	21·71	12·44	8·74	12·46	5·16	1·72	113·31
	Palghat	0·06	0·23	0·75	2·94	4·52	18·02	20·18	11·70	5·85	7·60	3·01	0·64	75·50
	Wellington	1·12	1·41	2·17	3·95	3·84	3·39	3·33	3·85	5·56	10·57	7·10	3·82	50·11
	Manantoddy	0·20	0·29	1·13	3·14	4·52	24·59	33·82	19·10	7·00	5·71	2·21	0·48	102·19

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Madras—*concld.*	Calicut	0·17	0·16	0·79	3·70	9·04	36·46	29·36	14·89	7·39	9·12	3·80	1·32	116·20
	Tellicherry	0·27	0·15	0·39	3·68	8·70	41·99	37·07	18·87	9·35	7·29	3·11	0·87	131·44
	Cannanore	0·32	0·22	0·21	2·67	6·87	39·50	34·72	18·08	8·40	7·52	3·06	0·46	122·03
	Mangalore	0.13	0·07	0·11	2·06	7·26	38·47	37·39	22·88	11·09	7·90	1·97	0·50	129·83
Mysore and Coorg.	Bangalore	0·06	0·22	0·72	1·19	4·53	3·13	4·13	6·00	7·11	6·74	2·61	0·39	36·83
	Mysore	0·07	0·17	0·64	2·46	5·38	2·08	2·31	3·10	4·26	6·67	1·80	0·43	29·37
	Shimoga	0·06	0·11	0·34	1·93	3·20	4·89	7·05	4·38	3·30	5·08	1·42	0·34	32·10
	Mercara	0·18	0·09	0·92	2·48	5·50	27·88	42·13	26·94	11·93	7·93	2·48	0·50	128·96
	Kolar	0·16	0·04	0·50	1·32	3·34	3·13	3·36	4·16	5·10	5·50	3·17	0·81	30·59
	Tumkur	0·14	0·19	0·33	1·42	4·39	3·28	4·01	5·14	6·39	6·69	1·74	0·36	34·08
	Chitaldroog	0·16	0·03	0·25	1·47	3·29	2·87	2·73	2·87	3·93	4·44	2·35	0·37	24·76
	Chikmagalur	0·20	0·20	0·63	2·42	4·60	4·93	6·00	3·47	3·61	6·85	2·27	0·46	35·64
	Hassan	0·61	0·09	0·44	1·95	4·40	4·18	4·89	3·06	3·24	5·85	1·90	0·53	31·20
Ceylon.	Trincomalee	5·75	2·15	1·41	2·13	2·37	1·37	2·12	4·49	4·17	7·99	13·63	15·28	62·86
	Colombo	3·24	1·89	4·75	11·43	12·10	8·35	4·46	3·81	4·98	14·36	12·55	6·35	88·27
	Ratnapura	4·95	4·40	8·23	12·61	18·71	20·83	11·70	12·81	14·36	18·73	14·71	8·72	150·76
	Puttalam	2·06	1·31	2·88	6·11	3·58	1·86	0·41	0·72	0·93	8·74	10·97	6·48	46·05
	Anuradhapur	2·96	1·30	2·78	7·75	4·02	1·65	1·07	1·87	2·84	8·56	10·95	9·16	54·91
	Mannar	2·29	1·28	1·50	2·78	2·41	0·62	0·23	0·48	1·04	8·15	10·19	7·94	38·91
	Jaffna	1·94	1·22	0·92	2·47	1·95	0·73	0·75	1·50	2·60	9·81	13·57	11·00	48·46
	Batticoloa	8·10	3·92	3·08	1·86	1·71	1·03	1·10	2·32	2·62	6·43	12·35	16·68	61·20
	Hambantota	3·63	1·53	2·14	2·62	3·24	2·56	1·32	1·42	2·37	4·78	6·89	5·41	37·91
	Galle	4·23	2·83	4·39	10·39	11·00	8·11	5·33	5·46	7·52	13·19	12·02	6·29	90·76
	Kandy	4·94	2·40	3·43	7·19	6·11	9·13	7·04	5·91	5·75	11·98	10·48	9·11	83·47
	Nuwara Eliya	5·28	2·05	3·16	6·03	7·81	13·50	11·72	8·52	8·30	10·67	8·73	8·82	94·59
	Hakgala	8·07	2·57	4·80	7·62	7·41	8·25	5·74	4·67	5·88	10·48	11·01	14·12	90·62
	Badulla	9·42	3·27	4·30	8·40	5·48	2·70	1·44	3·31	3·15	9·92	11·91	13·73	77·03
Burma.	Akyab	0·12	0·17	0·53	1·56	12·24	49·50	53·43	39·50	23·05	11·39	3·27	0·44	195·20
	Kyaukpyu	0·11	0·04	0·25	0·95	10·71	41·39	50·78	43·50	20·73	9·36	3·67	0·49	181·98
	Sandeway	0·08	0·07	0·10	1·07	13·34	49·18	61·78	48·05	24·17	9·81	2·71	0·29	21 ·65
	Rangoon	0·11	0·23	0·16	1·74	11·73	18·30	21·37	19·65	15·89	7·12	2·52	0·07	98·89
	Bassein	0·17	0·20	0·05	1·37	9·39	21·79	25·47	23·18	15·60	7·77	3·23	0·10	108·32
	Diamond Island	0·24	0·07	0·05	1·38	10·72	23·25	25·84	23·43	17·53	7·78	5·37	0·68	116·34
	Henzada	0·07	0·18	0·04	0·87	7·10	15·97	21·19	17·97	11·21	4·94	1·71	0·06	81·31
	Myanaung	0·05	0·02	0·01	0·96	5·75	10·26	10·79	10·15	8·33	4·69	1·93	0·11	53·25
	Prome	0·02	0·01	0·02	0·82	5·40	8·81	9·19	9·52	7·11	4·52	1·75	0·07	47·24

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Burma—*contd.*	Thayetmyo	0·02	0·04	0·06	0·81	4·78	7·05	7·45	7·58	6·81	4·38	1·67	0·11	40·76
	Mandalay	0·06	0·08	0·21	1·19	3·26	5·71	3·26	4·16	6·21	4·54	1·67	0·28	32·63
	Shwebo	0·08	0·07	0·24	0·72	4·73	5·37	3·52	6·12	6·02	3·49	1·11	0·15	31·62
	Ye-u	0·08	0·07	0·37	0·94	4·70	5·51	3·93	6·60	7·85	3·75	0·70	0·24	34·74
	Minbu	0·04	0·01	0·02	0·52	4·53	4·72	3·92	5·11	5·11	3·66	1·02	0·32	28·98
	Pyinmana	0·06	0·06	0·03	1·76	6·28	7·20	10·26	11·28	8·76	5·75	1·63	0·13	53·20
	Pagan	0·03	0·03	0·13	0·53	2·84	2·95	1·85	2·93	5·63	4·06	0·89	0·17	22·04
	Kyauksai	0·19	0·07	0·12	1·23	4·50	3·65	2·29	3·71	6·27	3·68	1·48	0·27	27·46
	Bhamo	0·71	0·29	0·69	1·65	6·15	13·35	19·17	16·40	8·79	3·47	0·93	0·44	73·14
	Kindat	0·25	0·28	1·03	1·41	6·18	13·04	13·29	14·39	13·12	6·04	1·48	0·38	70·89
	Magwe	0	0·02	0·02	0·90	5·33	4·48	4·28	5·05	4·65	4·64	0·90	0·44	30·71
	Yemethin	0·05	0·22	0·14	2·04	5·29	4·69	4·32	6·28	6·70	4·60	1·42	0·42	36·17
	Fort Sagaing	0·03	0·04	0·17	0·97	5·12	4·29	3·55	4·06	6·34	4·11	1·55	0·29	30·52
	Mingin	0·11	0·03	0·52	1·34	4·74	8·02	7·53	9·67	9·72	5·22	1·35	0·20	48·45
	Toungoo	0·06	0·12	0·08	1·90	6·43	13·63	17·48	18·53	11·46	6·95	1·25	0·16	78·05
	Shwegyin	0·12	0·34	0·28	2·38	11·96	28·73	34·94	32·51	19·42	9·41	1·77	0·07	141·93
	Moulmein	0·17	0·13	0·23	3·12	20·33	37·68	44·45	42·74	29·65	7·90	1·44	0·03	187·85
	Tavoy	0·17	0·54	0·93	3·86	19·23	40·22	46·75	43·73	33·09	9·73	2·20	0·10	200·55
	Mergui	0·72	1·69	2·73	6·05	18·34	30·58	30·61	29·31	26·78	12·57	3·20	0·40	163·00
	Myingyan	0·04	0·05	0·08	0·33	3·28	2·96	3·19	4·37	5·88	3·22	1·06	0·19	24·65
	Monywa	0	0	0·23	0·71	3·54	5·26	2·62	4·61	6·27	3·94	1·03	0·16	28·37
Bay Islands.	Port Blair	0·96	0·96	0·34	2·94	16·73	17·95	15·46	14·81	18·85	11·68	8·53	5·55	114·70
	Cocos Island	0·31	0·11	0	0·93	9·95	13·04	13·99	13·50	12·67	6·20	6·17	1·10	77·97
Kashmir	Leh	0·32	0·35	0·25	0·24	0·26	0·21	0·47	0·51	0·21	0·20	0·03	0·18	3·23
	Srinagar	3·36	4·24	3·10	3·30	2·72	1·77	2·78	1·95	1·18	1·14	0·41	1·08	27·03
	Skardu	1·67	1·19	1·21	2·67	1·05	0·40	0·30	0·96	0·67	0·03	0·09	0·72	10·96
	Gilgit	0·15	0·15	0·43	1·12	0·42	0·25	0·72	0·40	0·22	0·16	0·04	0·08	4·14
Nepal	Katmandu	0·87	1·07	1·21	2·05	4·00	9·33	14·15	14·14	7·28	2·31	0·18	0·26	56·85
Extra India.	Meshed	0·29	0·92	2·00	1·90	0·97	0·24	0·02	0·01	0·07	0·59	0·65	0·64	8·30
	Teheran	1·17	0·85	2·44	0·87	0·41	0·04	0·35	0·04	0·11	0·14	1·17	1·33	8·92
	Ispahan	0·21	0·21	0·83	0·60	0·10	0	0·05	0	0	0·27	0·84	0·47	3·58
	Bushire	3·12	2·48	0·91	0·48	0·01	0	0	0	0	0·12	1·98	3·39	12·49
	Jask	0·63	1·07	0·99	0·03	0	0·10	0·02	0	0	0·06	0·54	0·94	4·38
	Muscat	1·46	0·86	1·00	0·03	0	0·32	0·04	0	0	0·02	0·65	0·54	4·92
	Baghdad	1·28	2·07	1·57	0·88	0·22	0·01	0	0·09	0	0·04	1·04	1·75	8·95
	Aden	0·27	0·23	0·74	0·25	0·17	0·04	0·04	0·13	0·12	0·01	0·13	0·13	2·26

TABLE XXX.—*Normal monthly and annual rainfall at 549 stations in Baluchistan, India, Ceylon, etc.*—concld.

Provinces.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Extra India—*concld.*	Perim	0·43	0·36	0·37	0·01	0·37	0	0·17	0·43	0·01	0·05	0·05	0·07	2·32
	Kabul	1·02	0·83	4·68	2·15	0·63	0·18	0·21	0·16	0·02	0·10	0·99	0·25	11·22
	Kashgar	0·31	0·04	0·21	0·20	0·79	0·40	0·34	0·71	0·29	0·03	0·02	0·18	3·52
	Zanzibar	3·26	1·51	6·27	11·94	10·23	1·36	2·75	1·68	2·10	3·74	8·23	4·18	57·25
	Port Victoria (Seychelles).	18·56	12·34	12·47	4·75	4·46	5·80	2·57	2·91	5·00	5·54	11·75	15·09	101·24
	Mauritius	7·16	7·05	8·23	5·16	4·07	1·91	2·25	2·37	1·38	1·58	1·89	4·93	47·98

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, wih the averages of past years.*

Provinces.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inch.	Inch.	Inches.	Inches.
Baluchistan.	Kalat	−1·74	−2·24	−1·30	−0·19	−0·11	+1·04	−0·49	−0·35	−0·04	+0·08	+0·12	?	?
	Pishin	−2·48	−2·17	−1·09	−0·50	−0·23	+0·13	−0·16	−0·16	−0·01	+0·37	−0·23	−0·72	−7·25
	Chaman	−1·29	−2·04	−1·24	−0·56	−0·06	−0·09	−0·11	0	0	+0·81	−0·46	−0·19	−5·23
	Quetta	−1·83	−2·07	−0·26	−0·49	−0·33	+0·30	−0·40	−0·51	−0·11	+0·90	+0·21	−0·50	−6·09
	Mach	−1·24	−1·75	−0·58	−0·31	+0·16	−0·26	−0·99	−0·65	−0·03	−0·32	+0·05	−0·69	−6·52
	Beleli	−1·76	−2·39	−1·08	−0·92	−0·29	−0·02	−0·09	−0·40	−0·03	+0·62	−0·44	−1·12	−7·92
	Kuchelak	−2·15	−2·29	−1·39	−0·09	−0·28	+0·72	−0·13	−0·16	−0·12	+0·40	−0·41	−1·11	−7·01
	Fort Sandeman	−0·70	−1·21	−1·15	−0·80	−0·36	−0·06	−0·18	−0·11	−0·06	−0·02	−0·31	−0·38	−5·34
	Bostan	−2·09	−2·46	−1·15	−0·16	−0·13	−0·03	−0·30	−0·13	−0·03	+0·26	−0·16	−1·18	−7·56
	Yarookares	−1·57	−2·01	−0·51	−0·21	−0·07	+0·21	−0·01	−0·15	0	+0·20	+0·01	−0·13	−5·24
	Syed Hamed	−1·83	−2·46	−1·05	−0·28	−0·03	−0·01	0	0	0	+0·07	−0·35	−0·21	−6·15
	Gulistan	−1·81	−2·15	−1·35	−0·41	−0·14	−0·04	−0·03	0	−0·04	+0·23	−0·80	−0·08	−6·62
	Killa Abdulla	−1·80	−2·52	−1·14	−0·64	−0·13	−0·03	−0·08	−0·02	−0·02	+0·13	−0·95	−0·34	−7·54
	Khania	−2·20	−2·25	−1·08	−0·69	−0·04	−0·02	−0·17	−0·13	0	+0·46	−0·17	−0·58	−6·87
	Fuller's Camp	−2·10	−2·72	−1·23	−0·93	−0·41	−0·12	−0·41	−0·11	−0·06	+0·51	−0·41	−0·52	−8·51
	Kachh	−2·14	−3·08	−1·17	−0·36	−0·25	−0·17	−0·30	−0·15	−0·11	+0·33	−0·26	−1·65	−8·97
	Mudgorge	−1·90	−1·94	−1·25	+0·25	+0·16	+1·69	+0·24	−0·28	−0·05	+0·27	−0·49	−0·73	−4·03
	Mangi	−1·07	−1·59	−1·48	−0·45	−0·12	−0·10	−0·34	−0·25	−0·12	+0·12	−0·44	−1·17	−7·01
	Dirgi	−1·28	−1·47	−1·23	−0·30	−0·14	−0·03	+0·46	−0·28	−0·21	+0·15	−0·43	−1·08	−5·84
	Khost	−1·51	−1·79	−1·27	−0·31	+0·36	−0·43	−0·96	−0·30	−0·20	−0·06	−0·81	−0·90	−8·18
	Shahrig	−1·83	−1·88	−1·11	−0·17	+0·03	−0·45	+1·38	−1·08	+1·34	−0·02	−0·59	−0·76	−5·14
	Nasak	−1·10	−1·89	−1·16	−0·28	−0·25	+0·18	−0·91	+0·76	+1·09	−0·08	−0·56	−0·97	−5·17

TABLE XXXI—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Baluchistan—*concld.*	Harnai	−1·10	−1·81	−1·03	−0·46	+0·08	+2·10	−1·48	−1·04	+0·87	−0·07	−0·31	−0·98	−5·23
	Sunari	−0·91	−1·32	−0·88	−0·32	+0·07	+2·27	−2·90	−1·54	+2·61	−0·08	−0·50	−0·77	−4·27
	Spintangi	−0·61	−1·30	−0·53	−0·25	+0·07	+0·77	−2·04	+0·51	+2·59	0	−0·33	−0·74	−1·86
	Mushkaf	−0·13	−0·27	−0·17	−0·03	−0·05	−0·12	−1·08	−0·80	+1·08	0	−0·07	−0·51	−2·15
	Baber Kach	−0·53	−0·81	−0·28	−0·16	−0·09	+0·31	−0·23	+0·35	+1·37	−0·03	−0·27	−0·59	−0·96
	Loralai (Hospital)	−0·23	−0·61	−1·12	−0·36	−0·56	−0·24	−0·74	+0·50	+0·19	+0·05	−0·27	−0·47	−3·81
	Nari	−0·48	−0·62	−0·30	−0·08	−0·06	0	−0·24	+0·45	+1·49	−0·01	−0·17	−0·51	−0·53
	Sibi	−0·58	−0·38	−0·26	−0·11	+0·10	+1·51	−0·85	−1·11	+0·63	0	−0·17	−0·61	−1·83
	Kolepur	−1·60	−1·71	−1·29	−0·31	+0·09	+0·13	−1·00	−0·39	−0·08	+0·18	+0·08	−0·98	−6·88
	Mitri	−0·41	−0·30	−0·22	−0·92	+0·51	−0·22	−1·25	−0·73	+1·94	−0·01	−0·15	−0·43	−1·56
	Lindsay	−0·30	−0·32	−0·17	−0·07	−0·13	+0·34	−0·89	−0·16	+0·48	0	−0·12	−0·39	−1·73
	Bellput	−0·28	−0·16	−0·13	−0·07	−0·03	−0·17	−0·98	+0·67	+1·75	0	−0·15	−0·27	+0·18
	Nuttal	−0·35	−0·37	−0·14	−0·10	−0·22	−0·09	−1·07	−0·66	+1·05	0	−0·35	−0·40	−2·70
	Temple Dera	−0·37	−0·29	−0·10	−0·07	−0·08	−0·08	−0·97	−0·48	+0·80	0	−0·18	−0·28	−2·10
	Jhatput	−0·22	−0·30	−0·07	−0·03	−0·07	+0·09	−0·63	+0·14	+1·72	0	−0·18	−0·24	+0·21
	Sangal	−1·98	−2·49	−1·92	−0·45	−0·10	+0·20	−0·13	−0·03	0	+0·22	−0·28	−0·31	−7·27
	Shulabagh	−2·65	−3·37	−2·14	−0·25	−0·09	−0·02	−0·40	−0·02	0	+1·05	+0·04	+0·06	−8·79
	Panir	−0·53	−0·53	−0·49	+0·32	−0·06	−0·08	−0·61	+0·83	+1·22	−0·01	−0·09	−0·58	−0·61
	Abbottabad	−3·41	−3·84	−0·09	+1·88	−0·47	+0·76	−3·57	−1·49	−1·08	+1·10	−0·42	−1·89	−12·52
Punjab and North-West Frontier Province.	Cherat	−2·26	−3·21	−2·30	−1·41	−0·60	−0·19	−1·82	−0·87	+0·40	+0·89	+0·11	−1·10	−12·36
	Murree (Obsy.)	−3·73	−3·98	−1·01	+0·90	+1·12	+4·65	−7·66	−4·89	−0·85	−0·40	−0·15	−1·35	−17·35
	Poo	−2·37	−2·00	+4·64	+2·87	−0·24	+0·27	+1·70	+2·08	+0·42	−0·33	−0·38	−1·19	+5·47
	Dharamsala	−4·56	−4·68	+0·55	+1·29	−0·01	−6·80	−21·56	−19·36	+2·15	+0·11	−0·35	−2·57	−55·79
	Kailang	−2·01	−2·44	+4·00	+1·40	−0·80	−0·50	+0·05	−0·62	−0·28	−0·22	+0·30	−1·21	−2·33
	Kilba	−4·31	−2·53	+1·15	−0·13	−0·34	+0·02	+0·90	+0·28	−1·86	+0·13	−1·48	−1·75	−9·92
	Simla (Obsy.)	−3·11	−2·28	−0·30	+0·22	−1·88	−4·32	−3·74	−9·19	−1·51	+0·19	−0·41	−1·28	−27·61
	Peshawar (Obsy)	−1·54	−1·19	−1·14	−1·12	−0·57	+0·25	−0·89	−2·12	−0·10	+0·36	−0·53	−0·55	−9·14
	Kohat	−1·35	−1·20	+0·13	−0·18	−0·57	−0·55	−1·33	−0·50	+0·18	+0·77	−0·63	−0·49	−5·72
	Bannu	−0·85	−0·77	−1·04	−0·97	−0·40	+0·21	−1·03	−0·46	+1·09	+0·31	−0·28	−0·32	−4·51
	Dera Ismail Khan	−0·44	−0·80	−0·75	−0·63	−0·25	+0·95	+0·11	−0·41	−0·48	−0·08	−0·15	−0·31	−3·24
	Dera Ghazi Khan	−0·41	−0·45	−0·15	−0·27	−0·35	+0·90	−1·52	+1·05	+0·29	+0·11	−0·11	−0·21	−1·12
	Muzaffargarh	−0·33	−0·35	−0·19	−0·22	+0·16	+2·00	−0·56	−1·12	−0·28	−0·08	−0·08	−0·27	−1·32
	Mooltan (Obsy.)	−0·39	−0·36	−0·09	−0·15	−0·26	+2·18	−0·60	−1·43	−0·60	+0·05	−0·06	−0·27	−1·98
	Jhang	−0·51	−0·45	−0·31	−0·36	−0·16	−0·34	−0·72	+2·06	−0·13	+0·33	−0·06	−0·34	−0·99
	Montgomery	−0·53	−0·60	−0·17	−0·21	+0·24	+0·93	−2·36	−0·63	−0·60	−0·05	−0·05	−0·27	−4·30
	Shahpur	−0·82	−0·95	−0·37	−0·26	+0·69	+0·32	−2·23	+2·50	−0·46	−0·15	−0·22	−0·38	−2·33

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inches.	Inches.
Punjab and North-West Frontier Province—*concld.*	Rawalpindi	2·50	−2·09	−1·09	−0·28	−0·10	+3·53	−3·21	−2·24	+0·56	+0·57	−0·57	−1·11	−8·53
	Jhelum	−1·96	−1·33	−0·84	+0·33	−0·17	+1·07	+1·73	−2·49	+1·76	−0·39	−0·19	−0·77	−3·25
	Gujarat	−1·90	−1·27	−0·67	+0·06	+0·34	+0·85	−1·52	−1·12	−0·42	−0·27	−0·22	−0·67	−6·81
	Sialkot (Obsy.)	−1·94	−1·76	−0·75	−0·79	+0·24	+1·34	−3·31	−4·61	−1·25	−0·46	−0·25	−0·77	−14·31
	Gujranwala	−1·44	−1·16	−0·79	−0·23	+1·02	+1·25	+2·04	+1·20	+3·75	−0·01	−0·20	−0·62	+4·81
	Gurdaspur	−2·18	−1·87	−0·64	+0·28	+0·55	−1·09	−3·98	−3·83	−1·17	−0·32	−0·14	−1·09	−15·48
	Lahore	−0·87	−1·10	−0·12	−0·26	−0·07	−0·94	−4·06	−1·02	+0·35	−0·20	−0·11	−0·74	−8·87
	Amritsar	−1·28	−1·18	−0·08	−0·33	+0·04	−0·25	−6·32	−0·11	−1·05	−0·17	−0·18	−0·62	−11·53
	Ferozepore	−1·11	−0·86	−0·26	−0·51	−0·03	+0·17	−2·60	+4·39	−2·41	−0·06	−0·05	−0·47	−3·80
	Jullundar	−1·52	−1·10	−0·54	−0·27	+0·32	−2·07	−3·33	−1·31	+4·06	−0·23	−0·09	−0·71	−6·79
	Hoshiarpur	−1·90	−1·66	−0·78	−0·12	−0·18	−2·14	−2·55	−6·70	+1·91	+0·62	−0·13	−1·22	−14·85
	Ludhiana	−1·44	−1·09	−0·84	+0·53	+1·32	−0·87	−2·51	−2·62	+4·11	−0·67	−0·06	−0·73	−4·87
	Umballa	−1·53	−1·52	−0·44	+0·13	+0·13	−0·58	+0·62	−6·47	−0·88	+1·39	−0·24	−0·67	−10·06
	Sirsa	−0·73	−0·35	−0·41	−0·18	+1·02	−0·18	−3·10	−1·46	−1·71	+0·02	−0·02	−0·34	−7·44
	Hissar	−0·66	−0·14	−0·47	+0·12	+0·08	+3·27	−2·84	−3·54	−1·05	−0·27	−0·07	−0·43	−6·00
	Rohtak	−0·82	−0·56	−0·54	−0·18	−0·35	+0·18	−2·40	−3·32	−0·59	−0·34	−0·03	−0·51	−9·46
	Delhi (Obsy.)	−1·02	−0·61	−0·55	−0·12	−0·27	+3·17	+1·79	−0·50	−1·07	−0·34	−0·10	−0·43	−0·45
	Gurgaon	−0·88	−0·41	−0·43	+0·23	−0·16	−0·09	+7·37	+0·79	−0·91	−0·17	−0·04	−0·34	+4·96
	Karnal	−1·28	−1·06	−0·62	+0·08	−0·37	+0·97	+1·87	+5·23	−3·26	+1·01	−0·12	−0·50	+1·95
Sind	Kurrachee	−0·66	−0·29	−0·16	−0·13	+1·82	+10·12	−3·02	+0·87	+2·48	−0·04	−0·16	−0·17	+10·66
	Sehwan	−0·39	−0·28	−0·18	−0·16	+0·47	+1·85	−1·73	−1·00	+3·52	−0·03	−0·12	−0·14	+1·81
	Tatta	−0·30	−0·21	−0·11	−0·28	+0·94	−0·05	−2·85	+0·57	+3·40	0	−0·19	−0·09	+0·83
	Hyderabad (Obsy)	−0·25	−0·20	−0·13	−0·16	+0·40	+3·14	−1·67	+2·12	+5·17	0	−0·10	−0·05	+8·27
	Umarkot	−0·18	−0·08	−0·11	−0·08	−0·08	+1·72	−2·32	+0·69	+1·71	−0·14	−0·05	−0·03	+1·05
	Shikarpur	−0·32	−0·32	−0·35	−0·19	+0·21	+0·70	−1·00	−1·30	+2·82	0	−0·12	−0·18	−0·05
	Rohri	−0·32	−0·43	−0·34	−0·26	+1·25	+1·30	−1·08	−1·25	−0·02	−0·01	−0·11	−0·19	−1·46
	Jacobabad	−0·26	−0·27	−0·17	−0·17	−0·09	+0·17	−1·21	−0·07	+0·31	−0·01	−0·12	−0·14	−2·03
Cutch	Bhuj	−0·06	−0·11	−0·07	−0·09	+0·02	−1·39	−4·75	+1·22	+1·64	−0·64	−0·08	−0·06	−4·37
	Rhahpur	−0·06	−0·08	−0·05	−0·08	−0·15	−1·48	−4·08	+3·83	−0·28	−0·46	−0·16	−0·04	−3·09
	Nagar	−0·14	−0·09	−0·04	−0·04	−0·08	−0·79	−5·73	+2·23	+1·19	−0·24	−0·05	−0·03	−4·81
Rajputana.	Jaisalmer	−0·27	−0·15	−0·10	−0·12	+0·26	+1·70	−2·07	−1·38	+0·56	+0·06	−0·04	−0·09	−1·64
	Phalodi	−0·17	−0·16	−0·09	−0·02	−0·27	+5·24	−3·40	+0·68	+0·03	0	0	−0·14	+2·10
	Bikaner	−0·38	−0·24	−0·18	−0·14	−0·77	+0·19	−2·36	−1·72	+0·33	+0·07	−0·06	−0·18	−5·44
	Nagar	−0·32	−0·14	−0·15	0	−0·57	−0·32	−2·56	−1·10	−0·43	+0·33	−0·07	−0·29	−5·62
	Didwana	−0·41	−0·16	−0·25	−0·06	+0·34	+0·92	−1·68	−4·79	+0·54	+0·30	−0·13	−0·29	−5·67
	Jhunjhunu	−0·73	−0·22	−0·23	+0·11	−0·01	−0·11	−4·90	−4·51	+1·03	+0·65	−0·07	−0·29	−9·28

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inch.	Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inch.	Inches.
Rajputana—*concld.*	Khetri	−0·73	−0·55	−0·38	−0·12	+0·43	+3·63	−1·15	−4·65	+0·14	+1·09	−0·15	−0·35	−2·79
	Sikar	−0·49	−0·14	−0·21	−0·03	+0·34	−0·03	−4·20	−4·52	−0·13	+0·63	−0·10	−0·30	−9·18
	Sri Madhopur	−0·51	0	−0·23	−0·10	−0·18	−0·29	−3·82	−5·08	+0·14	+0·95	−0·18	−0·49	−9·79
	Alwar	−0·55	−0·42	−0·29	−0·11	−0·90	−0·78	−1·40	−5·24	−1·51	−0·47	−0·17	−0·44	−12·28
	Bharatpur	−0·40	−0·24	−0·32	−0·09	−0·33	−0·72	+9·05	−3·71	+0·49	−0·35	−0·05	−0·92	+3·13
	Bandikui	−0·34	−0·19	−0·30	−0·09	−0·23	+0·06	+2·63	−1·51	−1·31	+0·63	−0·16	−0·40	−1·21
	Jaipur	−0·43	−0·19	−0·31	−0·14	−0·03	−1·56	−3·96	−3·91	+4·92	−0·15	−0·16	−0·35	−5·27
	Sambhar	−0·30	−0·17	−0·20	−0·05	−0·13	+0·10	+0·21	−5·23	−0·71	−0·13	−0·22	−0·40	−7·23
	Karauli	−0·25	−0·20	−0·15	−0·09	−0·40	−3·29	+12·87	−7·72	+0·26	+0·74	−0·09	−0·34	+1·34
	Lalsot	−0·29	−0·09	−0·13	−0·06	−0·20	−1·80	+0·27	−6·11	+2·31	+0·68	−0·10	−0·21	−5·73
	Tonk	+0·02	−0·27	−0·18	−0·08	−0·05	−1·69	+5·29	−4·17	+2·29	+0·26	−0·07	−0·24	+1·11
	Siwai Madhopur	+0·42	−0·22	−0·20	−0·10	−0·29	−1·90	+5·14	−9·81	+1·11	+1·43	−0·10	−0·18	−4·70
	Deoli	−0·08	−0·20	−0·14	−0·16	−0·52	−2·69	−3·09	−5·79	−0·06	−0·08	−0·12	−0·19	−13·12
	Kotah	+0·13	−0·13	−0·09	−0·12	−0·42	−2·14	+0·22	−4·97	+2·40	−0·26	−0·15	+0·06	−5·47
	Jhalrapatan	−0·02	−0·23	−0·13	−0·05	−0·35	−5·38	+0·85	−2·30	−0·52	−0·30	−0·23	−0·35	−9·01
	Ajmer	−0·31	−0·28	−0·31	0	+0·86	−0·66	−3·31	−2·61	+2·25	−0·29	−0·20	−0·29	−5·05
	Nasirabad	−0·17	−0·31	−0·11	−0·03	+0·56	−1·47	−5·16	−1·72	−0·23	−0·09	−0·18	−0·31	−9·22
	Malpura	−0·30	−0·05	−0·24	+0·09	+0·16	−0·55	−2·34	−4·02	−0·84	−00·2	−0·02	−0·26	−8·39
	Beawar	−0·22	−0·11	−0·16	−0·12	−0·23	−1·07	−3·56	−2·37	+0·93	+0·19	−0·18	−0·25	−7·15
	Jadhpur	−0·24	−0·16	−0·03	−0·06	−0·45	+0·77	−3·42	−1·74	−0·91	−0·19	−0·10	−0·14	−6·67
Central India.	Pachpadra	−0·34	−0·07	−0·10	−0·05	−0·67	−1·10	−4·09	+0·11	−1·18	−0·03	−0·09	−0·12	−7·73
	Jasol	−0·18	−0·06	−0·08	−0·05	−0·52	−1·18	−3·38	+1·35	−0·12	−0·01	−0·18	−0·08	−4·49
	Barmer	−0·15	−0·09	−0·07	−0·06	−0·33	+0·19	−3·20	−0·94	+0·65	−0·03	−0·11	−0·05	−4·19
	Pali	−0·12	−0·02	−0·09	−0·04	−0·32	−0·63	−2·41	−0·49	+2·97	−0·08	−0·25	−0·10	−1·58
	Shahpura	−0·01	−0·16	−0·15	−0·17	−0·10	−3·30	−1·16	−3·10	−0·72	−0·09	−0·10	−0·24	−9·32
	Erinpura	−0·17	−0·21	−0·10	−0·05	−0·32	−1·88	−3·96	+0·64	+5·87	−0·34	−0·19	−0·16	−0·87
	Sirohi	−0·15	−0·14	−0·08	−0·15	−0·58	−3·03	−6·46	−2·22	+1·66	+0·05	−0·22	−0·13	−11·45
	Mount Abu	−0·27	−0·31	−0·15	+0·06	−0·67	−4·41	−20·85	−14·70	−4·36	−1·09	−0·28	−0·20	−47·23
	Kotra	−0·11	−0·21	−0·03	−0·04	+0·11	−3·06	−4·55	−4·09	+2·57	−0·25	−0·18	−0·15	−9·99
	Udaipur	−0·05	−0·15	−0·07	−0·01	+0·18	−2·60	−3·99	−3·55	+6·73	+0·67	−0·18	+0·04	−2·98
	Partabgarh	+0·22	−0·10	−0·02	−0·03	−0·32	−5·55	+0·66	−1·02	+1·86	+0·95	−0·25	+0·36	−3·24
	Kherwara	−0·09	−0·16	−0·05	+0·34	+1·23	−4·31	−2·48	−1·40	+4·09	−0·39	−0·15	+0·25	−3·12
	Banswara	−0·26	−0·13	−0·01	+0·84	−0·31	−4·69	−1·01	−4·65	+7·33	−0·67	−0·22	−0·17	−3·95
	Neemuch (Obsy.)	+0·36	−0·10	−0·08	+0·16	−0·33	−3·54	+2·40	+3·42	+0·34	−0·04	−0·14	−0·13	+2·35
	Sirdarpore	+0·37	−0·18	−0·02	−0·02	−0·25	−4·35	+1·80	+1·10	−0·12	+0·41	−0·20	+0·48	−0·98
	Agar	+1·43	−0·29	−0·03	−0·06	−0·15	−3·39	−1·33	−3·09	−1·22	+1·02	+0·28	+0·26	−6·57

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Central India—*concld.*	Rutlam	+2·46	−0·18	−0·02	+0·52	−0·21	−4·90	+2·05	−5·53	+7·07	−0·74	−0·17	+1·17	+1·72
	Indore	+0·01	−0·24	−0·05	−0·06	−0·37	−4·25	−0·16	−0·48	−0·78	+0·62	+0·05	+0·98	−3·73
	Bhopal (Sehore)	−0·05	+0·07	−0·14	−0·01	−0·30	−6·77	−5·36	−6·87	+1·06	−0·37	−0·38	+0·95	−14·17
	Goona	−0·44	+0·08	−0·18	−0·12	−0·40	−6·18	+16·53	−8·14	−3·33	−0·25	−0·34	−0·32	−3·49
	Morar	−0·30	0	−0·15	−0·10	−0·10	−2·89	+4·88	−8·10	+0·33	−0·25	−0·04	−0·36	−7·08
	Nowgong	−0·29	+0·46	−0·21	−0·10	−0·31	−6·13	+15·37	−9·11	−0·41	−0·84	+0·12	−0·48	−1·93
	Sutna	+0·02	−0·14	−0·38	−0·07	−0·36	−6·09	+0·52	−3·33	+1·16	−0·98	+0·83	−0·39	−9·21
	Nagode	−0·48	−0·25	−0·29	−0·14	−0·05	−5·23	+1·01	+1·95	+1·35	−1·85	+0·89	−0·47	−3·56
	Maihar	−0·21	+0·14	−0·28	−0·11	−0·20	−6·16	−1·28	−1·93	+1·38	−1·45	+1·04	−0·50	−9·56
	Rewah	+0·13	−0·37	−0·26	−0·24	+0·05	−7·36	+1·82	−8·88	−3·60	−1·72	+0·63	−0·38	−20·18
	Ramnagar	−0·03	+1·21	−0·27	−0·05	−0·32	−7·93	+0·09	−7·94	+5·54	−1·08	+1·79	−0·49	−9·46
	Sihawal (Bardi)	+0·23	+0·25	−0·60	−0·08	−0·34	−4·33	+7·75	−2·04	+0·78	−1·02	−0·48	−0·49	−0·37
	Tyonthar	+0·07	−0·43	−0·31	−0·08	−0·38	−5·65	+6·01	−5·88	+0·62	−1·88	−0·17	−0·49	−8·57
	Sohagpur	−0·57	−0·24	−0·45	+0·05	+0·04	−5·91	+5·14	+12·26	−0·71	−1·24	+0·20	−0·36	+8·21
United Provinces.	Chakrata	−3·14	−2·18	−0·40	+1·66	+1·88	−4·54	+4·73	−6·72	−0·05	+1·26	−0·26	−1·30	−9·06
	Mussooree	−2·93	−2·45	−0·77	+1·47	+1·26	−6·86	+0·73	−2·85	+7·96	+1·15	−0·42	−1·23	−4·94
	Srinagar	−2·31	−2·19	−0·78	+1·11	+1·52	−1·48	+4·61	−1·54	−1·23	+0·23	−0·25	−0·70	−3·01
	Pauri	−2·61	−2·50	−1·14	+1·66	+0·58	−0·96	+4·46	−5·07	−1·46	+0·12	−0·30	−0·75	−7·97
	Ranikhet	−2·52	−1·54	−1·06	+0·43	−1·26	−1·81	−2·35	−0·86	+0·78	−0·83	−0·28	−0·89	−12·19
	Almora	−2·10	−1·51	−1·13	+0·69	−0·58	−0·17	−0·91	+0·21	+0·33	−0·37	−0·21	−0·62	−6·10
	Pithoragarh	−2·14	−2·21	−1·23	−0·27	+0·07	−3·54	+3·15	−4·10	+0·82	+0·89	−0·17	−0·68	−9·40
	Naini Tal	−3·11	−1·93	−2·13	+0·25	−1·25	−10·26	+2·61	+12·07	−5·01	−0·61	−0·25	−1·15	−10·71
	Dehra Dun	−2·26	−1·71	−0·75	+0·97	−0·46	−5·39	−7·13	−4·98	+0·88	+0·48	−0·21	−0·68	−21·24
	Saharanpur	−1·47	−1·32	−0·81	+0·33	+0·58	+0·27	+1·32	+1·03	−2·71	−0·28	−0·22	−0·68	−3·96
	Roorkee	−1·85	−1·48	−0·71	+1·45	+0·36	+2·[illegible]2	−1·02	+3·75	−1·04	−0·50	−0·24	−0·52	+0·52
	Muzaffarnagar	−1·26	−0·21	−0·78	−0·34	−0·10	+1·26	+2·05	+9·96	−3·89	−0·34	−0·11	−0·42	+6·22
	Bijnor	−1·26	−1·13	−0·76	+0·07	+0·84	−0·23	−0·84	+5·77	−3·67	−0·01	−0·13	−0·38	−1·73
	Meerut	−1·05	−0·83	−0·59	−0·03	−0·14	+2·15	+1·80	+4·[illegible]3	−1·59	+0·74	−0·08	−0·40	+4·31
	Moradabad	−1·21	−0·66	−0·71	+0·27	−0·51	−2·34	+2·12	−2·40	−2·38	−0·48	−0·12	−0·40	−8·82
	Rudarpur	−1·38	−0·91	−0·81	−0·07	+0·74	−1·53	+4·41	−2·82	+3·47	+0·08	−0·08	−0·45	+0·65
	Pilibhit	−1·16	−1·18	−0·71	−0·25	−0·58	−1·28	+4·67	−6·04	+0·48	+1·01	−0·09	−0·47	−5·60
	Bulandshahr	−0·82	−0·90	−0·42	−0·15	−0·38	−1·39	+0·93	+4·78	−1·21	−0·02	−0·07	−0·44	−0·09
	Bareilly	−1·06	−0·71	−0·60	−0·11	−0·51	−3·46	+0·56	+0·65	+2·92	+0·01	−0·10	−0·31	−2·72
	Budaun	−0·88	−0·59	−0·44	+0·44	−0·31	−1·89	−4·54	−5·27	+0·10	−0·84	−0·10	−0·32	−14·64
	Shahjahanpur	−0·86	−0·74	−0·52	+0·58	−0·84	−3·89	+0·29	−4·76	+0·66	+0·12	−0·13	−0·30	−10·39
	Aligarh	−0·76	−0·49	−0·36	−0·17	−0·45	−0·49	+5·48	−3·43	−1·72	−1·44	−0·04	−0·35	−3·28

TABLE XXXI—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inch.	Inches.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inch.	Inch.	Inches.
United Provinces—*concld.*	Muttra	−0·53	−0·35	−0·18	−0·10	−0·52	−1·24	+1·18	−3·42	+1·12	−0·35	−0·06	−0·27	−4·72
	Agra	−0·53	−0·33	−0·25	−0·12	−0·59	−0·91	+1·01	−1·99	−0·10	−0·35	−0·06	−0·29	−4·51
	Etah	−0·54	−0·35	−0·46	+0·06	−0·21	−2·03	−0·01	−3·68	−1·12	−0·51	−0·05	−0·29	−9·19
	Mainpuri	−0·68	−0·37	−0·27	−0·13	−0·45	−3·20	−1·09	−1·52	+0·04	−0·78	−0·10	−0·37	−8·92
	Farrukhabad	−0·65	−0·39	−0·36	−0·09	−0·51	−2·83	+5·30	−5·07	+3·28	−0·94	−0·09	−0·33	−2·68
	Etawah	−0·53	−0·29	−0·37	−0·12	−0·43	−2·82	−0·71	−3·78	+4·99	−0·90	−0·08	−0·31	−5·35
	Cawnpore	−0·67	−0·32	−0·23	−0·12	+0·07	−3·39	−3·52	−7·02	+11·11	−1·18	−0·13	−0·24	−5·61
	Fatehpur	−0·17	−0·28	−0·26	−0·14	−0·35	−3·43	+3·24	−4·92	+3·31	−1·08	−0·17	−0·28	−4·53
	Jalaun (Orai)	−0·03	−0·07	−0·20	−0·07	−0·29	−2·82	+1·32	−6·36	+7·77	−0·64	−0·05	−0·26	−1·70
	Hamirpur	+0·18	−0·09	−0·21	−0·09	−0·27	−3·74	−1·73	−4·68	+7·34	−1·05	−0·17	−0·34	−4·85
	Banda	−0·14	−0·18	−0·06	−0·10	−0·35	−4·39	+2·26	−4·76	−2·07	−1·33	−0·15	−0·28	−11·55
	Allahabad	−0·29	−0·37	−0·38	−0·14	+0·35	−3·92	+6·48	−1·68	+2·91	−2·40	−0·19	−0·23	+0·21
	Basti	−0·73	−0·46	−0·31	−0·24	−0·16	−6·24	+9·10	−8·94	+1·84	−2·05	−0·05	−0·11	−8·35
	Gorakhpur	−0·73	−0·55	−0·22	−0·22	−0·62	−6·48	+10·31	−7·01	+0·56	+0·35	−0·17	−0·13	−4·91
	Azamgarh	−0·63	−0·41	−0·08	−0·10	+0·94	−4·13	+6·69	−1·46	+3·46	−0·04	−0·10	−0·14	+4·10
	Jaunpur	−0·61	−0·13	−0·28	−0·12	+0·09	−2·83	+4·99	−7·34	+5·15	−2·80	−0·14	−0·14	−4·16
	Benares	−0·27	−0·44	−0·33	−0·15	+0·07	−4·87	+1·95	−6·89	+1·09	−0·34	−0·04	−0·17	−10·39
	Mirzapur	+0·09	−0·64	−0·48	−0·14	+0·01	−3·88	+0·77	−5·35	+6·62	−2·16	−0·01	−0·18	−5·35
	Ballia	−0·65	−0·49	+0·10	−0·26	+1·21	−4·85	−2·23	+2·18	+8·35	−3·24	−0·14	−0·12	−0·14
	Dudhi	+0·85	+0·05	−0·41	−0·12	−0·16	−5·02	+6·73	−5·83	+4·96	−3·06	+0·04	−0·30	−2·27
	Robertsganj	+1·25	+0·05	−0·42	−0·21	−0·64	−5·43	+4·19	−6·33	+5·20	−1·83	+0·21	−0·27	−4·23
	Jhansi	+1·05	−0·12	−0·33	−0·12	−0·31	−3·28	+7·64	−7·40	+1·28	−0·41	−0·07	−0·27	−2·34
	Lalitpur	+0·22	−0·03	−0·31	−0·12	−0·51	−4·88	+8·98	−8·29	−0·89	−0·79	+0·21	−0·30	−6·71
Oudh	Kheri	−0·99	−0·77	−0·47	−0·17	−0·42	−5·12	−1·03	−5·13	−1·80	−0·78	−0·16	−0·38	−17·22
	Sitapur	−0·55	−0·52	−0·44	−0·27	−0·14	−4·08	+4·05	−7·27	+1·83	+0·08	−0·15	−0·32	−8·28
	Bahraich	−0·82	−0·73	−0·42	−0·14	−0·01	−5·43	+1·07	−0·55	+7·63	−1·04	−0·12	−0·39	−0·95
	Gonda	−0·71	−0·61	−0·05	−0·24	+1·32	−3·77	+10·15	−6·00	+3·99	+0·02	−0·10	−0·28	+3·72
	Hardoi	−0·68	−0·37	−0·58	−0·17	+0·25	−2·71	+8·57	−6·88	−0·31	−1·15	−0·12	−0·36	−4·51
	Nawabganj (Bara Banki).	−0·85	−0·37	−0·38	−0·13	+0·61	−4·40	+3·98	−5·21	−1·09	−1·03	−0·07	−0·46	−9·40
	Lucknow	−0·90	−0·45	−0·32	−0·11	−0·12	−4·17	+2·78	−4·79	+3·15	−1·30	−0·08	−0·44	−6·75
	Unao	−0·83	−0·14	−0·27	−0·10	−0·43	−4·09	−1·72	−8·17	+0·94	−1·32	−0·09	−0·37	−16·59
	Fyzabad	−0·73	−0·39	−0·48	−0·17	+0·14	−4·42	+10·51	−3·32	−2·35	−1·50	−0·08	−0·23	−3·02
	Sultanpur	−0·57	−0·41	−0·22	−0·21	−0·05	−5·34	−3·94	−7·66	+7·57	−1·76	−0·15	−0·22	−12·96
	Rae Bareli	−0·44	−0·26	−0·22	−0·09	−0·24	−4·60	+5·34	−7·41	+1·34	−1·34	−0·12	−0·23	−8·27
	Partabgarh	−0·46	−0·33	−0·22	−0·04	−0·20	−4·12	+7·81	−4·85	+6·93	−2·27	−0·21	−0·29	+1·75
Bengal	Motihari	−0·57	−0·37	+1·57	+0·03	+1·58	−3·83	+10·21	+3·24	+10·36	−2·56	−0·12	−0·13	+19·41

TABLE XXXI—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Bengal—*contd.*	Darbhanga	−0·65	−0·45	+1·86	+0·18	+1·10	−2·03	+2·45	−4·15	+8·01	−1·10	−0·07	−0·11	+5·04
	Siwan	−0·81	−0·57	+0·07	−0·21	+0·87	−6·03	+0·71	−4·96	+2·27	−2·60	−0·14	−0·11	−11·51
	Buxar	−0·79	−0·40	−0·28	+1·33	−0·60	−4·52	+2·58	−1·95	+3·76	−2·08	−0·36	−0·19	−3·80
	Chapra	−0·74	−0·42	+0·07	−0·02	−0·31	−3·59	−5·64	−3·41	+6·82	−2·62	−0·22	−0·09	−10·17
	Arrah	−0·88	−0·61	−0·08	+0·06	−0·18	−4·96	+2·25	−2·70	+0·15	−1·93	−0·21	−0·13	−9·22
	Patna (Bankipore)	−0·72	−0·43	−0·11	+0·42	−0·48	−5·71	−0·79	−0·64	+11·01	−1·25	−0·20	−0·14	+0·96
	Muzaffarpur	−0·79	−0·47	+0·99	−0·19	−1·22	−5·14	+3·73	−1·83	+6·60	−0·81	−0·12	−0·07	+0·68
	Barh	−0·65	−0·58	−0·08	+0·38	−1·07	−2·53	−0·46	−2·49	+4·44	−1·68	−0·18	−0·09	−4·99
	Sasaram	+0·55	−0·51	−0·14	+0·03	−0·80	−3·49	+15·98	−5·70	+1·44	−1·86	+0·08	−0·23	+5·35
	Gaya	−0·12	−0·59	−0·45	−0·12	−0·47	−4·86	+4·47	−6·04	+7·47	−2·25	+0·06	−0·17	−3·07
	Jamui	−0·75	−0·70	−0·34	−0·05	−1·01	−2·86	−4·47	0	+3·90	−2·17	−0·09	−0·07	−8·61
	Madhipura	−0·58	−0·66	+2·22	−0·02	+0·59	−2·85	−2·85	−4·35	+15·99	−2·26	−0·06	−0·05	+5·12
	Monghyr	−0·51	−0·62	+0·60	+0·75	−1·57	−3·92	−0·03	−4·24	+3·21	−1·66	−0·20	−0·07	−8·26
	Bhagalpur	−0·55	−0·68	+0·17	+1·10	−1·30	−3·40	+0·57	−4·44	+3·86	−2·57	−0·12	−0·07	−7·43
	Godda	−0·56	−0·63	−0·45	+1·94	−2·01	−3·90	+6·05	−6·29	+4·00	−1·88	−0·25	−0·08	−4·06
	Palamau	−0·20	−0·17	−0·59	−0·01	−1·04	−5·63	−2·71	−7·13	+7·32	−2·33	−0·28	−0·29	−13·06
	Hazaribagh	−0·29	−0·33	+0·06	−0·12	+1·93	−6·40	+0·52	−6·01	+4·53	−2·74	−0·25	−0·21	−9·31
	Ranchi	−0·69	−0·16	+0·10	−0·05	−0·12	−5·77	+3·32	−0·29	+3·21	−2·69	−0·31	−0·06	−3·51
	Lohardaga	−0·61	−0·34	−0·02	−0·51	−0·64	−5·35	+4·67	−3·46	−0·47	−1·96	+0·35	−0·40	−8·74
	Naya Dumka	−0·59	−0·70	+0·67	+0·85	−0·30	−5·73	+1·50	−3·95	+7·89	−1·93	+0·15	−0·16	−2·30
	Gobindpur	−0·52	−0·67	+0·22	+2·06	−0·76	−5·56	−0·50	−5·20	+2·62	−0·72	+0·07	−0·14	+9·10
	Purulia	−0·44	−0·59	+0·66	−0·36	+1·96	−5·75	−0·28	−1·77	+4·58	−2·84	+1·16	−0·07	−3·74
	Sirguja	−0·98	+0·01	−0·75	−0·30	+0·33	−8·30	+8·79	+8·68	+3·42	−2·30	+0·95	−0·22	+9·33
	Jushpore	−0·78	−0·56	−1·19	+0·09	−0·21	−6·25	+7·36	−1·12	−3·71	−3·41	−0·41	−0·30	−10·49
	Gangpur	−0·43	−1·27	−0·84	−0·61	−0·17	−8·47	+4·07	+2·58	−2·33	−2·68	−0·69	−0·38	−11·22
	Chaibassa	−0·51	−0·78	−1·06	+0·47	+4·36	−4·54	+7·40	−6·35	+1·15	−2·65	−0·22	+0·12	−2·61
	Barreepudda	−0·16	−0·86	+1·61	+5·67	−0·92	−2·06	+6·04	−3·41	−1·84	−3·07	−0·81	+0·61	+0·80
	Keonjhar	+0·17	−0·56	−0·57	+3·39	−0·14	+0·32	+4·93	+4·44	−1·78	−1·48	−0·83	+1·29	+9·20
	Jellasore	−0·44	−1·01	+0·30	+0·80	+0·66	−4·35	+7·54	+0·73	−2·44	−4·23	−0·65	+0·50	−2·59
	Balasore	−0·56	−0·21	+1·40	+2·14	+0·67	−7·78	+5·96	−2·49	−8·17	−4·74	−1·15	+0·76	−15·17
	Bhadrak	−0·31	−1·27	+0·68	+0·80	−2·73	−2·31	+7·02	−6·25	−6·34	−3·91	−0·78	+1·13	−14·27
	Talcher	−0·18	−0·75	−1·11	+3·34	−0·12	−4·19	+9·57	−1·71	−2·97	−2·78	−1·06	+0·91	−1·05
	Narsinghpur	+0·10	−0·41	+0·33	+1·78	+3·54	−3·51	−7·78	−3·36	−6·19	−0·18	−0·25	+1·15	−14·78
	Angul	−0·18	−0·77	−0·15	+1·16	−1·39	−5·84	+6·31	−1·93	−2·59	−4·32	−1·22	+1·26	−10·66
	Dhenkanal	−0·24	−0·64	−1·33	+3·73	+1·93	−2·65	+10·92	+1·21	−4·40	−3·80	−1·15	+1·14	+4·72
	Bispara	−0·27	−0·32	−0·64	+4·65	−0·89	−7·59	−1·04	+5·65	−4·24	−2·27	−0·96	+0·75	−7·17

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Bengal—*contd.*	Kunjabangar	−0·11	−0·29	+1·07	+1·61	−0·28	−5·54	+1·91	+6·03	−3·03	−4·91	−1·11	+1·95	−2·70
	Banki (Charchika)	−0·13	−0·37	−1·25	+1·60	−0·54	−2·42	+15·54	−1·66	−4·00	−4·54	−1·42	+2·00	+2·81
	Cuttack	+0·16	−0·49	−1·23	+2·09	−1·02	−2·76	+13·73	+2·37	−5·20	−4·46	−1·36	+2·22	+4·05
	Baramba	+0·23	−0·34	−0·30	+4·44	+0·07	−4·92	+8·08	−1·15	−0·27	−3·63	−1·12	+1·67	+2·74
	False Point	−0·46	−0·90	−0·50	+0·01	−1·03	−6·32	+1·93	+1·13	−3·50	−8·56	−2·47	+1·37	−19·30
	Puri	−0·09	−0·99	−0·61	+0·07?	−2·78?	−3·60	+9·58	+5·68	+1·16	−7·65	−2·43	+2·32	+0·68?
	Darjeeling	−0·76	−1·05	+1·27	−0·81	−2·29	−1·09	+4·08	+1·22	+28·50	−0·20	+0·31	−0·20	+28·98
	Mongpoo	−0·79	−0·71	+1·07	+1·19	−2·32	−2·79	+8·30	+12·12	+34·36	−2·55	−0·04	−1·18	+47·66
	Pedong	−0·41	−0·35	+0·68	+2·52	+1·26	−4·78	−1·48	−7·86	+18·65	+1·85	+1·05	−0·51	+8·62
	Buxa	−1·10	−0·99	+4·15	+2·09	−1·25	+2·22	−5·53	+16·74	+22·87	−5·57	+1·45	−0·55	+34·53
	Jalpaiguri	−0·48	−0·39	+1·40	+0·64	−0·47	+1·90	−1·17	−5·84	+34·13	−1·47	−0·14	−0·07	+28·04
	Cooch Behar	−0·43	−0·42	+3·26	+0·87	+1·54	−4·51	+13·21	+8·21	+29·64	−1·84	−0·14	−0·08	+49·31
	Kishanganj	−0·63	−0·47	+2·32	−0·32	+3·05	−0·45	+11·76	−0·28	+5·31	−2·24	−0·05	−0·09	+17·71
	Purnea	−0·47	−0·56	+2·09	+0·09	+0·10	−1·45	−5·71	−3·10	−0·62	−1·24	−0·07	−0·10	−11·04
	Rangpore	−0·49	−0·43	+3·75	+1·87	+4·29	−8·38	+0·50	+0·78	+14·02	−2·28	−0·24	−0·08	+13·31
	Dinajpore	−0·29	−0·59	+2·41	+1·60	−0·83	−1·99	+8·51	−3·18	+7·51	−2·45	−0·16	−0·08	+10·46
	Malda	−0·68	−0·76	+0·44	+1·28	+0·33	−1·24	−0·79	−1·79	−1·34	+0·15	−0·22	−0·25	−4·87
	Bogra	−0·44	−0·99	+0·69	+0·32	+2·57	+0·49	−1·14	+6·71	−0·69	+0·91	−0·82	−0·09	+7·52
	Rampur Boalia	−0·34	−0·84	+0·41	+3·21	+2·15	+0·51	+5·09	+2·78	+8·67	−1·82	−0·19	−0·06	+19·57
	Pubna	−0·38	−1·07	+0·50	+6·39	+2·75	+7·13	−2·71	−2·22	+0·93	−2·28	−0·47	−0·07	+8·50
	Suri	−0·44	−0·91	+2·57	+3·96	−0·86	−9·13	+4·55	+1·39	+1·62	+0·63	+0·76	−0·12	+5·02
	Bankura	−0·33	−0·66	+0·24	+1·00	+3·33	−6·39	+0·75	−6·27	+0·23	−2·91	−0·06	−0·02	−11·09
	Burdwan	−0·38	−0·82	−0·10	+3·40	+0·94	−3·23	−2·73	−3·84	−1·68	−2·43	−0·55	−0·05	−11·47
	Hooghly	−0·38	−1·14	−0·42	+5·80	+1·88	−1·06	+0·50	−2·44	−1·17	−2·03	+0·91	+0·11	+0·56
	Howrah	−0·41	−1·10	−0·74	+1·85	+3·74	−7·06	+2·36	+0·81	−3·22	−2·77	−0·22	+0·27	−6·49
	Midnapore	−0·55	−0·91	−0·67	+4·44	+3·09	−5·02	+1·00	+1·05	−2·53	−3·73	+0·51	+0·65	−2·67
	Tamluk	−0·26	−1·09	−1·11	+2·72	+0·21	−6·24	+4·49	+1·32	+1·01	−3·82	−0·07	+0·72	−2·12
	Berhampore	−0·47	−0·92	+1·79	+2·75	−2·11	−4·25	+5·76	+2·59	+5·60	+0·27	−0·37	−0·10	+10·54
	Krishnagar	−0·43	−1·10	+0·71	+0·25	−0·42	−4·24	−0·86	−2·00	+0·01	−2·19	−0·74	−0·05	−11·06
	Faridpur	−0·48	−1·32	+0·97	+5·02	+1·01	+8·01	+1·27	+2·07	+1·54	−2·11	−0·82	−0·06	+15·10
	Jessore	−0·48	−1·01	+0·32	+3·99	+5·45	−6·13	+3·63	−4·60	−2·14	−1·25	−1·10	−0·03	−3·35
	Basirhat	−0·36	−1·01	+0·66	+2·13	+1·85	−3·40	−1·29	−3·12	−1·91	−2·85	+1·05	+0·09	−8·16
	Khulna	−0·45	−1·31	+0·70	+5·33	+3·28	−2·31	+3·94	−1·63	+1·80	−3·50	−0·42	−0·02	+5·41
	Barisal	−0·54	−1·06	−0·57	+8·89	+8·64	+13·61	+9·35	−0·51	+8·41	−0·85	−0·62	−0·19	+44·56
	Alipore (Obsy.)	−0·29	−1·00	+0·35	+4·57	+3·59	−5·57	+3·21	+1·32	−3·42	−1·09	−0·57	+0·35	+1·45
	Saugor Island	−0·28	−1·07	+0·14	+1·31	−0·75	−4·92	+7·21	−5·20	+0·33	−5·26	−1·30	+1·28	−8·51

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Bengal—*concld.*	Mymensingh	−0·43	−1·20	−1·12	+6·12	+4·37	+9·95	+0·35	+4·40	−2·93	−1·91	−0·76	−0·09	+16·75
	Kishorganj	−0·57	−0·94	−1·35	+7·08	+2·79	+3·18	−1·05	−3·39	−1·93	+1·86	−0·69	−0·22	+4·77
	Atia (Tangail)	−0·43	−1·05	−0·36	+4·48	+3·97	+0·23	+2·91	−0·81	+0·49	−3·48	−0·50	−0·08	+7·75
	Dacca	−0·36	−1·07	+0·23	+15·60	+3·21	+5·58	−4·68	−2·36	+2·25	−4·01	−0·83	−0·13	+13·43
	Comilla	−0·54	−0·95	−0·95	+13·80	+0·56	+2·03	−5·99	−0·31	−1·67	+0·71	−1·03	−0·20	+5·46
	Agartalla	−0·57	−1·48	−1·91	+6·38	−2·02	+8·62	−1·47	−2·73	−5·63	−0·71	−1·05	−0·35	−2·92
	Noakhali	−0·44	−1·00	−0·94	+11·03	+6·01	+1·72	+18·00	+8·26	−1·31	−3·03	−1·61	−0·14	+36·55
	Demagiri	−0·41	−1·35	−3·49	+7·47	−2·17	+6·08	−1·91	−8·44	−0·75	−2·45	−1·53	−0·64	−9·59
	Rangamatia Hills	−0·43	−1·15	−2·59	+7·01	−4·37	+9·47	+2·76	−6·97	−4·62	−1·56	−1·53	−0·48	−4·48
	Chittagong	−0·41	−1·16	−1·36	+8·77	+2·77	+6·46	+14·24	−3·53	−3·88	−0·39	−1·49	−0·58	+19·44
	Cox's Bazar	−0·48	−0·41	−0·45	+9·05	+4·97	−0·05	+11·60	−8·74	+8·51	−0·10	−1·97	−0·29	+20·64
Assam.	Sylhet	−0·19	−1·46	−3·45	+8·12	+4·31	+9·77	−3·58	+1·53	+3·37	−3·14	−1·09	−0·27	+13·92
	Silchar	−0·61	−1·93	−2·09	+8·14	−3·95	+7·23	−5·97	+1·24	−3·21	−0·28	−0·39	−0·54	−2·36
	Chera Poonjee	−0·69	−2·16	−3·34	+5·49	−24·01	+31·39	+13·70	+7·83	−7·88	−12·09	−1·49	−0·23	+6·52
	Tura	−0·54	−0·79	+1·26	+5·26	+4·91	+12·81	−0·84	+8·98	+5·93	−2·54	+0·15	−0·11	+34·48
	Shillong	−0·15	−0·81	+1·97	+2·36	−2·10	+6·71	−3·13	+8·28	−3·93	+0·53	−0·93	−0·15	+8·66
	Dhubri	−0·34	−0·55	+1·76	+1·00	+2·63	+0·36	−0·02	+11·60	+10·77	−2·05	−0·14	−0·14	+24·88
	Goalpara	−0·43	−0·61	+1·77	+7·87	−2·31	−0·86	+4·46	+4·70	+8·43	−1·93	−0·21	−0·21	+20·67
	Kulsi	−0·44	−0·37	+3·09	+5·38	+2·44	+4·05	−1·29	−0·68	+5·82	−1·97	+0·17	−0·20	+15·00
	Gauhati	−0·60	−0·90	+3·51	+6·67	−2·90	+0·81	−3·98	−0·44	−049	−1·82	−0·52	−0·24	0
	Nowgong	−0·63	−0·81	+2·20	+6·72	−5·51	−0·08	+5·06	+5·89	+7·31	−0·66	−0·43	−0·25	+18·80
	Tezpur	−0·45	−0·38	−0·03	+4·04	−2·66	+1·60	+2·27	+3·88	−1·26	−1·58	−0·69	−0·50	+4·24
	Chardner	+0·52	−0·40	−0·28	+2·11	−3·17	+9·39	−1·12	+2·63	−4·04	−2·24	+1·08	−0·81	+3·67
	Sibsagar	−0·71	−0·84	−1·46	+2·70	−4·87	−5·96	−1·65	+4·18	+2·95	−1·16	−0·62	−0·59	+1·97
	Dibrugarh	−0·24	−0·97	−3·30	+1·88	−2·16	−1·60	+8·77	+1·48	+15·85	−3·25	−0·71	−0·81	+14·94
	Kohima	−0·58	−1·15	−0·56	+3·42	−2·15	−4·58	−1·77	+2·34	−2·66	+1·54	−0·31	−0·38	−6·85
Central Provinces.	Saugor	−0·27	−0·23	−0·22	−0·10	−0·49	−6·68	−0·78	−6·71	+1·18	−0·85	+4·05	−0·53	−11·63
	Damoh	−0·20	−0·26	−0·20	+0·40	−0·16	−5·31	+4·86	−8·43	+4·93	+0·03	+4·59	−0·47	−0·22
	Jubbulpore	−0·45	−0·33	−0·48	0	−0·39	−7·76	−0·71	−7·46	+0·65	−1·45	+0·39	−0·25	−18·24
	Narsinghpur	−0·16	−0·24	−0·27	−0·18	−0·32	−6·48	−3·53	−3·04	+5·87	+1·15	+0·14	−0·26	−7·32
	Hoshangabad	−0·13	−0·01	−0·21	+0·07	−0·01	−5·40	−6·26	−2·87	−2·70	+0·60	+3·18	+1·15	−12·59
	Khandwa	+0·16	−0·19	−0·09	+0·03	+0·19	−5·19	+7·27	−1·74	−1·15	+0·37	+2·40	−0·10	+1·96
	Badnur (Betul)	−0·39	−0·30	−0·56	−0·29	−0·94	−5·11	+0·71	−0·43	−2·94	+1·16	+0·92	+0·26	−7·26
	Pachmarhi	−0·12	−0·36	−0·32	−0·16	−0·42	−8·72	−9·30	−3·90	−5·87	+0·63	+1·24	+1·66	−25·58
	Chhindwara	−0·23	−0·35	−0·44	−0·20	−0·47	−6·72	+0·36	−2·73	−3·80	−0·98	+0·02	+0·15	−15·39
	Seoni	−0·29	−0·88	−0·51	−0·31	−0·68	−7·79	−1·59	−4·61	−3·88	−1·08	−00·8	+0·28	−21·49

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Central Provinces—*concld.*	Balaghat	−0·40	−0·62	−0·38	+0·19	−0·72	−10·30	−7·00	−10·56	−2·52	−1·69	−0·44	+0·33	−34·11
	Mandla	−0·15	−0·47	−0·73	−0·32	−0·46	−6·76	−6·37	−3·92	+14·65	−1·12	−0·20	+0·03	−5·82
	Bilaspur	−0·50	−0·16	−0·73	+0·35	−0·50	−7·06	+1·79	−2·01	+1·58	+1·75	−0·54	−0·16	−9·72
	Sarangarh	−0·21	−0·52	−0·96	+1·21	−0·68	−7·26	−1·37	−2·45	−1·75	−2·93	−0·53	+0·33	−16·85
	Raigarh	−0·22	−0·42	−0·55	+0·76	−0·23	−6·54	+12·20	−8·31	−3·82	−2·37	−0·65	+0·25	−9·90
	Sambalpur	−0·53	−0·37	−0·85	+0·77	−1·31	−10·79	+5·17	+3·03	−4·73	−1·11	−0·42	+0·69	−10·65
	Raipur	−0·30	−0·33	−0·59	+0·16	−0·56	−8·65	−6·02	−3·21	−0·02	−1·90	−0·57	−0·16	−22·15
	Dhamtari	−0·19	−0·40	−0·44	+0·06	−1·13	−8·63	−3·97	+0·58	−4·82	−1·52	−0·36	+0·06	−20·76
	Bhandara	−0·71	−0·62	−0·58	−0·53	−0·82	−6·87	−6·84	−3·64	−5·23	−1·16	−0·64	+0·15	−27·49
	Nagpur	−0·58	−0·42	−0·57	−0·42	−0·60	−6·66	−3·63	−0·36	−4·02	−1·12	−0·05	+1·05	−17·38
	Arvi	−0·54	−0·22	−0·44	−0·17	−0·55	−2·13	−2·29	+0·17	−3·82	−0·69	−0·12	+0·24	−10·56
	Wardha	−0·34	−0·38	−0·41	+0·01	−0·58	−4·59	+1·32	+0·44	−1·99	−1·81	−0·07	+0·27	−8·13
	Brahmapuri	−0·39	−0·35	−0·84	−0·44	−0·59	−7·07	−3·54	−0·65	−1·24	−1·90	−0·32	−0·26	−17·59
	Chanda	−0·25	−0·70	−1·24	−0·61	−1·36	−4·72	−5·37	−8·36	+0·83	−1·94	−0·38	−0·04	−24·04
	Sironcha	−0·27	−0·38	−0·60	+0·06	−0·21	−6·52	−3·52	−4·42	+0·33	−2·23	−0·65	+1·06	−17·37
	Baster (Jagadalpore).	−0·11	−0·24	−0·81	+3·05	+1·96	−8·18	+3·77	+2·04	+1·05	−2·01	−0·69	+0·25	+0·08
Berar	Chikalda	−0·25	−0·25	−0·45	+0·24	−0·64	−7·13	−1·35	−9·36	−5·00	+1·57	+1·15	+0·86	−20·59
	Ellichpur	−0·14	−0·23	−0·36	+0·35	−0·36	−3·38	−1·42	−1·44	−1·75	−0·15	+0·45	+0·59	−7·82
	Amraoti	−0·46	−0·22	−0·34	−0·12	−0·28	−5·53	+3·33	+0·22	−3·05	+1·59	+0·18	+0·14	−4·54
	Akola	−0·29	−0·18	−0·43	−0·09	−0·31	−4·65	+2·68	+1·57	−2·84	−0·64	−0·17	+0·53	−3·82
	Buldana	−0·20	−0·22	−0·25	+0·06	−0·33	−3·92	−1·17	−1·11	−4·84	+1·56	+1·69	+3·04	−5·69
	Basim	−0·30	−0·21	−0·27	−0·34	−0·48	−5·65	−4·38	+0·28	−2·91	+0·51	+1·55	+2·03	−10·15
	Yeotmal	−0·27	−0·24	−0·50	−0·27	−0·71	−4·37	+2·78	+3·17	−3·76	−1·28	+0·81	+1·14	−3·50
	Wun	−0·29	−0·23	−0·86	−0·17	−0·41	−4·84	−3·51	−4·15	+5·01	+0·31	−0·09	+0·18	−9·05
Bombay	Dhulia	+0·36	−0·06	−0·04	−0·07	−0·27	−0·72	−0·19	+0·16	+0·02	+0·16	+0·11	−0·10	−0·64
	Nasik	+0·15	−0·06	−0·03	−0·11	−0·61	−3·79	+3·24	−1·46	+2·76	−2·22	+0·45	+2·70	+1·02
	Igatpuri	−0·14	−0·09	−0·03	+0·13	−0·75	−14·84	−3·52	−3·55	+5·89	−2·68	+1·26	+1·54	−16·48
	Malegaon	+0·55	−0·11	−0·04	−0·19	−0·67	−1·60	+1·09	−0·83	−1·03	−1·11	+1·97	+0·59	−1·38
	Ahmednagar	−0·10	−0·12	−0·15	−0·40	−0·91	−1·65	+0·67	−1·92	+10·26	−1·68	+0·12	−1·53	+3·65
	Poona	−0·08	−0·05	−0·13	−0·58	−1·36	−1·34	+0·08	−0·14	−1·76	−0·48	−0·34	+1·82	−4·36
	Lonavla	−0·04	−0·04	−0·06	−0·23	−0·65	−19·13	−8·23	−7·82	+9·06	−0·98	+2·08	+2·63	−23·41
	Satara	−0·22	−0·10	−0·10	−0·93	+0·65	−2·16	+1·62	−4·55	−1·20	−0·22	0	+3·26	−3·93
	Mahabaleshvar	−0·31	−0·05	−0·30	−1·26	−0·16	−21·87	−7·14	−24·22	+5·49	+1·29	+1·91	+3·31	−43·31
	Sholapur	−0·06	−0·08	−0·29	−0·23	−0·62	+0·43	−3·62	−3·30	+6·05	−0·52	+0·07	+3·84	+1·67
	Kolhapur	−0·04	−0·09	−0·14	−0·76	−1·50	+0·05	−0·04	−3·15	−1·54	+1·38	−0·05	+3·28	−2·61
	Belgaum	−0·06	−0·03	−0·30	−1·73	−0·78	−1·19	+0·58	−5·81	−0·19	+4·00	+1·21	+7·36	+3·06

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inch.	Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Bombay—concld.	Gokok	−0·07	−0·01	−0·41	−0·17	+3·25	+0·01	+0·36	−1·33	−1·76	+3·77	+1·69	+3·57	+8·90
	Dharwar	−0·11	−0·03	−0·24	−0·47	+1·44	−0·45	+1·00	−3·89	−2·22	+0·14	+0·97	+9·35	+5·49
	Hubli	−0·09	−0·01	−0·32	−1·69	+2·32	+0·03	−0·22	−2·82	−1·76	−1·94	+1·20	+5·19	−0·11
	Nargund	−0·17	−0·09	−0·28	+1·80	−0·06	+0·08	−1·08	−2·23	−1·81	−1·21	−0·31	+2·67	−2·69
	Mundargi	−0·19	0	−0·13	−0·59	+2·14	+1·79	−0·86	−0·93	−1·12	+5·31	−0·63	+3·81	+8·66
	Kalghatgi	−0·12	0	−0·34	+0·03	−0·84	+0·56	+1·93	−2·08	+0·69	+6·59	−0·03	+4·09	+9·48
	Bijapore	−0·05	−0·05	+0·11	−0·81	+0·63	+1·04	−1·89	−2·01	−0·95	−0·93	−1·05	+2·76	−3·20
	Honavar	−0·16	−0·01	−0·10	−0·60	−2·00	−8·93	+18·65	−2·50	+20·15	+1·78	+0·23	+5·56	+32·07
	Karwar	−0·12	−0·01	−0·04	−0·44	−3·89	+3·26	+21·78	−4·59	+12·84	+0·75	−0·60	+3·10	+32·96
	Goa	−0·19	0	−0·02	−0·33	−1·24	+4·10	+10·51	−6·46	+18·65	−2·41	+3·72	+2·64	+28·87
	Vengurla	−0·19	−0·02	−0·05	−0·28	−0·70	−1·38	+12·28	−9·29	+9·59	−0·54	+2·30	+4·28	+15·80
	Ratnagiri	−0·60	−0·02	−0·05	−0·15	−1·26	−10·28	−1·74	−11·20	+14·02	+0·66	+0·59	+1·83	−7·89
	Colaba (Obsy.)	−0·12	−0·02	−0·01	−0·05	−0·55	−10·79	−10·02	+3·52	+16·70	−0·98	−0·46	+9·76	−2·02
	Byculla (J. J. Hospital.)	−0·14	−0·03	−0·01	−0·03	−0·39	−10·75	−15·01	+0·56	+15·29	−0·31	−0·19	+1·35	−9·66
	Thana	−0·17	−0·06	−0·06	−0·01	−0·36	−17·43	−15·63	−0·33	+14·01	+0·60	+0·85	+0·63	−17·96
	Matheran	−0·08	−0·03	−0·01	−0·07	−0·70	−28·10	−25·20	−6·71	+12·75	−0·20	−0·11	+1·64	−46·82
	Surat	+0·47	−0·07	0	−0·01	−0·15	−7·87	+9·79	+3·33	+8·00	−1·29	−0·15	+0·81	+12·86
	Broach	+0·23	−0·06	−0·01	0	−0·12	−6·12	+1·38	+7·24	+7·91	−1·36	−0·16	+0·43	+9·36
	Kaira	−0·03	−0·15	−0·02	−0·05	−0·30	−3·96	−9·09	+2·75	+10·33	−0·50	−1·31	+0·09	−1·24
	Bariya	+0·25	−0·25	0	−0·03	−0·27	−4·98	−10·16	+1·53	+3·08	−0·91	−0·17	−0·11	−12·02
	Godhra	+0·30	−0·14	−0·01	−0·02	−0·40	−5·31	−8·28	+0·20	+9·15	−0·90	−0·15	+0·56	−5·00
	Dohad	+0·95	−0·20	−0·01	−0·01	−0·46	−3·66	+0·08	+1·42	+4·71	−0·60	−0·14	+0·67	+2·75
	Ahmedabad	−0·02	−0·10	−0·01	−0·03	−0·11	−3·87	−7·94	+1·43	+5·88	−0·55	−0·19	+0·05	−3·46
	Idar	−0·04	−0·13	−0·03	−0·02	−0·24	−3·95	−10·70	+0·89	+3·03	−0·26	−0·22	−0·07	−11·74
	Deesa	−0·14	−0·14	−0·08	−0·05	−0·17	−1·61	−8·39	−2·80	+3·30	−0·38	−0·14	−0·05	−10·85
	Wadhwan	−0·05	−0·07	−0·04	+0·14	−0·19	−2·55	−6·34	+6·68	+4·04	−0·55	−0·42	+0·10	+0·75
	Palanpur	−0·10	−0·18	−0·06	+0·10	−0·49	−2·40	−8·66	−0·42	+3·13	−0·45	−0·10	−0·13	−9·74
	Rajkot	−0·05	−0·10	−0·01	−0·01	−0·31	−3·14	−9·98	+3·70	+9·86	−0·30	−0·33	+0·02	−2·65
	Songad	−0·03	−0·08	−0·05	−0·02	−0·18	−3·20	−3·83	+5·78	+6·47	−1·51	−0·21	+0·72	+3·86
	Jetalsar	−0·05	−0·09	−0·04	−0·95	−0·20	−5·19	−6·85	+1·33	+2·40	−1·18	−0·49	−0·04	−10·45
Hyderabad.	Aurangabad (Cantt.)	+0·04	−0·10	−0·07	+0·99	−0·75	−4·62	−3·14	−0·39	+1·26	+2·23	+1·38	+2·27	−0·90
	Hingoli	−0·36	−0·26	−0·26	−0·52	−0·68	−3·88	−4·65	+4·55	−1·88	−0·28	+1·82	+1·35	−5·05
	Parbhani	−0·06	−0·05	−0·22	−0·35	−0·52	+0·34	+0·61	+0·08	+4·78	+0·71	−0·62	+0·62	+5·32
	Nandair (Nanded)	−0·11	−0·23	−0·46	−0·52	−0·64	−3·51	−1·11	−4·22	−3·38	−0·63	+1·18	+1·36	−12·27
	Bheer (Bid.)	−0·10	−0·05	−0·21	−0·20	−0·59	−4·44	−4·04	−2·87	+2·98	−0·79	+4·40	+1·14	−4·77
	Mominabad	−0·18	−0·15	−0·39	−0·47	−0·56	−0·98	−3·65	−1·74	+1·34	−0·02	+0·13	+0·68	−5·99

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

PROVINCE.	STATION.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	TOTAL.
		Inch.	Inch.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
HYDERABAD—*concld.*	Indur (Indur)	−0·05	−0·13	−0·48	−0.30	−0·30	−2·94	−2·14	+3·41	−2·52	−0·94	−0·62	+0·09	−6·92
	Yelgandal) Karimnagar.	−0·21	−0·21	−0·20	−0·08	+0·50	+0·71	−0·85	+0·71	−3·87	−2·04	+0·74	+1·03	−3·77
	(Medak) Kandi.	−0·05	−0·18	−0·47	−0·09	−0·46	−0·34	−5·24	+1·05	+4·91	+1·28	+1·78	+0·05	+2·24
	(Ibrahimpatan) Shumsabad.	−0·06	−0·17	−0·49	+1·75	−0·39	−1·79	−4·57	+1·89	+0·59	+1·99	+1·62	+0·03	+0·40
	Sundanully .	−0·02	−0·35	−0·49	+0·68	+0·12	+1·90	−4·13	+0·14	−5·36	+1·97	−0·16	+0·17	−5·53
	(Naldurg) Dharaseo.	−0·02	−0·05	−0·20	+0·60	−1·02	−4·40	−3·11	−4·57	+3·72	−0·82	−0·35	+2·33	−7·89
	Bidar (Bidar) .	−0·01	−0·18	−0·50	−0·47	−0·60	−3·23	−7·49	−1·85	−0·69	+0·96	−0·73	+0·53	−14·26
	Gulbarga (Gulbarga.	−0·07	−0·20	−0·29	+0·09	−0·91	−0·65	−3·98	−1·33	+4·42	−0·10	+0·93	+0·35	−1·73
	Bolaram .	−0·08	−0·19	−0·42	−0·39	−0·68	−2·63	−5·26	−1·96	+5·19	−0·14	−0·27	−0·20	−7·03
	Secunderabad .	−0·21	−0·23	−0·72	−0·37	−0·40	−2·78	−4·50	−1·37	+5·54	+0·52	+0·59	+0·55	−2·88
	Hyderabad (Residency).	−0·09	−0·09	−0·50	−0·11	−0·53	−2·16	−4·02	−1·65	+2·99	0	−0·65	+0·44	−6·77
	Zanawada (Hyderabad).	−0·06	−0·53	−0·61	−0·34	−0·85	+0·74	−5·02	+2·11	+1·79	+0·51	−0·68	+0·14	−2·80
	(Nalgunda) Bhongir.	−0·13	−0·08	−0·41	+2·89	−0·82	+0·01	−2·40	−0·78	−0·26	−0·07	+1·41	−0·08	−0·72
	Khamam (Hanumkonda) (Warangal).	−0·23	−0·22	−0·78	+0·26	−0·05	−2·62	−3·50	−2·88	−1·05	−0·56	+0·56	+0·08	−10·96
	Sirpur Tandur .	−0·04	−0·41	−0·37	−0·27	−0·46	−5·34	−3·55	−4·15	+0·81	−1·64	−0·09	−0·20	−15·71
	(Mahbubnagar) Palmoor.	−0·02	−0·10	−0·41	+0·09	−0·56	+3·09	−5·41	+1·96	−4·18	−0·63	+1·45	+0·40	−4·32
	Raichur . .	−0·02	−0·07	−0·30	+0·60	−0·82	−1·02	−4·20	−2·04	+7·45	−1·67	−0·08	−0·02	−2·49
	Raichur (Cantt.)	0	−0·15	+0·01	−0·14	−1·41	−0·54	−3·89	−1·99	+3·23	+0·08	+0·11	0	−4·69
MADRAS.	Rambha . .	−0·18	−0·80	−0·93	+1·68	−0·54	−4·10	+6·78	+11·69	−4·15	−8·81	−2·21	+1·10	−0·47
	Gopalpur . .	+0·28	−0·47	−0·62	+0·29	−1·74	−4·48	+4·66	+1·34	−2·11	−8·44	−3·97	+0·15	−15·11
	Aska . .	+0·10	−0·61	−1·35	+3·09	−1·54	−0·91	+4·67	+7·36	−5·08	−5·48	−1·48	+0·33	−0·90
	Vizianagram .	−0·12	−0·46	−0·96	−0·48	−0·64	−0·71	−0·09	+3·63	+3·05	−4·37	−1·27	+0·07	−3·25
	Bimlipatam .	−0·04	−0·46	−0·22	−0·12	−0·95	−2·41	−0·31	+1·27	+5·26	−0·62	−1·33	+0·05	+0·12
	Rayaghadda	−0·02	−0·40	−0·49	+3·28	−0·92	−3·35	−2·60	+3·03	+1·34	−2·50	−0·78	+0·50	−2·91
	Nourangapur .	−0·11	−0·29	−0·45	+3·85	−0·91	−5·27	+1·33	−3·16	+3·14	−2·12	+1·50	−0·79	−1·70
	Gunipore . .	+0·03	−0·53	−0·58	+4·66	−0·34	−1·88	−2·37	−1·12	−1·57	−3·87	−1·11	+1·38	−7·30
	Jeypore . .	−0·06	−0·28	−0·71	+7·79	−1·51	−8·76	−1·11	−2·10	+3·65	−2·60	+0·33	+0·46	−4·80
	Koraput . .	−0·05	−0·23	−0·76	+3·34	−0·62	−7·44	−0·34	−3·44	+0·99	−2·51	+0·30	+0·61	−10·13
	Malkanagiri .	−0·01	−0·12	−0·37	+2·08	−1·37	−6·73	−0·80	−1·90	+8·12	−2·23	+1·63	+0·36	−1·32
	Narsapatnam .	−0·23	−0·45	+1·14	+1·44	+0·60	−2·99	+1·68	+2·44	−4·45	+1·33	−2·03	−0·72	−2·24
	Waltair . .	−0·26	−0·25	−0·35	−0·56	−1·97	−1·85	−1·64	+1·48	−0·40	−1·09	−3·44	+0·08	−10·25
	Cocanada . .	−0·17	−0·33	−0·32	−0·51	−0·88	−3·19	+3·06	+0·12	+0·28	+8·89	−0·46	+0·23	+6·72
	Rajahmundry .	−0·14	−0·25	−0·32	−0·91	−2·35	−3·75	+6·36	+5·97	+1·50	+4·54	−0·62	−0·15	+9·85
	Ellore . .	−0·16	−0·17	−0·37	−0·16	−1·37	−2·97	+2·71	−1·18	+4·75	+4·82	−1·48	+0·02	+4·44
	Masulipatam .	−0·17	−0·16	−0·26	−0·22	−1·18	−2·08	+0·34	+1·18	+0·64	+11·70	−0·14	+3·08	+11·45
	Guntur . .	−0·24	−0·19	−0·64	−0·53	−0·56	−0·76	−1·48	−0·31	+3·35	+3·75	−0·33	+2·57	+4·81

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Iches	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
MADRAS—*contd.*	Vinukonda	−0·19	−0·09	+2·17	+0·66	−1·14	−1·33	−0·46	+0·44	+0·21	+1·62	−1·53	+0·75	+1·11
	Ongole	−0·18	−0·09	−0·21	+1·29	−0·95	−0·55	−1·62	+5·23	−0·04	+2·61	+0·56	+1·59	+7·64
	Nellore	−0·46	−0·09	−0·18	−0·26	−1·01	+0·29	+1·65	+1·18	+4·60	+4·63	+6·31	+9·41	+26·07
	Udayagiri	+0·01	−0·21	−0·21	−0·13	−0·84	−0·12	−1·03	+1·05	−0·98	+11·04	−3·67	+1·33	+6·21
	Tada	−0·52	−0·48	−0·18	−0·27	−1·59	+0·26	−0·12	−0·22	+3·08	+6·57	+5·97	+0·48	+12·98
	Kurnool	−0·05	−0·03	−0·43	−0·23	−1·06	−1·39	−4·40	−1·90	+0·61	−0·46	+0·44	−0·11	−8·99
	Nandyal	−0·07	−0·04	−0·16	+0·64	−1·00	−0·02	−4·57	−2·95	+4·34	−0·44	−0·83	+0·24	−4·86
	Bellary	−0·10	−0·03	−0·42	−0·28	+2·32	+2·50	−0·93	−1·05	−0·63	+1·29	+1·36	−0.12	+3·91
	Gooty	−0·03	−0·05	−0·08	+0·20	+1·31	+0·26	−2·19	−2·69	+7·40	+0·02	+0·27	−0·11	+4·31
	Adoni	−0·04	0	−0·26	−0·34	+1·78	−1·32	−3·06	+1·70	+6·03	+1·29	−0·60	−0·02	+5·16
	Dharmavaram	+0·34	−0·10	−0·16	+0·36	−0·67	−1·40	−0·11	+2·33	+1·61	+2·87	−1·74	−0·13	+3·20
	Cuddapah	−0·15	−0·04	−0·17	−0·36	−1·17	+2·70	−2·05	+0·43	−0·29	+0·51	−2·63	+0·70	−2·48
	Madanapalle	+0·51	−0·13	−0·30	+0·43	−0·93	−1·35	+3·84	+1·61	+2·64	+2·96	−1·15	+0·11	+8·24
	Chittoor	+0·16	−0·21	−0·32	−0·03	−0·83	−1·00	−1·20	+5·09	+3·34	+4·76	−0·86	−0·47	+8·43
	Vellore	+0·73	+0·19	−0·15	−0·03	−1·37	+0·01	−1·56	+4·18	+5·35	+1·48	−2·45	+0·75	+7·23
	Chandragiri	+0·15	−0·22	−0·11	−0·17	−1·36	+2·59	−2·08	+2·97	+1·67	+1·68	−1·07	−0·61	+3·44
	Arcot	+0·98	−0·44	−0·36	−0·59	−0·60	−0·32	+0·76	+2·12	+5·99	+5·59	−0·98	−0·20	+11·95
	Madras	+0·45	−0·23	−0·37	−0·63	−1·79	−1·67	+0·44	−1·40	−0·19	+9·74	−2·77	+3·93	+5·51
	Palmaner	+0·70	−0·10	−0·38	+0·48	+0·55	−1·27	−0·96	+0·75	−0·39	+2·14	−0·42	−0·60	+0·50
	Saidapet	+0·06	−0·41	−0·26	−0·55	−1·47	−2·02	+1·28	+0·47	−0·63	+14·31	−2·29	+4·70	+13·19
	Chingleput	−0·03	−0·32	−0·13	−0·44	+0·75	−1·25	−0·17	−0·52	+1·60	+10·04	+3·02	+2·51	+15·06
	Conjeevesam	−0·02	−0·19	−0·11	−0·70	−1·48	−2·24	−0·25	+2·01	+2·08	+3·31	−1·03	+4·37	+5·75
	Tindivanam	−0·19	−0·34	−0·25	−0·85	−1·63	−0·60	−1·03	−1·49	−3·85	−0·04	−0·51	+5·15	−5·63
	Cuddalore	+3·08	+0·49	+0·27	−0·91	−0·46	−1·33	+2·42	−1·40	−1·31	+8·66	+3·55	+10·00	+23·06
	Vridhachalam	+1·37	+0·41	−0·27	−0·80	+1·70	−0·83	+0·84	−3·76	−2·96	+1·12	+0·78	+12·95	+10·55
	Udayarpalaiyam	+2·26	+5·52	−0·27	−1·06	+0·73	−0·65	−0·87	+1·16	+1·58	+3·17	+2·20	+7·36	+21·13
	Salem	+0·24	+0·18	−0·15	−0·19	+3·99	+2·24	+0·42	+1·26	−0·79	+2·25	−0·88	+2·38	+10·95
	Atur	+0·70	−0·32	+0·79	+1·86	−0·34	−1·65	−0·64	+2·63	−0·95	+3·92	−1·73	+2·49	+6·76
	Shevaroy Hills	+1·17	−0·16	−0·66	−0·50	+5·42	−0·25	−1·03	+4·29	−2·53	+0·89	−0·55	+4·53	+10·62
	Kumbakonam	+3·54	+0·46	−0·45	−0·51	+1·84	−0·83	−2·17	+1·17	+3·32	−1·54	+1·80	+2·99	+9·62
	Tirupatur	+6·73	−0·21	+0·21	−1·01	+0·90	−2·75	−0·69	−0·60	−2·44	+2·82	+2·78	+1·81	+7·55
	Hosur	−0·08	−0·31	+0·01	−1·53	+1·17	−0·96	−1·13	+0·86	−1·27	+2·79	−1·48	+1·94	+0·01
	Tranquebar	+4·37	−0·18	+0·39	−1·02	−0·89	−1·06	−1·46	−0.80	+2·06	+5·89	−0·16	+3·89	+11·03
	Negapatam	+7·56	−0·60	−0·20	−1·02	−1·71	+0·26	−1·09	+0·58	−1·54	+2·22	+6·63	+4·08	+15·17
	Tanjore	+4·53	+1·65	+0·41	−1·13	+0·45	−0·19	−0·45	+0·74	+3·72	−1·98	+1·82	+3·55	+13·12
	Patukota	+3·42	+2·67	+0·69	−1·86	−1·73	+1·42	−1·55	+2·40	−2·35	+3·41	−0·21	+2·69	+2·98

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Madras—*concld.*	Trichinopoly	+2·09	+0·72	+0·18	−2·02	−1·48	+1·24	−1·83	+0·07	−1·57	+2·42	+0·28	+3·83	+3·93
	Karur	+0·79	−0·08	+0·79	−0·59	+1·01	−1·03	−0·99	+0·81	−0·92	+2·22	−0·06	+0·86	+2·81
	Coimbatore	+2·14	−0·31	−0·04	−1·17	+3·47	−1·02	+3·68	−0·38	−1·03	+7·25	+0·57	+2·08	+15·24
	Kollegal	+0·08	−0·12	+0·83	−1·12	+0·73	−1·63	−0·34	−3·05	−3·19	+0·57	−2·28	+2·01	−7·51
	Dindigul	+4·30	−0·30	+2·58	−1·98	−0·47	+1·64	−1·17	+0·33	−0·77	+5·22	+0·08	+1·56	+11·02
	Madura (Obsy.)	+2·45	−0·45	+2·68	−1·95	−0·69	+4·15	−1·91	+2·67	−0·77	+2·39	+0·82	+1·74	+11·13
	Vattanum	+5·77	−0·13	+1·01	−2·37	−0·06	−0·11	−0·75	+0·56	−1·95	+13·73	+5·14	+1·81	+22·65
	Periyakulam	+2·00	−0·86	−0·33	−1·35	+0·88	+0·43	+0·62	−0·41	−1·67	+1·37	+2·32	+5·32	+8·32
	Tinnevelly	+6·73	−0·17	+0·64	−1·84	+1·52	+0·67	−0·16	−0·50	−0·43	+3·67	+1·29	+3·84	+15·26
	Tuticorin	+6·04	−0·61	+4·23	−1·70	−0·89	+0·17	−0·16	−0·05	−0·06	+11·63	+1·54	+3·42	+23·56
	Satur	+2·74	−0·72	+0·46	−1·97	−0·11	0	+0·83	−1·09	−0·98	+6·03	+9·47	+2·02	+16·68
	Cochin	−0·79	−0·63	+0·03	−3·25	−5·57	−12·67	+22·51	−3·06	+6·89	+1·96	−0·52	+0·88	+4·78
	Palghat	−0·03	−0·32	+3·53	−1·56	−1·45	−13·86	+8·51	−2·35	+7·03	+6·06	+1·09	+9·06	+16·00
	Wellington	+3·61	−1·33	−0·89	+2·53	+0·20	+2·69	+2·48	+0·75	+1·48	+7·03	+3·54	+11·80	+28·51
	Manantoddy	−0·10	+0·59	+0·79	+1·62	+0·53	−13·60	+26·46	−10·00	+9·96	+2·78	+0·43	+3·27	+22·73
	Calicut	+0·51	−0·16	+1·17	−2·65	−3·16	−19·28	+22·72	−5·11	+13·99	+3·92	+4·39	+3·36	+19·70
	Tellicherry	+0·47	−0·02	−0·32	−2·65	−6·02	−24·84	+7·02	−3·41	+16·58	+4·99	−1·51	+0·09	−9·65
	Cannanore	−0·26	−0·16	−0·11	−2·38	−2·93	−18·21	+21·39	−1·47	+12·41	+2·16	−1·57	+3·67	+12·54
	Mangalore	−0·13	−0·07	+0·25	−1·85	−3·36	−9·01	+24·93	−5·71	+16·59	−4·14	+1·50	+1·74	+20·74
Mysore and Coorg.	Bangalore	−0·03	−0·22	−0·05	+1·10	−0·25	−0·68	−2·87	−2·87	+1·30	+1·92	−2·17	+0·61	−4·21
	Mysore	−0·07	−0·17	−0·64	+1·21	+1·99	−0·75	+0·66	−2·18	−1·39	+2·15	−1·35	+1·42	+0·88
	Shimoga	−0·06	−0·11	−0·43	+2·38	−2·45	+0·08	+3·16	−0·02	−0·52	+3·70	−0·19	+5·36	+10·99
	Mercara	−0·18	+0·19	+0·38	+1·25	+0·41	−16·96	+9·58	−14·82	+6·17	−0·79	−0·20	+8·66	−8·31
	Kolar	+0·44	−0·04	−0·41	−0·20	0	−2·34	−1·54	−0·94	−0·23	+2·17	−2·45	+0·56	−4·98
	Tumkur	−0·14	−0·19	−0·33	+0·47	−1·32	−2·53	−2·13	−0·72	+1·16	+6·73	+0·16	+0·04	+1·20
	Chitaldroog	−0·15	−0·03	−0·25	+0·05	−1·38	−1·33	−0·89	−1·98	−1·76	+10·37	+0·34	+2·46	+5·45
	Chikmagalur	−0·18	−0·20	−0·63	−1·67	+0·54	+0·44	−0·71	−2·58	−2·04	+2·64	−0·39	+6·41	+1·63
	Hassan	−0·61	−0·09	−0·44	−0·22	+1·53	−2·05	+2·36	−1·51	+0·30	+6·26	+1·29	+4·32	+11·14
Ceylon.	Trincomalee	+5·31	+1·30	+1·78	−1·95	−2·01	+0·68	−1·82	−2·58	−2·13	+2.83	+13·04	+0·11	+14·56
	Colombo	−1·29	+2·68	+2·10	−1·42	−0·21	+1·49	+0·17	−1·05	+3·20	+17·11	+7·33	+0·17	+30·28
	Ratnapura	−2·65	−2·12	+0·46	+10·34	−3·93	−5·63	+5·40	+1.65	+10·19	+4·11	−1·93	+0·30	+16·19
	Puttalam	+7·09	+0·08	+1·18	−0·81	+0·84	−1·56	+0·23	+0·61	−0·58	+3·56	+1·62	+1·55	+13·81
	Anuradhapur	+4·87	+2·08	+0·02	−1·84	−1·40	+0·40	−1·07	−1·27	+3·16	+12·98	+2·12	+2·83	+22·88
	Manaar	+4·93	+0·72	+1·69	−1·50	−1·32	+2·83	−0·23	−0·48	−1·04	+5·97	+6·20	−1·49	+16·28
	Jaffna	+5·61	+3·20	+1·66	−1·91	−1·70	+3·19	−0·75	−0·66	−2·60	+4·88	+6·13	−3·77	+13·28
	Batticoloa	+2·58	−0·99	+0·54	−1·77	−1·38	0	+0·05	−1·46	−0.76	+1·32	+9·61	−4·07	+3·67
	Hambantota	+1·79	+0·01	−0·55	+1·07	−3·21	−1·18	−0·34	−0·59	+6·06	+4·21	+6·07	−0·33	+13·01

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—contd.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Ceylon—*concld.*	Galle	+1·66	+0·62	−2·57	−4·38	+4·52	+5·92	+0·45	−2·09	+7·47	+4·93	−2·94	+3·14	+16·73
	Kandy	−1·38	−0·11	+3·54	+7·99	−2·51	−0·31	+3·75	−4·09	+0·66	+9·11	+2·70	−0·39	+12·76
	Nuwara Eliya	+0·65	+0·09	−1·20	−0·21	−4·16	−3·06	+5·72	−2·61	+2·40	+3·60	+4·47	−2·55	−2·86
	Hakgala	+0·54	+1·91	−3·15	+1·23	−3·18	−3·63	+4·22	+0·24	+1·50	+9·18	+9·03	−7·26	+10·63
	Badulla	−2·12	+0·91	−1·41	−1·60	−1·99	+0·92	−0·85	+1·04	+0·56	+2·83	+3·64	−4·67	−2·74
Burma.	Akyab	−0·12	−0·17	−0·53	+2·41	+7·73	−19·09	+30·52	−18·36	+1·18	−6·48	−3·27	−0·44	−6·62
	Kyaukpyu	−0·11	−0·04	−0·25	−0·58	+0·91	−1·08	+11·39	−18·85	−0·65	+0·96	−3·42	−0·49	−12·21
	Sandoway	−0·08	−0·07	−0·10	−1·07	+4·89	−4·27	+23·27	−19·67	−2·47	−3·23	−1·21	+0·06	−3·95
	Rangoon	−0·11	−0·23	−0·16	?	?	?	+2·93	+0·53	−0·54	−3·12	−2·52	+1·16	?
	Bassein	−0·17	−0·20	−0·05	−0·57	+10·28	−6·73	+4·65	−0·22	−2·38	−2·88	−1·01	+0·11	+0·83
	Diamond Island	−0·23	+0·20	−0·05	−0·38	+3·19	−4·51	−7·47	−3·06	+4·31	−3·34	−4·32	+0·89	−15·77
	Henzada	−0·07	+0·23	−0·04	−0·85	+9·66	−0·80	+12·65	−5·50	+1·48	−3·00	−1·56	+0·10	+12·30
	Myanaung	−0·05	−0·02	−0·01	−0·96	+3·24	+0·33	+4·39	+0·94	+1·18	−2·08	−1·73	+0·39	+5·62
	Prome	−0·02	−0·01	−0·02	−0·73	+0·44	−1·54	+2·72	−5·55	+0·71	−3·25	−1·71	+0·73	−8·63
	Thayetmyo	−0·02	−0·04	−0·06	+0·19	−1·73	−2·22	+2·85	−1·02	−1·23	−0·85	−1·60	+0·08	−5·65
	Mandalay	−0·06	−0·08	−0·21	−0·61	−0·41	−3·31	+1·57	+0·23	+0·56	−0·17	−1·39	−0·23	−4·11
	Shwebo	−0·08	+0·25	−0·24	+0·44	+1·01	+1·01	−0·88	+0·11	+3·90	−1·32	−0·84	−0·15	+3·21
	Ye-u	−0·08	+0·13	−0·37	−0·17	+2·62	+3·72	−0·08	−4·47	+0·16	−2·30	−0·43	−0·24	−1·57
	Minbu	−0·04	+0·07	−0·02	−0·52	−2·54	−1·59	+0·19	−0·30	+0·38	−0·01	−1·02	−0·29	−5·69
	Pyinmana	+0·48	+0·41	−0·03	−1·01	+0·18	+3·60	−1·23	−4·63	−2·38	−4·16	−0·02	+0·94	−7·85
	Pagan	+0·03	−0·03	−0·13	−0·10	−2·37	+2·19	−1·26	+2·56	+1·27	−1·22	−0·89	−0·17	−0·12
	Kyauksai	−0·17	−0·07	−0·12	−0·70	−0·39	−0·43	+0·59	+2·72	−1·52	+1·22	−0·61	−0·27	+0·05
	Bhamo	−0·16	−0·29	−0·62	+0·71	+5·29	+2·00	−0·81	−8·95	+0·45	−0·43	−0·87	−0·40	−4·08
	Kindat	−0·25	−0·28	−0·19	+0·96	−0·67	−4·50	−4·46	+9·62	+3·73	−4·50	−1·04	−0·38	−1·96
	Magwe	0	−0·02	−0·02	−0·85	−1·43	+0·41	−0·94	+2·12	+1·93	−1·20	−0·90	−0·44	−1·34
	Yemethin	+0·22	+0·86	−0·14	−1·46	−1·36	−0·71	+1·04	−0·23	+0·97	+1·19	−1·38	−0·27	−1·27
	Fort Sagaing	−0·03	−0·04	−0·17	−0·38	−0·82	+1·08	+1·38	−0·84	+0·18	−1·51	−1·53	−1·29	−2·98
	Mingin	−0·11	−0·03	−0·52	−0·39	+0·03	+1·62	+2·79	−0·79	−0·32	−0·93	−1·35	−0·20	−5·78
	Toungoo	+0·40	+0·26	−0·08	−1·88	+1·54	−3·28	−1·40	−7·12	+1·75	−4·15	−0·17	+0·78	−13·35
	Shwegyin	−0·12	−0·13	−0·28	−2·22	+1·65	−6·70	+2·79	−16·29	−3·08	−6·83	−1·52	+1·57	−31·16
	Moulmein	−0·14	+0·07	−0·23	−1·57	+7·73	−10·84	−2·71	−7·16	−0·68	−3·89	−1·44	+0·80	−20·06
	Tavoy	−0·09	−0·47	+0·79	−0·79	+10·30	−3·74	−6·48	−11·48	+7·91	−3·75	−1·40	−0·06	−12·26
	Mergui	−0·72	+1·20	+3·51	−1·52	+7·93	−8·92	−14·09	−4·39	−0·49	−6·95	−2·34	+1·35	−25·43
	Myingyan	−0·04	−0·05	−0·08	−0·07	−2·55	+1·39	+0·11	+1·13	+1·47	−2·36	−1·06	−0·19	−2·30
	Monywa	0	0	−0·22	+0·03	2·77	−3·05	−0·78	−0·54	−1·17	−3·17	−0·97	−0·15	−7·25
Bay Islands	Port Blair	−0·90	+5·33	+0·14	−2·94	+0·83	+3·20	−6·45	+14·87	+7·38	−3·92	+5·60	+0·76	+23·90
	Cocos Island	−0·31	+0·21	0	−0·93	−1·34	+2·70	No record						?

TABLE XXXI.—*Comparison of the monthly and total rainfall (in inches) in 1902, with the averages of past years*—concld.

Province.	Station.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Kashmir	Leh	−0·31	−0·34	+0·45	+0·41	+0·11	−0·06	−0·24	−0·04	−0·21	+0·01	+0·11	−0·18	−0·29
	Srinagar	−3·36	−3·63	+1·16	+0·50	+0·56	+1·24	−0·40	−0·19	−0·48	−0·27	+1·39	−1·08	−4·62
	Skardu	−1·49	−1·19	+0·81	−1·23	−0·33	−0·05	−0·22	−0·78	−0·59	−0·03	−0·02	−0·61	−5·73
	Gilgit	−0·11	−0·15	+0·80	+0·76	+0·41	−0·15	+0·16	0	−0·22	+0·13	+0·05	+0·20	+1·88
Nepal	Katmandu	−0·87	−1·07	+0·50	+0·89	+1·71	+2·94	−0·35	+5·24	+3·98	−1·49	−0·18	−0·26	+11·04
Extra India.	Meshed	+1·60	+0·38	−0·65	−0·49	−0·97	−0·24	−0·02	+0·05	−0·07	+0·93	+0·90	+0·62	+2·04
	Teheran	+0·97	−0·10	−1·23	+0·69	−0·41	−0·04	+0·01	−0·04	−0·11	+0·76	+1·30	−1·13	+0·67
	Ispahan	+0·46	−0·07	+0·59	+0·30	−0·09	+0·03	−0·05	•	0	−0·27	+3·21	+1·00	+5·21
	Bushire	−2·08	−2·44	−0·65	−0·09	−0·01	0	0	0	0	+0·26	+4·09	−0·36	−1·28
	Jask	−0·58	−0·45	−0·99	−0·03	0	−0·10	−0·02	0	0	+0·22	−0·54	−0·27	−2·76
	Muscat	−1·46	−0·58	−1·00	+0·24	0	−0·32	−0·04	0	0	+0·98	−0·65	−0·02	−2·85
	Baghdad	−1·09	−1·69	+0·40	+0·99	−0·22	−0·01	?	−0·09	?	+0·44	+1·00	−1·26	?
	Aden	−0·23	−0·21	−0·74	−0·25	−0·17	−0·04	−0·04	−0·13	−0·12	−0·01	−0·06	−0·13	−2·13
	Perim	−0·31	−0·33	0	+0·11	−0·37	?	−0·17	−0·43	−0·01	−0·05	+0·02	−0·07	?
	Kabul	−0·98	−0·26	−2·39	−0·09	+0·04	−0·18	−0·21	−0·16	−0·02	+0·35	−0·09	−0·25	−4·24
	Kashgar	−0·28	−0·04	−0·21	+0·95	−0·79	−0·40	−0·34	−0·71	+0·71	−0·03	−0·02	−0·18	−1·34
	Zanzibar	−3·04	+2·32	−0·92	−2·15	+1·85	−0·36	+2·19	−1·07	+0·54	+2·64	−0·90	+6·24	+8·24
	Port Victoria (Seychelles)	−2·92	+2·48	−2·60	−3·29	−0·50	−4·96	−1·65	+0·84	−2·49	+3·06	−1·34	−0·66	−1·17
	Mauritius	−4·96	+10·47	−3·03	−3·50	−2·19	−0·26	−0·19	−1·79	−0·13	+0·36	−0·57	+4·92	−0·07

TABLE XXXII—*Geographical summary of rainfall anomalies in 1902.*

Meteorological Division.	Area square miles.	Number of stations.	Normal rainfall.	Actual rainfall.	Mean excess or defect.	Total excess square miles × 1 inch.	Total defect square miles × 1 inch.
			Inches.	Inches.	Inches.		
I. Punjab Plains	120,000	29	21·28	15·92	−5·36		643,200
II. United Provinces of Agra and Oudh	83,500	44	38·15	33·17	−4·98		415,830
IIIa. Rajputana East	67,000	29	25·98	19·73	−6·25		418,750
IIIb. " West	58,000	10	11·71	7·62	−4·09		237,220
IV Central India States	91,000	25	42·78	36·87	−5·91		537,810
V. Bihar	30,000	15	45·58	44·03	−1·55		46,500
VI. Western Bengal	38,000	14	53·21	47·60	−5·61		213,180
VII. Lower "	54,000	28	66·16	70·51	+4·35	234,900	
VIII. Assam and Cachar	61,000	17	95·03	106·27	+11·24	685,640	
IX. Orissa and Northern Circars	27,000	32	52·10	49·65	−2·45		66,150
X. Central Provinces, South	61,000	19	52·47	35·51	−16·96		1,034,560
XI. Berar and Khandesh	43,000	13	35·40	29·85	−5·55		238,650
XII. Gujarat	54,500	13	33·02	29·92	−3·10		168,950
XIII. Sind and Cutch	68,000	10	8·26	9·25	+0·99	67,320	
XIV. North Deccan	48,000	13	30·60	32·60	+2·00	96,000	
XV. Konkan and Ghats	16,000	11	139·15	134·78	−4·37		69,920
XVI. Malabar and Ghats	18,000	8	114·93	124·76	+9·83	176,940	
XVII. Hyderabad	74,000	17	33·27	28·26	−5·01		370,740
XVIII. Mysore and Bellary	58,000	18	29·15	30·43	+1·28	74,240	
XIX. Carnatic	72,000	36	36·84	47·75	+10·91	785,520	
XX. Arakan	11,000	6	154·30	156·44	+2·14	23,540	
XXI. Pegu	32,500	7	72·55	66·43	−6·12		198,900
XXII. Tenasserim	10,500	4	173·33	151·11	−22·22		233,310
XXIII. Upper Burma	?	13	39·50	36·85	−2·65		

On the mean of the whole area represented in the above table there was a defect of 2·30 inches, or, excluding the Burmese Peninsula of 2·05 inches.

TABLE XXXIII.—*Geographical summary of the distribution of rainfall in 1902 according to season.*

Meteorological Division.	January and February.			March to May.			June to October.			November and December.		
	Normal average.	Actual average.	Difference.	Normal average.	Actual average.	Difference.	Normal average.	Actual average.	Difference.	Normal average.	Actual average.	Difference.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
North-West Himalayas	6·03	0·77	—5·26	7·11	7·71	+0·60	42·43	35·94	—6·49	1·66	0·18	—1·48
Punjab Plains	2·21	0·06	—2·15	2·42	1·77	—0·65	15·92	14·07	—1·85	0·73	0·01	—0·72
United Provinces of Agra and Oudh.	1·52	0·27	—1·25	1·38	0·87	—0·51	35·80	32·75	—3·05	0·45	0·03	—0·42
Rajputana	0·49	0·08	—0·41	0·78	0·44	—0·34	21·45	16·05	—5·40	0·39	0·05	—0·34
Central India States	0·99	1·04	+0·05	0·75	0·26	—0·49	40·39	34·21	—6·18	0·65	1·37	+0·72
Bihar	1·26	0·16	—1·10	2·50	2·66	+0·16	41·12	40·15	—0·97	0·32	0·06	—0·26
Western Bengal and Chota Nagpur.	1·49	0·55	—0·94	3·59	3·80	+0·21	47·53	42·82	—4·71	0·60	0·42	—0·18
Lower Bengal	1·39	0·03	—1·36	10·55	16·97	+6·42	53·08	52·65	—0·43	0·71	0·46	—0·25
Eastern Himalayas	1·64	0·24	—1·40	18·03	20·59	+2·56	103·92	132·44	+28·52	0·55	0·61	+0·06
Assam and Eastern Bengal	1·83	0·52	—1·31	22·58	27·49	+4·91	69·44	77·91	+8·47	1·19	0·36	—0·83
Orissa and Northern Circars	0·74	0·11	—0·63	4·83	5·86	+1·03	44·29	41·40	—2·89	2·21	2·02	—0·19
Central Provinces South	0·93	0·14	—0·79	1·85	0·61	—1·24	48·85	33·81	—15·04	0·83	0·95	+0·12
Berar and Khandesh	0·51	0·22	—0·29	1·10	0·29	—0·81	32·76	26·28	—6·48	1·02	3·07	+2·05
Gujarat	0·18	0·17	—0·01	0·37	0·09	—0·28	31·95	29·57	—2·38	0·30	0·29	—0·01
Sind and Cutch	0·49	0	—0·49	0·45	0·57	+0·12	7·89	9·09	+1·20	0·21	0	—0·21
North Deccan	0·18	0·03	—0·15	3·42	3·04	—0·38	25·55	23·82	—1·73	1·45	5·71	+4·26
Konkan and Ghats	0·22	0	—0·22	1·71	0·41	—1·30	131·63	124·96	—6·67	0·89	4·28	+3·39
Malabar and Ghats	0·52	0·39	—0·13	11·34	7·69	—3·65	99·16	108·48	+9·32	3·91	8·20	+4·29
Hyderabad	0·26		—0·26	1·91	1·08	—0·83	29·18	24·23	—4·95	1·31	2·18	+0·87
Ceded Districts and Mysore	0·24	0·11	—0·13	4·80	4·68	—0·12	21·60	22·45	+0·85	2·52	3·19	+0·67
Carnatic	0·92	2·99	+2·07	4·07	3·57	—0·50	21·12	26·04	+4·92	10·66	14·78	+4·12
Nilgiris	2·53	4·81	+2·28	9·96	11·80	+1·84	26·70	35·75	+9·05	10·92	26·26	+15·34
Arakan	0·77	0	—0·77	14·96	21·00	+6·04	135·72	135·10	—0·62	2·87	0·35	—2·52
Pegu	0·20	0·19	—0·01	8·95	11·11	+2·16	66·27	60·98	—5·29	2·60	1·29	—1·31
Tenasserim	0·98	0·87	— ·11	22·36	28·69	+6·33	147·69	120·00	—27·69	2·31	1·55	—0·76
Upper Burma	0·21	0·25	+0·04	6·18	5·66	—0·52	30·29	29·05	1·24	1·48	0·35	—1·13
Bay Islands	1·15	3·31	+2·16	15·45	13·33	—2·12	76·30	91·13	+14·83	14·08	20·44	+6·36

TABLE XXXIV.—*Average actual and normal rainfall data of the 57 meteorological divisions in India for the four seasons of the year 1902 and for the whole year.*

Province.	Division.	January and February.			March to May.			June to October.			November and December.			Whole year.		
		Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Burma	1. Tenasserim	0·44	0·62	−0·18	32·36	27·83	+4·53	153·98	164·62	−10·64	1·42	2·15	−0·73	188·20	195·22	−7·02
	2. Lower Burma, Deltaic	0·45	0·21	+0·24	16·49	14·08	+2·41	79·81	88·61	−8·80	1·26	1·76	−0·50	98·01	104·66	−6·65
	3. Central Burma	0·05	0·07	−0·02	9·00	7·76	+1·24	48·28	47·42	+0·86	0·76	1·23	−0·47	58·09	56·48	+1·61
	4. Upper Burma	0·16	0·30	−0·14	6·00	7·37	−1·37	36·45	32·40	+4·05	0·32	1·61	−1·29	42·93	41·68	+1·25
	5. Arakan	0·01	0·20	−0·19	11·20	14·33	−3·13	155·21	157·02	−1·81	0·24	1·93	−1·69	166·66	173·48	−6·82
Bengal and Assam	6. Eastern Bengal	0·01	1·42	−1·41	28·38	17·00	+11·38	80·12	70·60	+9·52	0·11	1·27	−1·16	108·62	90·29	+18·33
	7. Assam Surma	0·29	2·31	−2·02	40·19	39·17	+1·02	89·58	90·49	−0·91	0·32	1·65	−1·33	130·38	133·62	−3·24
	8. Do. Hills	0·33	1·98	−1·65	26·67	27·17	−0·50	106·15	104·66	+1·49	0·42	1·54	−1·12	133·57	135·35	−1·78
	9. Do. Brahmaputra	1·10	2·20	−1·10	23·16	23·68	−0·52	74·04	65·17	+8·87	0·56	0·93	−0·37	98·86	91·98	+6·88
	10. Deltaic Bengal	0	1·43	−1·43	18·02	9·91	+8·11	44·78	48·96	−4·18	0·85	0·89	−0·04	63·65	61·19	+2·46
	11. Central do.	0·03	1·21	−1·18	10·35	6·78	+3·57	46·26	48·03	−1·77	0·19	0·51	−0·32	56·83	56·53	+0·30
	12. North do.	0·04	1·02	−0·98	20·49	15·88	+4·61	95·21	82·54	+12·67	0·08	0·30	−0·22	115·82	99·74	+16·08
	13. Bengal Hills	0·41	1·55	−1·14	16·40	14·51	+1·89	121·17	93·21	+27·96	0·34	0·51	−0·17	138·32	109·78	+28·54
	14. Orissa	0·24	1·03	−0·79	7·27	6·07	+1·20	45·29	49·57	−4·28	1·92	1·70	+0·22	54·72	58·37	−3·65
	15. Chota Nagpur	0·59	1·31	−0·72	3·77	3·80	−0·03	41·01	44·71	−3·70	0·45	0·59	−0·14	45·82	50·41	−4·59
	16. South Bihar	0·28	1·41	−1·13	1·73	2·04	−0·31	36·44	41·24	−4·80	0·07	0·33	−0·26	38·52	45·02	−6·50
	17. North do.	0·01	1·12	−1·11	5·94	4·26	+1·68	45·30	47·97	−2·67	0	0·20	−0·20	51·25	53·55	−2·30
United Provinces of Agra and Oudh.	18. United Provinces, East	0·57	1·19	−0·62	0·48	0·86	−0·38	35·96	37·39	−1·43	0·12	0·39	−0·27	37·13	39·83	−2·70
	19. South Oudh	0·20	1·15	−0·95	0·35	0·89	−0·54	29·97	35·13	−5·16	0	0·47	−0·47	30·52	37·64	−7·12
	20. North do.	0·06	1·29	−1·23	1·55	1·52	+0·03	36·93	38·86	−1·93	0	0·42	−0·42	38·54	42·09	−3·55
	21. United Provinces, Central.	0·60	0·99	−0·39	0·11	0·71	−0·60	27·14	32·57	−5·43	0·07	0·49	−0·42	27·92	34·76	−6·84
	22. United Provinces, West	0·01	1·08	−1·07	0·22	0·95	−0·73	23·04	22·65	+0·39	0	0·42	−0·42	23·27	25·10	−1·83
	23. United Provinces, East Submontane.	0·04	1·22	−1·18	2·14	1·72	+0·42	37·65	42·19	−4·54	0·01	0·25	−0·24	39·84	45·38	−5·54
	24. United Provinces, West Submontane.	0·30	2·66	−2·36	1·71	1·83	−0·12	38·02	42·38	−4·36	0	0·72	−0·72	40·03	47·59	−7·56
	25. United Provinces Hills	0·49	4·84	−4·35	4·92	4·62	+0·30	48·05	53·26	−5·21	0·07	1·07	−1·00	53·53	63·79	−10·26
Punjab and North-West Frontier Province.	26. South-East Punjab	0·01	1·13	−1·12	0·89	1·32	−0·43	18·53	19·27	−0·74	0·25	0·97	−0·72	19·68	22·69	−3·01
	27. South Punjab	0·03	1·08	−1·05	1·31	1·39	−0·08	10·28	13·07	−2·79	0	0·43	−0·43	11·62	15·97	−4·35
	28. Central Punjab	0·09	2·00	−1·91	1·74	2·36	−0·62	13·00	13·71	−0·71	0	0·54	−0·54	14·83	18·61	−3·78
	29. Punjab Submontane	0·05	2·90	−2·85	2·53	2·72	−0·19	17·43	23·32	−5·89	0·01	0·82	−0·81	20·02	29·76	−9·74
	30. Do. Hills	0·95	6·55	−5·60	9·05	8·49	+0·56	30·64	43·40	−12·76	0·16	1·85	−1·69	40·80	60·29	−19·49

TABLE XXXIV.—*Average actual and normal rainfall data of the 37 meteorological divisions in India for the four seasons of the year 1902 and for the whole year*—concld.

Province.	Division.	January and February.			March to May.			June to October.			November and December.			Whole year.		
		Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.	Average actual rainfall.	Average normal rainfall.	Variation of actual from normal.
		Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Punjab and North-West Frontier Province—*concld.*	31. North Punjab	0·08	3·60	−3·52	4·70	4·66	+0·04	14·20	13·21	+0·99	0·27	1·13	−0·86	19·25	22·60	−3·35
	32. West do.	0	1·04	−1·04	1·28	1·57	−0·29	5·97	6·25	−0·28	0	0·32	−0·32	7·25	9·18	−1·93
Bombay and Malabar Coast Districts (Madras).	33. Malabar	0·29	0·38	−0·09	7·42	10·96	−3·54	126·95	109·95	+17·00	9·28	4·21	+5·07	143·94	125·50	+18·44
	33-A. Travancore	1·09			11·07			76·49			12·79			101·44		
	34. Madras South Central	1·19	0·47	+0·72	7·01	5·91	+1·10	19·96	18·01	+1·95	7·70	5·05	+2·65	35·86	29·44	+6·42
	35. Coorg	0·49			10·89			82·52			11·36			105·26		
	36. Mysore	0·09	0·18	−0·09	5·98	5·18	+0·80	28·22	26·03	+2·19	4·98	3·20	+1·78	39·22	34·54	+4·68
	37. Konkan	0·01	0·28	−0·27	0·62	1·99	−1·37	102·18	110·02	−7·84	3·78	0·98	+2·83	106·59	113·14	−6·55
	38. Bombay Deccan	0·08	0·18	−0·10	1·41	3·20	−1·39	25·92	31·06	−5·14	5·68	1·40	+4·28	33·39	35·74	−2·35
	39. Hyderabad, North	0·02	0·24	−0·22	0·86	1·83	−0·97	26·72	32·59	−5·87	3·19	1·30	+1·89	30·49	35·66	−5·17
	40. Khandesh	0·45	0·24	+0·21	0·89	0·33	+0·44	24·20	29·24	−5·04	2·64	0·70	+1·94	27·68	31·01	−3·33
Central Provinces and Berar.	41. Berar	0·13	0·52	−0·39	0·36	0·98	−0·62	25·20	29·61	−4·41	2·47	0·85	+1·62	28·16	31·96	−3·80
	42. Central Provinces, West.	0·24	0·74	−0·50	0·21	0·99	−0·78	29·44	41·51	−12·07	2·05	0·81	+1·24	31·94	44·05	−12·11
	43. Central Provinces Central.	0·52	0·98	−0·46	0·36	1·29	−0·93	34·05	47·91	−13·86	1·58	0·67	+0·90	36·50	50·85	−14·35
	44. Central Provinces East	0·05	0·64	−0·59	1·64	1·93	−0·29	37·32	48·56	−11·24	0·36	0·70	−0·34	39·37	51·83	−12·46
Bombay (North)	45. Gujarat	0·16	0·15	+0·01	0·04	0·25	−0·21	40·68	40·76	−0·08	0·58	0·22	+0·36	41·46	41·38	+0·08
	46. Kathiawar and Cutch	0·05	0·15	−0·10	0·09	0·29	−0·20	21·82	26·64	−4·82	0·33	0·39	−0·06	22·29	27·47	−5·18
	47. Sind	0	0·53	−0·53	1·00	0·39	+0·61	8·18	5·51	+2·67	0	0·20	−0·20	9·18	6·63	+2·55
	48. Baluchistan Hills	0·04	2·93	−2·89	0·56	·85	−1·29	2·15	2·16	−0·01	0·50	1·49	−0·99	3·25	8·43	−5·18
Rajputana and Central India.	49. Central India, East	1·17	0·87	+0·30	0·26	0·52	−0·26	33·34	35·66	−2·32	0·45	0·64	−0·17	35·14	37·59	−2·45
	50. Rajputana, East, Central India, West.	0·19	0·64	−0·45	0·32	0·74	−0·42	22·06	22·55	−0·49	0·07	0·59	−0·52	22·84	24·52	−1·68
	51. West Rajputana	0	0·29	−0·29	0·19	0·44	−0·25	8·43	10·71	−2·28	0	0·34	−0·34	8·62	11·78	−3·16
Madras	52. East Coast, North	0·10	0·50	−0·40	3·17	3·65	−0·48	36·90	34·57	+2·33	2·69	3·30	−0·61	42·86	42·02	+0·84
	53. Hyderabad, South	0	0·27	−0·27	1·56	2·43	−0·87	28·34	26·12	−3·78	1·73	1·27	+0·46	25·63	29·79	−4·16
	54. Madras, Central	0·15	0·12	+0·03	2·36	2·46	−0·10	21·15	19·65	+1·50	2·02	2·59	−0·57	25·68	24·82	+0·86
	55. East Coast, Central	0·45	0·57	−0·12	0·77	1·91	−1·14	30·45	20·50	+9·95	17·50	10·19	+7·31	48·77	33·17	+15·60
	56. East Coast, South	3·20	0·90	+2·30	2·51	3·39	−0·88	26·97	23·17	+3·80	18·14	14·17	+3·97	50·82	41·63	+9·19
	57. Madras, South	5·43	1·40	+4·03	5·48	4·92	+0·56	18·15	12·51	+5·64	15·25	9·82	+5·43	44·01	28·65	+15·36

TABLE XXXV.—*Average actual and normal number of rainy days of the 57 meteorological divisions of India for the four seasons of the year 1902 and for the whole year.*

Province.	Division.	January and February.			March to May.			June to October.			November and December.			Whole year.		
		Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.
Burma	1. Tenasserim	0·7	1·1	−0·4	27·1	25·1	+2·0	110·1	114·1	−4·0	2·7	3·7	−1·0	140·6	144·0	−3·4
	2. Lower Burma Deltaic	0·9	0·3	+0·6	15·7	17·5	−1·8	95·9	103·5	−7·6	2·9	2·8	+0·1	115·4	124·1	−8·7
	3. Central Burma	0·1	0·1	0	10·2	11·1	−0·9	73·4	75·7	−2·3	1·5	2·0	−0·5	85·2	88·9	−3·7
	4. Upper Burma	0·6	0·7	−0·1	11·4	11·4	0	47·9	45·0	+2·9	0·9	2·9	−2·0	60·8	60·0	+0·8
	5. Arakan	0·1	0·3	−0·2	13·5	14·1	−0·6	97·8	104·4	−6·6	0·5	2·7	−2·2	111·9	121·5	−9·6
Bengal and Assam	6. Eastern Bengal	0	2·5	−2·5	29·1	18·9	+10·2	73·4	72·9	+0·5	0·8	1·6	−1·1	103·0	95·9	+7·1
	7. Assam Surma	0·7	4·3	−3·6	39·6	37·4	+2·2	86·3	87·7	−1·4	0·9	2·1	−1·2	127·5	131·5	−4·0
	8. Do. Hills	0·9	4·3	−3·4	37·4	30·2	+7·2	88·9	89·2	−0·3	1·3	3·0	−1·7	128·5	126·7	+1·8
	9. Do. Brahmaputra	3·2	5·6	−2·5	36·6	32·5	+4·1	72·8	69·1	+3·7	1·6	2·2	−0·6	114·1	109·4	+4·7
	10. Deltaic Bengal	0	2·5	−2·3	21·7	13·8	+7·9	58·1	62·1	−4·0	1·7	1·2	+0·5	81·5	79·4	+2·1
	11. Central do.	0	2·4	−2·4	16·9	10·0	+6·9	53·4	55·2	−2·8	0·5	0·8	−0·3	72·4	71·4	+1·0
	12. North do.	0·1	2·3	−2·2	23·1	16·5	+6·6	73·0	66·9	+6·1	0·2	0·7	−0·5	98·4	88·4	+10·0
	13. Behgal Hills	1·3	3·8	−2·5	32·1	25·8	+6·3	96·2	89·2	+7·0	1·0	1·4	−0·4	130·6	120·2	+10·4
	14. Orissa	0·7	1·8	−1·1	12·7	9·2	+3·5	52·4	58·7	−6·3	2·3	2·0	+0·3	68·1	71·7	−3·6
	15. Chota Nagpur	1·5	2·6	−1·1	7·7	6·9	+0·8	50·0	58·1	−8·1	0·9	1·0	−0·1	60·1	68·6	−8·5
	16. South Bihar	0·8	3·0	−2·2	3·7	3·8	+0·8	45·4	46·9	−1·5	0·2	0·6	−0·4	50·1	54·0	−3·9
	17. North do.	0	2·4	−2·4	9·2	6·3	+2·9	49·2	49·4	−0·2	0	0·5	−0·5	58·4	58·6	−0·2
United Provinces of Agra and Oudh.	18. United Provinces, East	1·6	2·6	−1·0	1·2	1·9	−0·7	43·1	42·7	+0·4	0·5	0·7	−0·2	46·4	47·9	−1·5
	19. South Oudh	0·9	2·4	−1·5	1·1	2·0	−0·9	38·2	38·6	−0·4	0	0·8	−0·8	40·2	43·8	−3·6
	20. North do.	0·2	2·8	−2·6	3·9	2·9	+1·0	39·8	39·9	−0·6	0	0·8	−0·8	43·4	46·4	−3·0
	21. United Provinces, Central.	1·7	2·2	−0·5	0·4	1·8	−1·4	36·8	36·8	−3·5	0·2	0·9	−0·7	35·6	41·7	−6·1
	22. United Provinces, West.	0	2·6	−2·6	0·8	2·6	−1·8	30·1	27·8	+2·3	0	0·9	−0·9	30·9	33·9	−3·0
	23. United Provinces, East Submontane.	0·3	2·5	−2·2	3·9	3·1	+0·8	43·4	43·1	+0·3	0	0·6	−0·6	47·6	49·3	−1·7
	24. United Provinces, West Submontane.	0·5	4·8	−4·3	4·1	4·1	0	37·6	39·0	−1·4	0	1·4	−1·4	42·2	49·3	−7·1
	25. United Provinces Hills	1·0	8·1	−7·1	12·4	9·7	+1·4	58·6	57·0	−3·4	0·2	2·0	−1·8	65·9	76·8	−10·9
Punjab and North-West Frontier Province.	26. South-East Punjab	0·1	2·4	−2·3	2·2	3·0	−0·8	21·8	21·5	+0·3	0·6	1·6	−1·0	24·7	28·5	−3·8
	27. South Punjab	0·1	2·4	−2·3	3·6	2·9	+0·7	15·2	15·8	−0·6	0	0·9	−0·9	18·9	22·0	−3·1
	28. Central Punjab	0·3	4·0	−3·7	5·1	4·8	+0·3	17·5	15·5	+2·0	0	0·9	−0·9	22·9	25·2	−2·3
	29. Punjab Submontane	0·2	4·9	−4·7	6·1	4·9	+1·2	23·2	23·2	0	0	1·4	−1·4	29·5	34·4	−4·9
	30. Do. Hills	2·3	8·7	−6·4	17·5	13·2	+4·3	44·3	43·4	+0·9	0·5	2·7	−2·2	64·6	68·0	−3·4

TABLE XXXV.—*Average actual and normal number of rainy days of the 57 meteorological divisions of India for the four seasons of the year 1902 and for the whole year*—concld.

Province.	Division.	January and February.			March to May.			June to October.			November and December.			Whole year.		
		Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.	Average actual number of rainy days.	Average normal number of rainy days.	Variation of actual from normal.
Punjab and North-West Frontier Province—*concld.*	31. North Punjab	0·4	5·8	−5·4	10·6	8·9	+1·7	21·6	17·5	+4·1	0·7	2·1	−1·4	33·3	34·3	−1·0
	32. West do.	0	2·4	−2·4	2·9	3·1	−0·2	9·4	8·6	+0·8	0	0·7	−0·7	12·3	14·8	−2·5
Bombay and Malabar Coast Districts (Madras).	33. Malabar	0·8	0·3	+0·5	11·5	13·7	−2·2	96·7	97·8	−1·1	11·4	6·2	+5·2	120·4	118·0	+2·4
	33A. Travancore	1·9			18·9			80·3			17·6			118·7		
	34. Madras South Central	2·6	0·7	+1·9	11·1	9·3	+1·8	28·9	28·1	+0·8	13·2	7·9	+5·3	55·8	46·0	+9·8
	35. Coorg	0·7			19·3			83·7			12·3			116·0		
	36. Mysore	0·2	0·3	−0·1	10·3	8·8	+1·5	40·8	39·8	+1·0	7·2	4·9	+2·3	58·5	53·8	+4·7
	37. Konkan	0	0·3	−0·3	1·3	2·7	−1·4	82·6	92·0	−9·4	6·1	1·6	+4·5	90·0	96·6	−6·6
	38. Bombay Deccan	0·1	0·4	−0·3	3·3	5·9	−2·6	40·9	45·2	−4·3	8·1	2·2	+5·9	52·4	53·7	−1·3
	39. Hyderabad, North	0·1	0·5	−0·4	1·5	3·7	−2·2	39·4	46·0	−6·6	5·3	2·2	+3·1	46·3	52·4	−6·1
	40. Khandesh	0·9	0·6	+0·3	0·8	1·6	−0·8	35·4	42·1	−6·7	5·6	1·2	+4·4	42·7	45·5	−2·8
Central Provinces and Berar.	41. Berar	0·4	1·2	−0·8	0·9	2·2	−1·3	35·5	40·8	−5·3	5·7	1·3	+4·4	42·5	45·5	−3·0
	42. Central Provinces, West.	0·9	1·4	−0·5	0·6	2·2	−1·6	40·2	48·5	−8·3	4·8	1·3	+3·5	46·5	53·4	−6·9
	43. Central Provinces, Central.	1·6	2·0	−0·4	1·1	2·8	−1·7	40·9	53·1	−12·2	2·2	1·2	+1·0	45·8	59·1	−13·3
	44. Central Provinces, East.	0·2	1·3	−1·1	4·0	4·3	−0·3	45·1	53·6	−8·5	0·9	1·2	−0·3	50·2	60·4	−10·2
Bombay (North)	45. Gujarat	0·4	0·3	+0·1	0·1	0·5	−0·4	34·0	44·2	−10·2	1·5	0·6	+0·9	36·0	45·6	−9·6
	46. Kathiawar and Cutch	0·1	0·3	−0·2	0·3	0·6	−0·3	23·3	29·4	−6·1	0·6	0·6	0	24·3	30·9	−6·6
	47. Sind	0	1·5	−1·5	1·0	1·0	0	8·0	6·2	+1·8	0	0·5	−0·5	9·0	9·2	−0·2
	48. Baluchistan Hills	0·2	6·7	−6·5	2·1	5·0	−2·9	4·3	3·9	+0·4	1·8	3·6	−1·8	8·4	19·2	−10·8
Rajputana and Central India.	49. Central India East	2·3	1·9	+0·4	0·8	1·3	−0·5	38·0	41·6	−3·6	1·0	1·3	−0·3	42·1	46·1	−4·0
	50. Rajputana East, Central India, West.	0·5	1·6	−1·1	1·1	1·9	−0·8	27·1	28·3	−1·2	0·2	1·2	−1·0	28·9	33·0	−4·1
	51. West Rajputana	0	0·8	−0·8	0·5	1·1	−0·6	12·6	13·5	−0·9	0	0·7	−0·7	13·1	16·1	−3·0
Madras	52. East Coast, North	0·3	0·7	−0·4	5·6	6·1	−0·5	47·5	45·9	+1·6	4·5	3·5	+1·0	57·9	56·2	+1·7
	53. Hyderabad, South	0	0·6	−0·6	4·3	4·3	0	36·9	42·5	−5·6	3·2	2·5	+0·7	44·4	49·9	−5·5
	54. Madras, Central	0·3	0	+0·3	5·9	4·7	+1·2	33·1	30·6	+2·5	3·9	4·1	−0·2	43·2	39·4	+3·8
	55. East Coast Central,	0·2	0·8	−0·6	1·6	2·7	−1·1	38·3	28·3	+10·0	12·9	9·1	+3·8	53·0	40·9	+12·1
	56. Do. South	3·6	1·5	+2·1	4·1	4·6	−0·5	35·6	31·1	+4·5	20·4	14·3	+6·1	63·7	51·5	+12·2
	57. Madras, South	5·2	2·3	+2·9	7·8	7·5	+0·3	23·1	18·9	+4·2	19·8	12·5	+7·3	55·9	41·2	+14·7

I.—The cold weather period.—This was a singularly dry period, the driest cold weather season for many years past. No cold weather storm entered India from the Persian area during January. A shallow depression formed over Gujarat on the 7th January and was transferred eastwards on the 8th and 9th, filling up as it advanced. It gave light rain, chiefly in Central India, on the 7th and 8th. February, like January, was characterized throughout by great dryness of the air and absence of cloud and rain. A very feeble depression advanced from Baluchistan across Northern India between the 27th of January and 2nd of February. It gave some cloud but no rain in the plains of Northern India. A shallow depression formed on the 14th February in Gujarat, an area which had been marked by unusually high temperature locally during the previous four days. It extended slowly eastwards on the 16th, apparently filling up, but re-appeared in Gujarat on the 18th and shifted northwards into West Rajputana on the 19th and eastwards on the 20th and 21st and filled up on the 22nd. It gave feebly disturbed weather with duststorms and thunderstorms over Central India, Chota Nagpur, Bihar and Bengal, but the rainfall accompanying the storm was generally very light. A shallow depression appeared in the Persian area on the 25th and passed across Baluchistan and Upper India on the 26th and 27th breaking up against the Punjab hills on the 27th. It gave some snow in Kashmir and light rain in Persia.

The rainfall of the period was more or less largely in defect over nearly the whole of India and Burma. The normal rainfall is less than an inch in Sind, Rajputana, Gujarat and nearly the whole of the Peninsula. Over a considerable portion of that area the precipitation was practically *nil* (less than a tenth of an inch). This was the case in West Rajputana, Sind, Kathiawar and Cutch, Hyderabad (Deccan), the east of the Central Provinces, the Bombay Deccan, Konkan, Mysore and the central coast districts of Madras.

The following gives comparative data for these areas :—

Area.		Rainfall of period, January and February.			
		Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
		Inch.	Inches.	Inches.	
Bombay	Mysore	0·09	0·18	−0·09	−50
	Konkan	0·01	0·18	−0·17	−94
	Bombay Deccan	0·08	0·18	−0·10	−56
	Kathiawar and Cutch.	0·05	0·15	−0·10	−67
	Sind	0	0·53	−0·53	−100
	Baluchistan	0·04	2·93	−2·89	−99
Central Provinces.	Central Provinces East	0·05	0·64	−0·59	−92
Hyderabad	Hyderabad North	0·02	0·24	−0·22	−92
	" South	0	0·27	−0·27	−100
Rajputana	Rajputana West	0	0·29	−0·29	−100
Madras	East Coast North	0·10	0·50	−0·40	−80
	East Coast Central	0·05	0·57	−0·52	−91

The precipitation was in slight excess in the areas which received showers from the two depressions that formed in Gujarat. The following gives data :—

Area.	Rainfall of period, January and February.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inch.	Inch.	
Khandesh	0·16	0·24	+0·21	+88
Gujarat	1·17	0·15	+0·01	+7
Central India East	1·17	0·87	+0·30	+34

The normal rainfall of the period is slight to moderate in amount (ranging between one and seven inches) in the districts of Northern India including the Punjab, United Provinces, Bengal and Assam, and is, on the whole, greatest in the hill and submontane districts. The rainfall was especially scanty and deficient in the hill and submontane districts of Upper India and was less than a tenth of an inch in parts of the United Provinces and the greater part of the Punjab and of Bengal.

The following gives data:—

Area.	Rainfall of period, January and February.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches	Inches.	Inches.	Inches.
Assam Surma	0·29	2·31	−2·02	−87
" Hills	0·33	1·98	−1·65	−83
" Brahmaputra	1·10	2·20	−1·10	−50
Eastern Bengal	0·01	1·42	−1·41	−99
Deltaic "	0	1·43	−1·43	−100
Central "	0·03	1·21	−1·18	−98
North "	0·04	1·02	−0·98	−96
Bengal Hills	0·41	1·55	−1·14	−74
South Bihar	0·28	1·41	−1·13	−80
North "	0·01	1·12	−1·11	−99
Orissa	0·24	1·03	−0·79	−77
United Provinces East	0·37	1·19	−0·62	−52
South Oudh	0·20	1·15	−0·95	−83
North "	0·06	1·29	−1·23	−95
United Provinces Central	0·60	0·99	−0·39	−39
" " West	0·01	1·08	−1·07	−99
" " East Submontane	0·04	1·22	−1·18	−97
" " West "	0·30	2·66	−2·36	−89
" " Hills	0·49	4·84	−4·35	−90

Area.	Rainfall of period, January and February.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inch.	Inches.	Inches.	
South-East Punjab	0·01	1·13	−1·12	−99
South Punjab	0·03	1·08	−1·05	−97
Central Punjab	0·09	2·00	−1·91	−96
Punjab Submontane	0·05	2·90	−2·85	−98
" Hills	0·95	6·55	−5·60	−85
North Punjab	0·08	3·60	−3·52	−98
West "	0	1·04	−1·04	−100

The rainfall was as deficient in Burma generally as in Northern India, as is shown below :—

Area.	Rainfall of period, January and February.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Tenasserim	0·44	0·62	−0·18	−29
Lower Burma Deltaic	0·48	0·21	+0·24	+114
Central Burma	0·05	0·07	−0·02	−29
Upper "	0·16	0·30	−0·14	−47
Arakan	0·01	0·20	−0·19	−95

The southern districts of Madras and Lower Burma had more frequent thundershowers than usual and the rainfall was hence in large excess, relatively to the normal, in Southern India. The following gives data :—

Area.	Rainfall of period, January and February.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches	Inches	Inches	
Lower Burma Deltaic	0·45	0·21	+0·24	+114
Madras East Coast South	3·20	0·90	+2·30	+256
" South	5·43	1·40	+4·03	+288
" South-Central	1·19	0·47	+0·72	+153
" Central	0·15	0·12	+0·03	+25

The following gives the amounts of snowfall registered at five of the stations in the Western Himalayas where the measurements are believed to be most carefully taken :—

District or State.	Station or Pass.	Height in feet above sea-level.	Total snowfall in the month of				Total of period.		Average monthly snowfall of period.	
			January 1902.		February 1902.					
			Ft.	In.	Ft.	In.	Ft.	In.	Ft.	In.
Kashmir	Marree	6,353	Nil		Nil		Nil		11	9
Lahoul	Kailang	10,087	0	11	0	5	1	4	4	7
Chamba	Kalatop	8,600	1	2	Nil		1	2	9	11
Kumaon	Pindari Pass		4	6	1	6	4	0	28	5*
	Ralumdhum Pass		8	0	24	0	32	0	33	3*

* Mean of 5 years.

The average rainfall of the period for the whole of the plains of India was 0·40 inch and was 0·61 inch or 60 per cent. in defect of the normal of the period.

II.—The hot weather period.—The rainfall of the month of March in Northern India occurred solely during the advance of a series of feeble depressions or storms of the cold weather type from the highlands of Persia and Baluchistan eastwards to Bengal. An unusual feature of these depressions was that when they advanced into North-Eastern India they intensified in intensity and the local indraught from the Bay contributed to increase the rainfall due to the high level disturbance. The month was hence unusually rainy in Bengal and the precipitation was largely above the normal in that area. The rainfall of the month was on the other hand, scanty and below the normal over a large part of North-Western and Central India, Baluchistan and the northern half of the Peninsula. In Southern India the rainfall was larger in amount than usual accompanying series of thunderstorms which occurred when stronger north-east winds than usual were blowing across the coast.

The chief periods of rainfall during the month were :—

(1) The 1st and 2nd, when light to moderate showers fell in Kashmir and the Punjab hills.

(2) The 5th to the 8th, when moderate rain or snow occurred in the Kashmir and Punjab Himalayas.

(3) The 12th, 13th and 14th, when Bengal obtained moderate to heavy rain and Assam moderate rain.

(4) The 14th to the 23rd. Baluchistan, Kashmir, the greater part of the Punjab and the adjacent districts of the United Provinces received light to moderate showers from the 14th to the 19th and Bengal and Assam moderate rain from the 15th to the 23rd. This rainfall was most general from the 19th to the 23rd, when moderate to heavy rain was received over nearly the whole of North Eastern India.

(5) The 24th to the 29th. Baluchistan received rain from the 24th to the 26th, Kashmir on the 26th and 27th, the greater part of the Punjab on the 27th and 28th and

the Assam Valley on the 28th and 29th. Southern India obtained a moderately heavy burst of rain from the 27th to the 29th, during which period the rapid rise of pressure in Bengal following the filling up of the preceding disturbance gave strong northeast winds on the Madras coast.

The rainfall of the month was a tenth of an inch or less in 25 out of the 56 meteorological rainfall divisions, between a tenth of an inch and half an inch in nine divisions and between half an inch and an inch in five divisions. The area of rainfall less than an inch in amount included Burma (excepting Tenasserim), Orissa, Chota Nagpur, South Bihar, the plains of the United Provinces, Punjab (except the northern and hill districts), Bombay, Berar, the Central Provinces, Central India, Rajputana and North and Central Madras. It was less than a tenth of an inch in Bombay, Central Madras, the Central Provinces, Berar, Central India, Rajputana and the greater part of the United Provinces and Burma. The rainfall ranged between one and four inches in the districts, for which data are given below:—

Division.	Rainfall.			
	Average actual, March 1902.	Average normal, March.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	1·17	0·82	+0·35	+43
Eastern Bengal	1·28	2·81	—0·53	—23
Assam Hills	2·72	4·12	—1·40	—34
Assam Brahmaputra	3·91	3·56	+0·35	+10
Deltaic Bengal	2·69	1·44	+1·25	+87
Central "	1·29	0·80	+0·49	+61
North "	3·93	1·26	+2·67	+212
Bengal Hills	2·85	1·71	+1·14	+67
Bihar (North)	1·53	0·39	+1·14	+292
United Provinces Hills	1·03	1·39	—0·36	—26
Punjab Hills	3·82	3·44	+0·38	+11
Punjab (North)	1·69	1·96	—0·27	—14
Malabar	1·22	0·52	+0·74	+140
Travancore	2·34	?	?	?
Coorg	1·36	?	?	?

The month of April was very dry over the greater part of the interior of India and more disturbed and rainy than usual in Bengal and Assam, the east of the Central Provinces, the hill and submontane districts of Upper India, Ganjam and Mysore. The rainfall in Northern India accompanied the advance of a series of depressions from the hot weather sink in Upper India (Sind) to Bengal. These depressions in April usually advance due east and break up against the Simla and Mussooree hills. In April 1902 they advanced along more southerly tracks to Bihar and Bengal. Their march was accompanied by duststorms in North-Western India and by more or less severe thunderstorms in North-East India. In Mysore and Ganjam, on the other hand, the rainfall was due to local storms such as usually occur in these areas in the hot weather period. Moderate to heavy snow fell during the month on the higher ranges of the Kashmir and Punjab Himalayas.

The rainfall of the month was actually or practically *nil* (*i.e.*, less than a tenth of an inch) over the area including Gujarat, Kathiawar and Cutch, Sind, Central India, Rajputana, Khandesh, the Konkan, the eastern and central districts of the United Provinces and South Oudh, that is in eleven out of the 56 rainfall divisions. It was less than one inch and over a tenth of an inch in 33 divisions including Lower and Central Burma, the greater part of Madras, the Central Provinces, Berar, Bombay, the greater part of the Punjab, the United Provinces, Bihar and Chota Nagpur.

The following gives a brief summary of the data for these areas:—

Division.	Rainfall.			
	Average actual, April 1902.	Average normal, April.	Variation of actual from normal, April 1902.	Percentage variation from normal.
	Inch.	Inches.	Inches.	
Burma (Central and Lower)	0·21	1·39	—1·18	—85
Bihar	0·64	0·35	+0·09	+26
Chota Nagpur	0·95	0·85	+0·10	+12
United Provinces of Agra and Oudh	0·17	0·17	0	0
Punjab	0·61	0·68	—0·07	—10
Central Provinces	0·49	0·35	+0·14	+40
Berar	0·31	0·24	+0·07	+29
Bombay	0·13	0·32	—0·19	—59
Baluchistan Hills	0·20	0·48	—0·28	—58
Madras, Central	0·79	0·61	+0·18	+30
" East Coast Central	0·46	0·46	0	0
" " South	0·16	0·92	—0·76	—83

It ranged between one and two inches in South and South-Central Madras, East Coast North, Malabar, Mysore, the North Punjab and Central Provinces East, where it was

generally in slight excess. The following data show the character of the rainfall in these areas.—

Area.	Rainfall.			
	Average actual, April 1902.	Average normal, April.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Madras South	1·04	2·22	−1·18	−53
" East Coast North	1·59	0·85	+0·74	+87
" South-Central	1·25	1·70	−0·45	−26
Malabar	1·83	3·35	−1·52	−45
Mysore	1·76	1·22	+0·54	+44
North Punjab	1·89	1·60	+0·29	+18
Central Provinces East	1·13	0·50	+0·63	+126

The rainfall of the month was unusually heavy in Bengal and Assam which, as in March, obtained more frequent and heavier falls than usual. The rainfall at several stations in Bengal was in fact larger in amount than has been previously recorded in the month of April.

The following examples show clearly the unusual character of the precipitation:—

Station.	Total rainfall in April 1902.	Highest total rainfall previously recorded in April.	Year in which recorded.
	Inches.	Inches.	
Barisal	21·01	6·91	1893
Dacca	14·00	9·37	1888
Chittagong	13·24	11·66	1892
Mymensingh	11·60	11·22	1884

The following gives comparative data for this area of increased rainfall:—

Division.	Rainfall.			
	Average actual, April 1902.	Average normal, April.	Variation of actual from normal, April 1902.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Assam (Surma)	20·14	13·42	+6·72	+50
" (Hills)	12·83	8·00	+4·83	+60
" (Brahmaputra)	11·28	8·09	+3·19	+39
Eastern Bengal	13·52	4·24	+9·28	+219
Deltaic "	5·88	2·31	+3·57	+155
Central "	3·71	1·41	+2·30	+163
North "	4·85	3·97	+0·88	+22
Bengal Hills	5·75	4·35	+1·40	+32

The rainfall of the month of May was less than an inch over the greater part of the Punjab and United Provinces, Bombay, Rajputana, Central India, Berar, the Central Provinces and the greater part of the Deccan. It averaged less than a tenth of an inch in Berar, Gujarat and Kathiawar and the central and western divisions of the United Provinces. It exceeded two inches in three areas, *viz.*, 1st Burma and Tenasserim, 2nd Bengal, Bihar and Assam and 3rd Southern India, including Malabar, Travancore, Coorg, South and South-Central Madras and Mysore.

The first area including Burma and Tenasserim received heavy rain from the cyclonic storm of the first week of the month. This storm formed on the 4th over the north of the Andaman sea and passed into Lower Burma on the 6th and Central Burma on the 7th. It gave very heavy downpours in Lower Burma, the most noteworthy being a fall of 12·48 inches at Wakema on the 6th. Frequent showers fell during the remainder of the month, more especially in Tenasserim and Lower Burma.

The rainfall of the month was unequally distributed over the province, being in moderate to large excess in Tenasserim, Lower and Central Burma and in slight to considerable defect in Upper Burma and Arakan.

The following gives data for the five divisions of the province:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, May 1902.	Average normal, May.	Variation of actual from normal, May 1902.	Percentage variation from normal.	Average actual, May 1902.	Average normal, May.
	Inches.	Inches.	Inches.			
Tenasserim	29·20	23·02	+6·18	+27	21·8	18·7
Lower Burma Deltaic	16·23	12·07	+4·16	+34	15·3	14·7
Central Burma	8·85	6·79	+2·06	+30	9·9	9·4
Upper Burma	4·62	5·93	−1·31	−22	7·7	8·4
Arakan	9·08	12·49	−3·41	−27	10·1	12·0

Series of thunderstorms giving more or less heavy rain occurred almost daily throughout the month in the second area, including Bihar, Bengal and Assam. The total rainfall of the month was in moderate to considerable excess over the greater part of Bengal, but was in moderate defect in Assam.

The following gives data for the latter area:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, May 1902.	Average normal, May.	Variation of actual from normal.	Percentage variation from normal.	Average actual May, 1902.	Average normal, May.
	Inches.	Inches.	Inches.			
Assam Surma	15·38	18·00	−2·62	−15	16·7	16·1
" Hills	11·12	15·05	−3·93	−26	15·6	15·2
" Brahmaputra	7·97	12·03	−4·06	−34	12·0	14·5

The rainfall of the month was unusually light in the Khasi and Jantia Hills, as is shown by the following data for Cheerapoonjee and Jowai:—

Station.	Rainfall.			
	Average actual, May 1902.	Average normal, May.	Variation of actual from normal, May 1902.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Cherrapoonjee	27·52	51·30	—23·78	—46
Jowai	12·00	26·18	—14·18	—54

The following gives comparative data for the various divisions of the Bengal Presidency:—

Division.	Rainfall.				Number of rainy days.	
	Average actual, May 1902.	Average normal, May.	Variation of actual from normal, May 1902.	Percentage variation from normal.	Average actual, May 1902.	Average normal, May.
	Inches.	Inches.	Inches.			
Eastern Bengal	13·08	10·45	+2·63	+25	13·8	10·9
Deltaic "	9·45	6·16	+3·29	+53	10·1	8·0
Central "	5·35	4·57	+0·78	+17	7·5	6·2
North "	11·71	10·65	+1·06	+10	12·0	11·5
Bengal Hills	7·80	8·45	—0·65	— 8	14·3	13·6
North Bihar	3·64	3·07	+0·57	+19	4·5	4·2
South "	0·83	1·42	—0·59	—42	1·9	2·1
Chota Nagpur	2·31	2·22	+0·09	+ 4	4·5	3·7
Orissa	3·22	3·74	—0·52	—14	6·4	5·1

The third area, *viz.*, Southern India, also obtained frequent thundershowers during the month. As there was some delay in the establishment of the monsoon, the Malabar coast districts did not receive the heavy rain in the last week of the month which usually ushers in the monsoon. The following gives data of rainfall in these areas:—

Area.	Rainfall.			
	Average actual, May 1902.	Average normal, May.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Malabar	4·32	7·08	—2·76	—39
Travancore	4·86			
Coorg	5·13			
Mysore	4·04	3·65	+0·39	+11
Madras South	2·04	1·71	+0·33	+19
" South-Central	5·05	3·68	+1·37	+37

The chief features of the precipitation of the period were as follows:—

(1) Increased rainfall in Tenasserim, Lower and Central Burma, Cachar, Bengal, Orissa and North Bihar. The rainfall was large in amount over the greater part of the area and exceeded ten inches in seven out of the ten rainfall divisions. The following gives comparative data:—

Area.	Rainfall of period, March to May.				Number of rainy days, March to May.	
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.
	Inches.	Inches.	Inches.			
Tenasserim	32·36	27·83	+4·53	+16	27·1	25·1
Lower Burma Deltaic	16·49	14·08	+2·41	+17	15·7	17·5
Central "	9·00	7·76	+1·24	+16	10·2	11·1
Assam Surma	40·19	39·17	+1·02	+ 3	39·6	37·4
Eastern Bengal	28·38	17·00	+11·38	+67	29·1	18·9
Deltaic "	18·02	9·91	+8·11	+82	21·7	13·8
Central "	10·35	6·78	+3·57	+53	16·5	10·0
North "	20·49	15·88	+4·61	+29	25·1	18·5
Bihar North	5·94	4·26	+1·68	+39	9·2	6·3
Orissa	7·27	6·07	+1·20	+20	12·7	9·2

(2) The rainfall was practically normal in amount or in slight defect in South Bihar, Chota Nagpur, the United Provinces and the Punjab. The following gives a summary of the data:—

Area.	Rainfall of period, March to May.				Number of rainy days of period, March to May.	
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.
	Inches.	Inches.	Inch.			
South Bihar	1·73	2·04	—0·31	—15	3·7	3·5
Chota Nagpur	3·77	3·80	—0·03	—1	7·7	6·9
United Provinces of Agra and Oudh.	0·94	1·21	—0·27	—22	2·2	2·6
Punjab	2·08	2·34	—0·26	—11	5·1	4·6

(3) The deficiency was small in amount absolutely but large, relatively to the small average or normal amount of

the period, in the divisions for which data are given in the following table:—

Area.	Rainfall of period, March to May.				Number of rainy days of period, March to May.	
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.
	Inch.	Inches.	Inch.			
Rajputana	0·26	0·59	—0·33	—56	0·8	1·5
Central India	0·26	0·52	—0·26	—50	0·8	1·3
Central Provinces	0·74	1·40	—0·66	—47	1·9	3·1
Berar	0·36	0·98	—0·62	—63	0·9	2·2
Khandesh	0·39	0·83	—0·44	—53	0·8	1·6
Kathiawar and Cutch	0·09	0·29	—0·20	—69	0·3	0·6
Gujarat	0·04	0·25	—0·21	—84	0·1	0·5

(4) The rainfall was also more or less in defect in the divisions of the Peninsula, for which data are given below, and which receive occasional rain from thunder-showers giving totals averaging for the period from one to three inches:—

Area.	Rainfall of period, March to May.				Number of rainy days of period, March to May.	
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.
	Inches.	Inches.	Inches.			
Konkan	0·62	1·99	—1·37	—69	1·3	2·7
Bombay Deccan	1·71	3·10	—1·39	—45	3·3	5·9
Hyderabad	1·06	1·83	—0·77	—42	2·9	4·0
Madras Central	2·36	2·46	—0·10	—4	5·9	4·7
„ East Coast Central	0·77	1·91	—1·14	—60	1·6	2·7
„ „ „ South	2·51	3·39	—0·88	—26	4·1	4·6

(5) The total rainfall of the period varied irregularly in the southern half of the Peninsula, but was generally in considerable excess except in Malabar. The following gives data:—

Area.	Rainfall of period, March to May.				Number of rainy days of period, March to May.	
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual.	Average normal.
	Inches.	Inches.	Inches.			
Malabar	7·42	10·96	—3·54	—32	11·5	13·7
Travancore	11·07				18·9	
Coorg	10·89				19·3	
Mysore	5·98	5·18	+0·80	+15	10·3	8·8
Madras South	5·18	4·92	+0·26	+ 5	7·8	7·5
„ South-Central	7·01	5·90	+1·10	+19	11·1	9·3

(6) The chief features of the rainfall distribution of the period were (1) the excessive rainfall over a considerable portion of North-Eastern India, (2) the increased rainfall in Southern India, (3) the deficiency over the remainder of India, including nearly the whole of North-Western and Central India and the northern half of the Peninsula.

(7) The rainfall was abnormally heavy in certain districts of Bengal, in which the rainfall was more than 50 per cent. in excess. Data are given below:—

District.	Rainfall of period, March to May.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Midnapore	13·54	8·17	+ 5·37	+ 66
Hooghly	12·72	8·94	+ 3·78	+ 63
Howrah	14·23	7·93	+ 6·30	+ 79
24-Pargannas	14·07	8·51	+ 5·56	+ 65
Calcutta	16·79	8·28	+ 8·51	+103
Murshidabad	12·29	7·68	+ 4·61	+ 60
Jessore	22·05	12·25	+ 9·80	+ 80
Khulna	18·13	10·56	+ 7·57	+ 72
Dacca	33·77	16·80	+16·97	+101
Faridpur	24·70	14·41	+10·29	+ 71
Backergunge	29·46	13·50	+15·96	+118
Noakhali	31·15	17·78	+13·37	+ 75

(8) The average rainfall of the period for the whole of the plains of India was 4·83 inches and was 0·33 inch or 7 per cent. in excess of the normal of the period.

III.—The south-west monsoon period, June to September.

June.—The Malabar and Konkan Coast districts obtained light to moderate thundershowers during the first six days of the month. The monsoon set in on the South Konkan Coast on the 7th and extended rapidly from the coast into the interior. Series of thundershowers occurred in Berar, the Central Provinces and Central India between the 8th and 15th. A storm formed on the 9th and 10th in front of the advancing monsoon current in the angle between the Konkan and Kathiawar Coasts. It advanced north-westwards parallel to the coast and passed into South Baluchistan on the afternoon of the 16th. The wave of the monsoon winds, which accompanied the storm, gave the first burst of monsoon rains to Kathiawar and Gujarat between the 12th and 16th and to Sind from the 15th to 18th. An important effect of the storm was to draw off a large volume of the monsoon current from the Konkan and Malabar Coasts, in consequence of which the rainfall in these areas, although general during the period from the 9th to the 16th, was not so heavy as is usually the case during the first burst of the monsoon. The dispersion of the storm was followed by the establishment of remarkable high pressure conditions in Western India and the neighbouring sea area and by a rapid decrease of air movement in the western half of the equatorial reg on and the east of the Arabian Sea. These conditions lasted from the 17th to the 29th, during which period the rainfall was unusually light on the West Coast and in the interior of the peninsula and occurred chiefly as local showers during thunderstorms. North-West India received moderately heavy rain between the 19th and the 25th from a strong influx of humid winds across the Sind and Kathiawar coasts accompanying much steeper baric gradients than usual. Large changes occurred in the east of the Arabian Sea in the last week of the month which resulted in the re-establishment of monsoon conditions on the Malabar and South Konkan Coasts.

Bengal obtained frequent showers during the first twelve days of the month. The advance of monsoon winds up the Bay began in the second week of the month. A storm formed in the east of the Bay off the Arakan Coast on the 11th and 12th, and advancing rapidly along a curved path lay over the head of the Bay on the morning of the 13th. It crossed the Bengal Coast during the day and passed into East Bengal, where it broke up before the morning of the 15th. Moderate to heavy rain commenced to fall in North and East Bengal on the 13th and continued during the next week. The Chittagong district obtained heavy downpours on the 14th and 15th and the Jalpaiguri and Cooch Behar districts between the 18th and 20th, falls ranging from 6 to 11 inches in 24 hours occurring at several stations. Moderate rain occurred in North Bihar from the 15th to the 18th, but the current failed to extend into the Gangetic Plain. The rainfall diminished rapidly in Bengal on the 21st and was light and local during the next six days. During this period rain in increasing amounts fell in Tenasserim, indicating a stronger set of the current than usual to that area. The abnormal conditions giving rise to this diversion of the current passed away on the 28th and 29th and heavy general rain re-commenced in Bengal on the 30th.

The following gives the dates of the commencement of the south-west monsoon rains of 1902 in different parts of India:—

Province or Division.	Date of commencement of the monsoon rains in 1902.
Malabar	8th June
South Konkan	7th "
North "	12th "
West Rajputana	19th "
East "	20th "
Bengal	13th "
Bihar	16th "
United Provinces West	20th "
Punjab	20th "

There was no heavy burst of rain during the month in the Central Provinces, Central India, Chota Nagpur and the east of the United Provinces, such as usually marks the commencement of the monsoon, the rainfall received in these areas in the second and fourth weeks being due to feeble monsoon influences.

The chief features of the monsoon currents during the month were:—

(1) The delay in the establishment of the Bombay current of nearly a week.

(2) The weakness of the Bombay current was shown partly by its failure to advance as a whole into the interior (*i.e.*, the Central Provinces and Central India) and partly by its retreat from the land area during the period from the 18th or 19th to the end of the month.

(3) The determination of the Bay current more largely than usual to Burma and its failure to advance up the Gangetic plain beyond Bihar.

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

(1) Slight to moderate deficiency over the whole of Burma, except Upper Burma, where the total precipitation of the month was 23 per cent. above the normal.

(2) Slight to moderate excess in East Bengal and the Assam plains and slight to large defect in the Assam hills and the remainder of Bengal. The deficiency was, relatively to the normal, least in the Bengal hills (2 per cent.) and greatest in Chota Nagpur (67 per cent.)

(3) Moderate to large defect in the United Provinces, Central India, East Rajputana, the Central Provinces,

Berar, Gujarat and Kathiawar. The following gives data for the rainfall divisions in those areas:—

Division.	Number of rainy days.		Rainfall.		
	Avrage actual, June 1902.	Variation of actual from normal, June 1902.	Average actual, June 1902.	Variation of actual from normal, June 1902.	Percentage variation from normal.
			Inches.	Inches.	
Orissa . . .	7·8	−2·6	5·15	−4·27	−45
Chota Nagpur . .	6·2	−4·4	3·08	−6·18	−67
Bihar (South) . .	4·1	−3·8	3·19	−3·77	−54
„ (North) . .	5·9	−3·3	5·47	−3·51	−39
United Provinces (East)	1·5	−4·5	0·77	−4·25	−85
Oudh (South) . .	2·0	−3·3	0·88	−3·98	−82
„ (North) . .	2·8	−3·5	1·70	−4·02	−70
United Provinces (Central).	1·8	−3·3	0·64	−3·79	−86
United Provinces (West).	4·5	+0·9	2·11	−0·56	−21
United Provinces (Submontane East).	3·2	−3·9	1·97	−4·89	−70
United Provinces (Submontane West).	4·1	−2·0	3·78	−1·93	−34
United Provinces Hills	6·4	−4·5	4·62	−4·18	−48
Khandesh . . .	4·4	−3·6	2·65	−3·05	−54
Berar . . .	3·3	−4·9	1·54	−4·13	−73
Central Provinces (West).	3·3	−5·4	1·34	−5·79	−81
Central Provinces (Central).	3·1	−5·9	1·41	−6·38	−82
Central Provinces (East).	3·6	−6·0	1·43	−7·33	−84
Gujarat . . .	3·2	−3·8	1·40	−5·46	−80
Kathiawar and Cutch .	1·8	−2·7	0·72	−3·49	−83
Central India . .	2·5	−4·4	1·09	−5·71	−84
Rajputana (East) . } Central India West . }	3·2	−1·1	1·54	−1·27	−45

(4) Slight to moderate excess over the greater part of the Punjab plains, Sind, West Rajputana and Baluchistan, in which areas the normal fall of the period is small, not exceeding three inches.

(5) Deficiency over the whole of the Peninsula, with the exception of Central Madras and the East Coast Central, where the falls were 26 and 33 per cent. above the respective normals. The deficiency was most marked in Malabar, where it averaged 15·21 inches or 43 per cent. and the Konkan, where it was 40 per cent.

July—Strong monsoon winds set in on the South Konkan and Malabar Coasts, on the 1st and 2nd and advancing rapidly into the interior were established over the Central Provinces, Central India and the Deccan by the 5th. A shallow depression formed between the Konkan and Kathiawar Coasts on the 5th and drifted northwards during the next sixty hours into Kathiawar, where it remained practically stationary until the 10th, when it filled up and disappeared. It gave a moderate burst of rain in Gujarat and Kathiawar. The Arabian Sea current, as judged by the amount of rainfall, was weak on the 11th and 12th, but strengthened rapidly on the 13th, and gave general and moderate to heavy rain in Orissa, the Central Provinces and Central India from the 13th to the 15th. The winds fell off on the West Coast on the 17th and following days and were below their normal strength during the remainder of the month. The rainfall due to the current was hence chiefly restricted to the coast districts, the Deccan and Central Provinces.

The rainfall increased in Bengal during the first week of the month as in the West Coast districts and extended quickly up the Gangetic Plain, so that on the 5th fairly general rain was falling over the whole of Northern and Central India and the Deccan.

The current in the Bay also strengthened considerably on the 11th and 12th and the interaction between the two currents initiated a storm at the head of the Bay on the 13th and 14th. It advanced west-north-westward across Chota Nagpur into the eastern districts of Central India and then recurving to north passed into Rohilkhand and the neighbouring districts where it broke up on the 19th. The storm gave a moderate to heavy burst of rain to the greater part of Northern and Central India from the 17th to the 19th. Fairly general rain continued in North-Eastern and Central India on the 20th and 21st. A small depression formed in the east of the United Provinces on the latter day and advancing very slowly along a curved path broke up at the foot of the Nepal Himalayas on the 24th. Although a feeble disturbance it gave general and moderately heavy rain to the greater part of Northern and Central India. A storm, the second of the month, began to form in Lower Bengal and the north-west of the Bay on the 27th. It advanced through Chota Nagpur on the 28th, the east of the United Provinces on the 29th, into Bundelkhand and the neighbouring districts on the 30th and 31st. It determined a moderate to heavy burst of rain to the whole of Extra Tropical India, east of the meridian of 74° E.

The preceding remarks indicate that the Bombay current was weak during the greater part of the month and hence the rainfall over the greater part of the area dependent upon it, including the whole of the Bombay Presidency, the western and central districts of the Central Provinces, West Rajputana and the greater part of the Punjab was more or less largely below the normal. The following gives data:—

Division.	Rainfall.			
	Average actual, July 1902.	Average normal, July.	Variation of actual from normal, July 1902.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Punjab South	3·15	4·74	−1·59	−34
„ Central . . .	3·82	5·13	−1·31	−26

Division.	Rainfall.			
	Average actual, July 1902.	Average normal, July.	Variation of actual from normal, July 1902.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Punjab Submontane	6·92	8·37	−1·45	−17
„ Hills	11·38	15·46	−4·08	−26
„ North	4·11	4·66	−0·55	−12
„ West	1·53	2·56	−1·03	−40
Rajputana West	1·52	3·88	−2·36	−61
Sind	0·24	2·40	−2·16	−90
Gujarat	12·28	16·46	−4·18	−25
Kathiawar and Cutch	4·31	10·68	−6·37	−60
Konkan	37·89	40·58	−2·69	− 7
Bombay Deccan	7·76	8·80	−1·04	−12
Khandesh	8·36	8·71	−0·35	− 4
Central Provinces West	10·79	13·38	−2·59	−19
„ „ Central	13·96	16·62	−2·66	−16

The rainfall was also in moderate defect over the whole of Madras excepting Malabar and the northern coast districts, but the normal rainfall is not large in that area, and the variations were not important.

The rainfall of the month was, on the other hand, more or less in excess in Burma, Bengal, the United Provinces, Central India, the South-East Punjab, East Rajputana, the east of the Central Provinces, Berar, Malabar, Mysore and the northern coast districts of Madras, the greater part of which areas receive their rainfall from the Bay current. The rainfall of the month was in slight defect in Assam. The following gives data for these areas of increased rainfall.

Area.	Rainfall.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma	32·63	27·05	+5·58	+21
Bengal	19·34	16·04	+3·30	+21
Orissa	19·52	11·99	+7·53	+63
Chota Nagpur	17·21	14·24	+2·97	+21
Bihar South	13·99	12·74	+1·25	+10
United Provinces of Agra and Oudh.	15·22	11·60	+3·62	+31
South-East Punjab	7·72	6·40	+1·32	+21
East Rajputana and Central India West.	11·02	8·08	+2·94	+36
Central Provinces East	16·76	16·20	+0·56	+3
Berar	10·87	9·35	+1·52	+16
Malabar	56·80	35·45	+21·35	+60
Mysore	7·54	6·44	+1·10	+17
Madras East Coast North	7·56	7·25	+0·31	+ 4

August.—Weather was showery over by far the greater part of the country at the beginning of the month, but an unfavourable change (due to a large decrease in the strength of the Bombay current) occurred on the 3rd, when a complete break set in over practically the whole of North-Western and Central India and the Deccan and held until the 18th or 19th. Burma, Bengal and Assam, on the other hand, obtained steady daily rain during this period and South India and the Circars very favourable showers.

The monsoon currents, more especially the Bombay current, strengthened after the 19th and gave fairly general and abundant rain during the remainder of the month. A series of three storms formed in rapid succession over the Bay during this short period and exercised an important influence on the distribution of rainfall.

The first storm of the series crossed the Ganjam Coast on the 19th and advanced through the Central Provinces, Central India and South Rajputana into Sind, where it filled up on the 24th. It gave a moderate burst of rain to the Central Provinces, Central India, Rajputana and Sind and an excessive downpour in Gujarat and Kathiawar.

The second storm of the series formed on the 22nd and 23rd and advanced by a somewhat more northerly course than its predecessor. It passed through Chota Nagpur, Central India and Central Rajputana and disappeared in West Rajputana on the 31st. It gave moderately heavy rain over the greater part of Northern and Central India and heavy cyclonic downpours in Gujarat.

The third storm of the series originated on the 29th and 30th, and was approaching the Orissa Coast on the 31st, on which day moderate rain was falling over the whole of Burma, North-East India and the Peninsula. These storms were, during their formation and earlier stages, maintained almost solely by the Bengal current, and in their later stages by the Arabian Sea current. As usually happens under such circumstances, the Bay current fluctuated considerably in strength during the period, being above the normal strength in the north of the Bay during the formation of each storm and weaker than usual after its passage inland. Hence the weather was exceedingly variable in North-East India during this period, intervals of fine weather alternating with periods of moderate rain.

The distribution of rainfall during the month was hence determined by the following factors:—

(1) The weakness of the currents during the first nineteen days, during the greater part of which period an almost complete break obtained over nearly the whole of North-Western and Central India and the Deccan. A similar prolonged break obtained in the first three weeks of August 1883.

(2) The abnormal pressure conditions which determined the Bay current more largely than usual to North Bengal and Assam during the first two weeks of the month.

(3) The prevalence of strongly-marked monsoon conditions between the 20th and the end of the month.

(4) The tracks and intensity of the two storms which marched rapidly across Northern India. A remarkable feature of these storms was the torrential downpours they gave in Gujarat and Kathiawar.

The rainfall of the month was more or less considerably in excess in the following areas:—

(1) North Bengal, Orissa, Bengal Hills, Assam (Brahmaputra and Hills) and Upper Burma. The excess was greatest in Assam Brahmaputra, where it averaged 22 per cent. of the normal. The following gives data:—

Area.	Rainfall.			
	Average actual, August 1902.	Average normal, August.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Upper Burma	8·21	7·28	+0·93	+13
Assam Brahmaputra	18·52	15·18	+3·34	+22
" Hills	25·62	23·04	+2·58	+11
North Bengal	20·34	17·58	+2·76	+16
Bengal Hills	24·25	22·76	+1·49	+ 7
Orissa	12·64	12·21	+0·43	+ 4

(2) Gujarat, Kathiawar, Cutch and Sind. The excess in these areas was due solely to heavy cyclonic rainfall during the last ten days of the month and was most marked in Gujarat, in which it averaged 43 per cent.

The following gives data:—

Area.	Rainfall.			
	Average actual, August 1902.	Average normal, August.	Variation of actual, from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Gujarat	14·02	9·79	+4·23	+43
Kathiawar and Cutch	8·59	6·75	+1·84	+27
Sind	8·44	8·21	+0·23	+10

(3) The whole of Madras with the exception of Malabar and the central and southern districts. The excess in that area ranged from 21 per cent. in East Coast South to 51 per cent. in East Coast Central. The following table gives data:—

Area.	Rainfall.			
	Average actual, August 1902.	Average normal, August.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Madras South-Central	4·72	3·49	+1·23	+35
" East Coast North	10·17	7·51	+2·66	+35
" " Central	5·23	3·47	+1·76	+51
" " South	6·95	4·99	+1·96	+21

The rainfall of the month was below the normal over the remainder of the country including the greater part of the Punjab, Rajputana, the United Provinces, Bihar and Chota Nagpur. The deficiency was slight to moderate in amount except in the divisions, for which data are given in the following table:—

Division.	Rainfall.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Oudh South	5·45	11·19	—5·74	—51
United Provinces Central	4·30	10·55	—6·25	—59
" East	6·10	11·39	—5·29	—46
" East Submontane	6·47	11·69	—5·22	—45
Punjab Submontane	4·53	8·25	—3·72	—45
" Hills	9·17	16·35	—7·18	—44
Rajputana East and Central India West	4·28	7·43	—3·15	—42

The rainfall of the month was hence in serious defect in South Oudh and the central districts of the United Provinces, which obtained barely half their normal amounts.

September.—The general rainfall of India was in excess of the normal. Four cyclonic storms affected the weather over India during the month.

The first storm which was forming at the end of August in the north-west angle of the Bay advanced westwards to Gujarat and South Rajputana on the 4th and filled up in Sind on the 5th. It gave a heavy burst of rainfall in North Bombay, Central India, South-West Rajputana and the Central Provinces.

The second storm began to form in the north of the Bay on the 5th. It advanced slowly north-westwards into the central districts of the Gangetic Plain where it filled up on the 13th. It gave very heavy rain to the United Provinces and Bihar.

A shallow depression formed over Gujarat during a period of advance of strong monsoon winds across the West Coast on the 18th. Heavy rain fell in Gujarat, Kathiawar and South-West Rajputana from the 18th to the 20th or 21st.

The fourth depression or storm of the month was initiated in the north-west of the Bay on the 21st and 22nd. It advanced rapidly during the next three days in a north-north-westerly direction to North Bihar, where it filled up on the 26th. Orissa, Chota Nagpur, Bihar and Bengal received a heavy burst of rain. The Darjeeling district obtained an excessive downpour on the 27th, when the storm was filling up as is shown below :—

District.	Station.	Date.	Rainfall during 24 hours preceding 8 A.M. of date.
			Inches.
Darjeeling	Mongpoo	27th	14·87
	Darjeeling	"	12·20
	Kalimpong	"	11·68
	Kurseong	"	11·45

The rainfall of the month was generally in slight to moderate excess in North-Eastern India and Burma, as is shown below :—

Area.	Rainfall.			
	Average actual, September 1902.	Average normal, September.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma	17·97	16·34	+1·63	+10
Assam	15·87	13·64	+2·23	+16
Bengal	15·68	12·19	+3·49	+29
Bihar	13·31	8·98	+4·33	+48
Chota Nagpur	11·85	8·27	+3·58	+43
United Provinces (excepting the western district)	9·83	·85	+2·98	+44

It was normal or in slight defect in North-Western India, as is shown below :—

Area.	Rainfall.			
	Average actual, September 1902.	Average normal, September.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inch.	
United Provinces West	3·42	4·31	—0·89	—21
" " West Submontane	6·52	6·91	—0·39	—6
Punjab	2·27	2·41	—0·14	—6
Rajputana West	1·96	2·05	—0·09	—4

It was in large excess in North Bombay, and in moderate excess in Central India and East Rajputana. The following gives data :—

Area.	Rainfall.			
	Average actual, September 1902.	Average normal, September.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Gujarat	12·87	6·61	+6·26	+95
Kathiawar and Cutch	8·08	4·41	+3·67	+83
Sind	3·19	0·47	+2·72	+579
Central India East	7·92	6·02	+1·90	+32
Rajputana East, Central India West	4·96	4·03	+0·93	+28

The rainfall was in slight to moderate defect in Berar, the Bombay Deccan and the eastern and western divisions of the Central Provinces, as is shown below :—

Area.	Rainfall.			
	Average actual, September 1902.	Average normal, September.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Berar	4·01	5·94	—1·93	—32
Bombay Deccan	4·93	5·90	—0·97	—16
Central Provinces West	6·73	8·63	—1·90	—22
" East	6·91	7·75	—0·84	—11

It was in large excess on the West Coast, as is shown below :—

Area.	Rainfall.			
	Average actual, September 1902.	Average normal, September.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Konkan	24·22	13·50	+10·72	+79
Malabar	24·04	9·30	+14·74	+158

It varied slightly from the normal over the remainder of the Peninsula. The following gives data :—

Area.	Rainfall.			
	Average actual, September 1902.	Averag normal, September.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Khandesh	6·91	6·59	+0·32	+5
Mysore	5·37	4·82	+0·55	+11
Madras South-Central	3·00	4·63	—1·63	—35
„ East Coast North	7·92	7·59	+0·33	+4
„ Central	6·53	5·30	+1·23	+23
„ East Coast Central	5·68	4·43	+1·25	+28
„ „ South	5·57	5·34	+0·23	+4
„ South	1·70	2·15	—0·45	—21

The following are the chief features of the distribution of the rainfall of the period.

(1) The total rainfall of the south-west monsoon period was in moderate defect in Tenasserim and Lower Burma, as is shown below :—

Division.	Rainfall of period.							
	June to September.				June to October.			
	Average actual, 1902.	Average normal.	Variation of actual, from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches	Inches	Inches		Inches	Inches	Inches	
Tenasserim	149·54	155·13	—5·59	—4	153·98	164·62	—10·64	—6
Lower Burma	74·69	82·38	—7·69	—9	79·81	88·61	—8·80	—10

(2) It was in excess, on the whole, in Bengal and Orissa, but was very irregularly distributed. The following gives data :—

Division.	Rainfall of period.							
	June to September.				June to October.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches	Inches	Inches		Inches	Inches	Inches	
Eastern Bengal	75·91	64·73	+11·18	+17	80·12	70·60	+9·52	+13
Deltaic „	43·11	44·44	—1·33	—3	44·78	48·96	—4·18	—9
Central „	44·42	44·50	—0·08	0	46·26	48·03	—1·77	—4
North „	91·92	77·86	+14·06	+18	95·21	82·54	+12·67	+15
Bengal Hills	117·43	89·33	+28·10	+31	121·17	93·21	+27·96	+30
Orissa	44·10	43·69	+0·41	+1	45·29	49·57	—4·28	—9

(3) It was more or less in defect in Bihar, Chota Nagpur, the United Provinces and Punjab, areas usually chiefly dependent upon the Bay current. This was in part due to the determination of the Bay current to Bengal and Burma in the first half of the monsoon period and in part to the cyclonic storms of the second half withdrawing rain from these regions to the areas covered by the storms. The following gives data :—

Division.	Rainfall of period.							
	June to September.				June to October.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches	Inches	Inches		Inches	Inches	Inches	
Bihar South	35·76	38·74	—2·98	—8	36·44	41·24	—4·80	—12
„ North	43·86	45·26	—1·40	—3	45·30	47·97	—2·67	—6
Chota Nagpur	40·47	41·90	—1·43	—3	41·01	44·71	—3·70	—8
United Provinces East.	35·66	35·00	+0·66	+2	35·96	37·39	—1·43	—4
South Oudh	29·89	33·47	—3·58	—11	29·97	35·13	—5·16	—15
North „	36·08	37·07	—0·99	—3	36·93	38·86	—1·93	—5
United Provinces Central.	27·04	31·51	—4·47	—14	27·14	32·57	—5·43	—17

Division.	RAINFALL OF PERIOD.							
	JUNE TO SEPTEMBER.				JUNE TO OCTOBER.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches	Inches	Inches		Inches	Inches	Inches	
United Provinces West.	22·83	22·24	+0·59	+3	23·04	22·65	+0·39	+2
United Provinces East Submontane.	36·73	39·25	—2·52	—6	37·65	42·19	—4·54	—11
United Provinces West Submontane	37·19	41·63	—4·44	—11	38·02	42·38	—4·36	—10
United Provinces Hills.	46·96	51·91	—4·95	—10	48·05	53·26	—5·21	—10
South-East Punjab	18·20	19·04	—0·84	—4	18·53	19·27	—0·74	—4
South "	10·07	12·90	—2·83	—22	10·28	13·07	—2·79	—21
Central "	12·63	13·45	—0·82	—6	13·00	13·71	—0·71	—5
Punjab Submontane	16·96	23·00	—6·04	—26	17·43	23·32	—5·89	—25
" Hills	29·72	42·66	—12·94	—30	30·64	43·40	—12·76	—29
North Punjab	12·81	12·79	+0·02	0	14·20	13·21	+0·99	+7
West "	5·80	6·17	—0·37	—6	5·97	6·25	—0·28	—4

(4) The rainfall was locally normal in Gujarat and in slight defect in Kathiawar, which received moderate to heavy rain late in the season from three cyclonic storms. The following gives comparative data:—

Division.	RAINFALL OF PERIOD.							
	JUNE TO SEPTEMBER.				JUNE TO OCTOBER.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches	Inches	Inches		Inches	Inches	Inches	
Gujarat	40·57	39·72	+0·85	+2	40·68	40·76	—0·08	0
Kathiawar and Cutch	21·70	26·05	—4·35	—17	21·82	26·64	—4·82	—18

(5) The rainfall of the period was more or less considerably in defect over the greater part of the area dependent on the Bombay current, including Rajputana, Central India, Konkan, Berar, the Central Provinces, the Bombay Deccan and Hyderabad. Comparative data for these areas are given below:—

Division.	RAINFALL OF PERIOD.							
	JUNE TO SEPTEMBER.				JUNE TO OCTOBER.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage Variation from normal.
	Inches.	Inches.	Inches.		Inches.	Inches	Inches.	
Rajputana	15·09	16·50	—1·41	—9	15·35	16·63	—1·28	—8
Central India	32·45	34·68	—2·23	—6	33·24	35·56	—2·32	—7
Central Provinces East.	36·93	46·52	—9·59	—21	37·32	48·56	—11·24	—23
Central Provinces Central.	33·38	46·24	—12·86	—28	34·05	47·91	—13·86	—29
Central Provinces West.	28·00	39·73	—11·73	—30	29·44	41·51	—12·07	—29
Berar	23·23	27·88	—4·65	—17	25·20	29·61	—4·41	—15
Konkan	98·40	105·50	—7·10	—7	102·18	110·02	—7·84	—7
Bombay Deccan	21·62	26·64	—5·02	—19	25·92	31·06	—5·14	—17
Hyderabad North	24·38	30·00	—5·62	—19	26·72	32·59	5·87	—18
" South	19·29	23·16	—3·87	—17	22·34	26·12	—3·78	—14

(6) The southern half of the Peninsula received more frequent rain than usual, as is the usual rule when the Bombay current gives much less rain than the normal over the northern half of its field of extension. The following gives data:—

Division.	RAINFALL OF PERIOD.							
	JUNE TO SEPTEMBER.				JUNE TO OCTOBER.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.		Inches.	Inches.	Inches.	
Malabar	116·46	100·61	+15·85	+16	126·95	109·95	+17·00	+15
Madras Central	14·89	14·81	+0·08	+1	21·15	19·65	+1·50	+8
Madras South Central.	10·84	11·87	—1·03	—9	19·96	18·01	+1·95	+11
Madras East Coast North.	28·43	27·54	+0·89	+3	36·90	34·57	+2·33	+7
Madras East Coast Central.	14·77	11·82	+2·95	+25	30·45	20·50	+9·95	+49
Madras East Coast South.	15·15	14·91	+0·24	+2	26·97	23·17	+3·80	+16
Madras South	4·91	5·70	—0·79	—14	18·15	12·51	+5·64	+45

(7) The rainfall of the period, June to October, averaged 36·45 inches for the whole of India and was 3 per cent. below the normal.

IV The retreating south-west monsoon period. - The rainfall of the first week of the month of October was in chief part determined by a storm which

formed in the north of the Bay on the 1st and 2nd. It advanced across the East Bengal Coast on the evening of the 3rd and broke up in East Bengal on the 4th. It was a storm of only slight intensity. Moderate rain fell in Burma, Bengal and Assam during the period of the storm and the following three days when the Bay current retreated finally from Bengal and Assam, and the dry season commenced in that area.

Very shallow depressions of the cold weather type from the Persian area affected the weather in Upper India on the 5th and 6th, the 14th, the 18th to the 20th, and the 25th and 26th. These feeble disturbances gave light showers in Upper India and light to moderate snow in the Kashmir, Gilgit and Punjab Himalayas.

The weather in the Arabian Sea was unusually disturbed. Two cyclonic storms of considerable intensity formed in that area and passed north-westwards towards the Arabian Coast. The first formed on the 12th and 13th in about Lat. 14° N and Long. 67° E and advanced along a north-west or west-north-west track towards the coast of Arabia near the Kuria Muria Islands which it crossed on the 17th. This storm gave disturbed weather with daily rain in the south and west of the Peninsula from the 12th to the 15th.

The second storm formed on the 27th and 28th in about Lat. 11° N and Long. 64° E and advanced in a north-westerly direction to the north-west of the Arabian Sea and apparently filled up near the south-east coast of Arabia in the vicinity of the Kuria Muria Islands. It gave little or no rain to the south of the Peninsula.

The south-west monsoon current in the Bay recurved about the middle of the month and gave frequent rain to the Coromandel Coast districts. A storm began to form in the south-west of the Bay on the 27th. It marched in a west-north-west direction to the Madras Coast and the centre crossed the coast to the north of Madras on the 28th. It gave a very heavy burst of rain over the southern part of the Peninsula. Falls exceeding nine inches in 24 hours were registered at several stations.

The average actual rainfall of the month was *nil* in Sind, and 0·25 inch or less in South Oudh, the central and western divisions of the United Provinces, the southern and western divisions of the Punjab, Gujarat, Kathiawar, Cutch, Baluchistan and Western Rajputana.

The rainfall of the month in Upper India, although small in amount, was in marked excess. The following gives data :—

Division.	Rainfall.			
	Average actual, October 1902.	Average normal, October.	Variation of actual from normal, October 1902.	Percentage variation from normal.
	Inches.	Inch.	Inch.	
North Punjab	1·39	0·42	+0·97	+231
West „	0·17	0·08	+0·09	+113
Baluchistan Hills	0·17	0·06	+0·11	+183
Rajputana East, Central India West	0·46	0·20	+0·26	+130

The rainfall was in considerable to large defect in North-Eastern India and Burma and the rains terminated a week to three weeks earlier than usual. The following gives variation data of the rainfall of the month :—

Division.	Rainfall.			
	Average actual, October 1902.	Average normal, October.	Variation of actual from normal, October 1902.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Tenasserim	4·44	9·49	—5·05	—53
Lower Burma Deltaic	5·12	6·23	—1·11	—18
Central Burma	3·02	4·58	—1·56	—34
Upper „	3·46	4·44	—0·98	—22
Arakan	5·23	8·50	—3·27	—38
Deltaic Bengal	1·67	4·52	—2·85	—63
Orissa	1·19	5·88	—4·69	—80
Chota Nagpur	0·54	2·81	—2·27	—81
South Bihar	0·68	2·50	—1·82	—73
United Provinces East	0·30	2·39	—2·09	—87
South Oudh	0·08	1·66	—1·58	—95
North „	0·85	1·79	—0·94	—53
United Provinces Central	0·10	1·06	—0·96	—91
United Provinces East Sub-montane.	0·92	2·94	—2·02	—69

The rainfall of the month was less than usual over the northern half of the Peninsula, as shown below :—

Division.	Rainfall.			
	Avarage actual, October 1902.	Average normal, October.	Variation of actual from normal, October 1902.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Central Provinces West.	1·44	1·78	—0·34	—19
„ Central.	0·67	1·67	—1·00	—60
„ East	0·39	2·04	—1·65	—81
Konkan	3·78	4·52	—0·74	—16
Bombay Deccan	4·30	4·42	—0·12	—3
Khandesh	1·47	1·92	—0·45	—23
Gujarat	0·11	1·04	—0·93	—89
Kathiawar and Cutch	0·12	0·59	—0·47	—80

It was on the contrary more or less considerably above the normal in the southern half of Peninsula, chiefly due to the heavy burst of rain which accompanied and followed

the last storm of the month in the Bay. The following gives data :—

Division.	Rainfall.			
	Average actual, October 1902.	Average normal, October.	Variation of actual from normal, October 1902.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Mysore	8·83	5·50	+ 3·33	+ 61
Malabar	10·49	9·34	+ 1·15	+ 12
Madras (South-Central)	9·12	6·14	+ 2·98	+ 49
East Coast North	8·47	7·03	+ 1·44	+ 20
Madras Central	6·26	4·84	+ 1·42	+ 29
East Coast Central	15·68	8·68	+ 7·00	+ 81
" South	11·82	8·26	+ 3·56	+ 43
Madras "	13·24	6·81	+ 6·43	+ 94

November.—Weather was less disturbed in the Bay than usual and no storms formed in that area during the month. The retreating southwest monsoon winds were, however, steadily determined to the Coromandel Coast districts during the month and gave frequent rain to the coast districts and the interior of Southern India. The rainfall was most general from the 1st to the 10th, the 17th to the 22nd and the 27th to the 29th.

Weather was more disturbed than usual in the Persian area. Four depressions formed during the month and passed eastwards through Baluchistan into Upper India. These storms gave snow on the higher elevations of Afghanistan, Baluchistan, Chitral and Kashmir and light showers in the North Punjab. Light to moderate rain was received during the month over Baluchistan and the north-west and north mountain regions. Over a large part of the plains of Northern India the month was practically rainless.

The following gives variation data for the larger province of Northern and Central India.

Area.	Rainfall.			
	Average actual, November 1902.	Average normal, November.	Variation of actual from normal.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Baluchistan	0·22	0·52	—0·30	—58
Punjab	0·09	0·27	—0·18	—67
Sind	0	0·09	—0·09	—100
Rajputana	0	0·19	—0·19	—100
Central India	0·25	0·23	+0·02	+ 9
United Provinces of Agra and Oudh	0·03	0·13	—0·10	—77
Bihar	0·04	0·16	—0·12	—75
Chota Nagpur	0·31	0·37	—0·06	—16
Bengal	0·20	0·59	—0·39	—66

The rainfall was also light over Orissa, the Central Provinces and the Madras Deccan, as is shown below :—

Area.	Rainfall.			
	Average actual, November 1902.	Average normal, November.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Orissa	0·22	1·47	—1·25	—85
Central Provinces East	0·10	0·49	—0·39	—80
" Central	1·25	0·40	+0·85	+213
" West	1·06	0·42	+0·64	+152
Madras Deccan	1·26	2·16	—0·90	—42

Over the remainder of the Peninsula the rainfall varied somewhat irregularly from the normal. It ranged from 4 inches in the Bombay Deccan to 20 inches in the South Coromandel Coast districts. The following gives comparative data for the rainfall divisions included in this area of moderate to heavy rainfall :—

Area.	Rainfall.			
	Average actual, November 1902.	Average normal, November.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Malabar	4·42	3·58	+0·84	+23
Konkan	1·28	0·87	+0·41	+47
Bombay Deccan	1·61	1·16	+0·45	+39
Khandesh	1·34	0·48	+0·86	+179
Gujarat	0·07	0·18	—0·11	—61
Kathiawar and Cutch	0	0·33	—0·33	—100
Mysore	1·70	2·56	—0·86	—34
Hyderabad North	1·86	0·89	+0·97	+109
" South	1·40	1·12	+0·28	+25
Madras South Central	3·41	3·77	—0·36	—10
" East Coast North	1·66	2·71	—1·05	—39
" South	9·68	6·27	+3·41	+54
" East Coast Central	10·53	8·12	+2·41	+30
" " South	9·12	9·20	—0·08	—1

December.—The weather in the Persian area and North-Western India during the first half of the month resembled that of November. Two depressions formed in Persia and advanced eastwards into North-Western India. They gave cloud but no rain in the plains of North-Western India. The higher elevations of Kashmir, Chitral,

and Gilgit obtained light to moderate snow. Weather was disturbed and abnormal in the Arabian Sea. A storm formed in the south to the west of the Laccadives on the 6th and 7th and drifted very slowly north-eastwards to the neighbourhood of the Kathiawar coast on the 12th. It filled up on the 12th and 13th at sea. The west of the Peninsula received fairly general rain during this period. A very feeble disturbance affected the south-west of the Bay from the 14th to the 16th. Although it failed to develop into a cyclonic storm the depression gave moderate rain to Southern India and showers in the Deccan.

The south-west monsoon humid winds withdrew finally from the Bay at the end of the third week of the month.

There was actually or practically no rain during the month over the Punjab, Sind, Rajputana, the United Provinces, Bihar, Bengal (except Deltaic), Assam and Arakan.

The following gives a brief summary of the rainfall data of these provinces for the month:—

Area.	Rainfall.			
	Average actual, December 1902.	Average normal, December.	Variation of actual from normal.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Punjab	0	0·44	—0·44	—100
Sind	0	0·11	—0·11	—100
Rajputana	0·04	0·28	—0·24	—86
United Provinces of Agra and Oudh.	0	0·32	—0·32	—100
Bihar	0	0·11	—0·11	—100
Bengal (except Deltaic)	0·03	0·16	—0·13	—81
Assam	0·05	0·41	—0·36	—88
Arakan	0·05	0·41	—0·36	—88

The rainfall of the month was very largely above the normal over Lower and Central Burma, Deltaic Bengal and the greater part of the Peninsula. The total ranged from half an inch at Bhavnagar Para, Khandwa, Chanda, Chaibassa and Barisal to over 17 inches at Cuddalore. The following table gives comparative data:—

Area.	Rainfall.		
	Average actual, December 1902.	Average normal, December.	Variation of actual from normal.
	Inch.	Inch.	Inch.
Tenasserim	0·83	0·11	+0·72
Lower Burma Deltaic	0·67	0·08	+0·59
Central Burma	0·52	0·17	+0·35
Deltaic Bengal	0·36	0·14	+0·22
Orissa	1·70	0·23	+1·47
Gujarat	0·51	0·04	+0·47
Kathiawar and Cutch	0·33	0·06	+0·27
Berar	1·55	0·28	+1·27
Central Provinces	0·52	0·29	+0·23
Konkan	2·50	0·08	+2·42
Bombay Deccan	4·07	0·24	+3·83
Khandesh	1·30	0·22	+1·08
Mysore	3·23	0·59	+2·64
Malabar	4·86	0·63	+4·23
Madras South-Central	4·29	1·28	+3·01
„ East Coast North	1·03	0·59	+0·44
„ „ Central	6·97	2·07	+4·90
„ „ South	9·02	4·97	+4·05
„ Central	0·76	0·43	+0·33
„ South	5·57	3·55	+2·02

The following is a summary of the more important features of the rainfall of the period:—

(1) The rainfall of the period, November and December was small in amount and in general defect over the whole of Burma and Northern and Central India, as is shown by the following data:—

Area.	Rainfall of period, November and December.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inch.	Inches.	Inch.	
Baluchistan	0·50	1·49	—0·99	—66
Punjab	0·09	0·71	—0·62	—87
Sind	0	0·20	—0·20	—100
Kathiawar and Cutch	0·33	0·39	—0·06	—15
Rajputana	0·04	0·47	—0·43	—91
Central India	0·47	0·64	—0·17	—27
United Provinces of Agra and Oudh.	0·03	0·45	—0·42	—93
Bihar	0·04	0·27	—0·23	—85
Chota Nagpur	0·45	0·59	—0·14	—24
Bengal	0·31	0·74	—0·43	—58
Assam	0·45	1·30	—0·85	—65
Burma	0·80	1·74	—0·94	—54

(2) The rainfall of the period was more or less in excess over nearly the whole of the Peninsula by amounts increasing southwards. The following gives comparative data for the rainfall divisions of the area :—

Area.	Rainfall of period, November and December.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Berar	2·47	0·85	+1·62	+191
Central Provinces East	0·36	0·70	—0·34	—49
„ „ Central	1·57	0·67	+0·90	+134
„ „ West	2·05	0·81	+1·24	+153
Konkan	3·78	0·95	+2·83	+298
Bombay Deccan	5·68	1·40	+4·28	+306
Khandesh	2·64	0·70	+1·94	+277
Gujarat	0·58	0·22	+0·36	+164
Mysore	4·93	3·15	+1·78	+57
Malabar	9·28	4·21	+5·07	+120
Madras South Central	7·70	5·05	+2·65	+52
„ East Coast Central	17·50	10·19	+7·31	+72
„ „ South	18·14	14·17	+3·97	+28
„ South	15·25	9·82	+5·43	+55
Hyderabad North	3·19	1·30	+1·89	+145
„ South	1·73	1·27	+0·46	+36

The year.—The rainfall of the year for the whole of India as determined by the method employed by Mr. Blanford (and which gives the normal annual rainfall as 41·09 inches) averaged 2·05 inches below the normal.

The average rainfall of the Indian area was largely below the normal in the cold weather, considerably above in the retreating south-west monsoon in slight excess in the hot weather and in slight defect in the south-west monsoon period.

The following gives comparative data for the whole of India (excluding Burma and hill divisions) based on the arithmetical means of the actuals and normals for 46 rainfall divisions (irrespective of extent of area):—

Period.	Rainfall.			
	Average actual of year 1902.	Average normal of year.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Cold weather	0·40	1·01	—0·61	—60
Hot weather	4·83	4·50	+0·33	+7
South-west monsoon	36·45	37·65	—1·20	—3
Retreating south-west monsoon	2·34	1·72	+0·62	+36
Whole year	44·02	44·89	—0·87	—2

The rainfall was practically normal in amount (*i.e.*, the variation from the normal was less than 10 per cent.) in 18 out of the 51 rainfall districts (omitting Burma) into which India is divided :—

Division.	Rainfall.			
	Average actual of year 1902.	Average normal of year.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Assam (Surma)	130·38	133·62	—3·24	—2
„ Hills	133·57	135·35	—1·78	—1
„ Brahmaputra	98·86	91·42	+7·44	+8
Deltaic Bengal	63·65	61·19	+2·46	+4
Central „	56·83	56·53	+0·30	+1
Orissa	54·72	58·37	—3·65	—6
Chota Nagpur	45·82	50·41	—4·59	—9
North Bihar	51·25	53·55	—2·30	—4
United Provinces East	37·13	39·83	—2·70	—7
North Oudh	38·54	42·09	—3·55	—8
United Provinces West	23·27	25·10	—1·83	—7
Konkan	106·59	113·14	—6·55	—6
Bombay Deccan	33·39	35·74	—2·35	—7
Gujarat	41·46	41·38	+0·08	0
Central India East	35·14	37·59	—2·45	—7
Rajputana East and Central India West.	22·84	24·52	—1·68	—7
Madras East Coast North	42·86	42·02	+0·84	+2
„ Central	25·68	24·82	+0·86	+3

These districts included the greater part of North-Eastern India and the Gangetic Plain, North Bombay, Central India and East Rajputana.

The rainfall was in excess by 10 per cent. or over in the ten rainfall districts for which data are given below :—

Division.	Rainfall.			
	Average actual of year 1902.	Average normal of year.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Eastern Bengal	108·62	90·29	+18·33	+20
North „	115·82	99·74	+16·08	+16
Bengal Hills	138·32	109·78	+28·54	+26
Malabar	143·94	125·50	+18·44	+15
Madras South Central	35·86	29·44	+6·42	+22
Mysore	39·22	34·54	+4·68	+14
Sind	9·18	6·63	+2·55	+38
Madras East Coast Central	48·77	33·17	+15·60	+47
„ „ South	50·82	41·63	+9·19	+22
„ South	44·01	28·65	+15·36	+54

The rainfall of the year was hence in considerable to large excess in North and East Bengal, Mysore and the central and southern districts of Madras.

The rainfall of the year was between 10 and 25 per cent. in defect in 16 divisions, for which comparative data are given in the following table:—

Province.	Rainfall.			
	Average actual of year 1902.	Average normal of year.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
South Bihar	38·52	45·02	—6·50	—14
South Oudh	30·52	37·64	—7·12	—19
United Provinces, Central	27·92	34·76	—6·84	—20
" East Submontane	39·84	45·38	—5·54	—12
" West Submontane	40·03	47·59	—7·56	—16
" Hills	53·53	63·79	—10·26	—16
South-East Punjab	19·68	22·69	—3·01	—13
Central "	14·83	18·61	—3·78	—20
North "	19·25	22·60	—3·35	—15
West "	7·25	9·18	—1·93	—21
Hyderabad North	30·49	35·66	—5·17	—14
" South	25·63	29·79	—4·16	—14
Khandesh	27·68	31·01	—3·33	—11
Berar	28·16	31·96	—3·80	—12
Central Provinces East	39·37	51·83	—12·46	—24
Kathiawar and Cutch	22·29	27·47	—5·18	—19

The rainfall of the year was in slight to moderate defect, chiefly in the Punjab, the central and western districts of the United Provinces, Khandesh, Berar and Hyderabad.

The rainfall of the year was more than 25 per cent. below the normal in the following divisions:—

Province.	Rainfall.			
	Average actual of year 1902.	Average normal of year.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
South Punjab	11·62	15·97	— 4·35	—27
Punjab Submontane	20·02	29·76	—9·74	—33
" Hills	40·80	60·29	—19·49	—32
Central Provinces West	31·94	44·05	—12·11	—27
" Central	36·50	50·85	— 14·35	—28
Baluchistan Hills	3·25	8·43	—5·18	—61
West Rajputana	8·62	11·78	—3·16	—27

The rainfall of the year was in considerable defect in five plains divisions only. The deficiency was greatest in the submontane districts of the Punjab where it averaged 33 per cent. The rainfall of the year was 28 per cent. in defect in the central districts of the Central Provinces, and 27 per cent. in defect in West Rajputana, the South Punjab and the western division of the Central Provinces. Baluchistan received a total average rainfall for the year of 3·25 inches, 5·18 inches, or 61 per cent. less than the normal annual precipitation of that area.

The rainfall of the year was less than three inches in amount at thirty-seven rain-gauge stations in North-Western India and Baluchistan.

The following gives data for these stations:—

Area.	Station.	Total annual rainfall.
		Inches.
Punjab	Jampur	1·47
	Rajanpur	1·65
	Lodhran	1·92
	Alipur	2·04
	Kabirwala	2·10
Kashmir	Leh	2·94
Sind	Jacobabad	2·10
	Mehar	2·70
Baluchistan	Nushki	0·64
	Killa Saifulla	0·69
	Khost	1·35
	Nuttal	1·40
	Hindubagh	1·44
	Temple Dera	1·46
	Mangi	1·51
	Mach (Railway station)	1·67
	Mushkof	1·68
	Spezand	1·79
	Lindsay	1·90
	Gulistan	1·96
	Abegum	1·97
	Mach (Hospital)	1·98
	Beleli	2·01
	Kolepur	2·06
	Saranan	2·20
	Hirok	2·23
	Sanzal	2·22
	Syed Hamid	2·24
	Chaman	2·45
	Sariab	2·50
	Dirgi	2·64
	Yarookarez	2·70
	Killa Abdulla	2·75
	Pishin	2·84
	Khanai	2·85
	Bostan	2·88
	Peshi	2·96

The minimum rainfall of the year was hence ·64 inch at Nushki in Baluchistan. In the plains of India the minimum rainfall of the year was 1·47 inches at Jampur in the Punjab.

Total rainfalls for the year exceeding two hundred inches were received at fifteen stations:—

Province.	Station.	Rainfall. Actual of year 1902.	Rainfall. Normal of year.
		Inches.	Inches.
Burma	Launglon	232·91	233·24
	Thayetchaung	226·00	220·27
	Bilin	207·59	188·32
	Sandoway	206·70	212·60
	Taungup	204·12	192·51
	Yebyu	204·01	?
Assam	Cherra Poonjee (Police Station).	464·32	461·19
	Wah Maulien	372·38*	?
	Lalakhal	251·49	264·84
	Sunamganj	216·80	209·68
	Marnai	207·58	139·88
	Nemotha	206·84*	202·35
	Bijni	201·43	131·01
Bengal	Buxa	243·14	207·97
Bombay	Malcolmpeth	224·22	267·94

* Total for the period 16th May to 30th November.

The heaviest rainfall of the year was, as usual, registered at Cherra Poonjee, where a total fall of 464·32 inches was recorded. The total fall of the year at the rain-gauge station of Wah Maulien recently opened in the Khasi Hills was nearly as large, *viz.*, 372·38 inches.

The following gives the heaviest falls in 24 hours exceeding 15 inches recorded during the year:—

Province.	District.	Station.	Date and month.	Rainfall during 24 hours preceding 8 A.M. of date.
				Inches.
Assam	Khasi and Jaintia Hills.	Cherra Poonjee	27th April 1902.	15·40
	Ditto	Ditto	18th June „	17·37
	Ditto	Ditto	21st „ „	23·11
	Ditto	Wah Maulien	24th „ „	16·73
Bombay	Surat	Rander	17th July „	22·42
Assam	Khasi and Jaintia Hills.	Cherra Poonjee	10th August „	28·69
	Ditto	Mauphlang	10th „ „	15·27
	Ditto	Cherra Poonjee	11th „ „	22·71
	Ditto	Wah Maulien	11th „ „	21·20
	Ditto	Laitlyngkot	11th „ „	15·66
Bengal	Birbhum	Murari	10th Sept. 1902.	16·60
Madras	Godavari	Coringa	30th Oct. „	15·65
	Nellore	Dugarazpatnam	15th Dec. „	16·40

The following gives a statement of the annual variations of the mean rainfall of India (excluding Burma) during the past 28 years:—

Year.	Number of Divisions. Fall excessive.	Fall normal.	Fall deficient.	Rainfall. Average actual.	Average normal.	Variation from normal.	Percentage variation.
				Inches.	Inches.	Inches.	
1875	16		8	43·47	41·09	+2·38	+6
1876	6		18	36·60	41·09	—4·49	—11
1877	10		14	36·81	41·09	—4·28	—10
1878	17	1	6	47·43	41·09	+6·34	+15
1879	16	2	6	42·78	41·09	+1·69	+4
1880	13	1	10	39·53	41·09	—1·56	—4
1881	15		9	41·19	41·09	+0·10	0
1882	17	1	6	43·73	41·09	+2·64	+6
1883	11	1	12	40·97	41·09	—0·12	0
1884	12		10	42·82	41·09	+1·73	+4
1885	15		7	42·14	41·09	+1·05	+3
1886	14		8	44·11	41·09	+·302	+7
1887	11		11	43·51	41·09	+2·42	+6
1888	10		12	39·53	41·09	—1·54	—4
1889	15		8	43·50	41·09	+2·41	+6
1890	14	1	8	41·77	41·09	+0·68	+2
1891	6		17	37·55	41·09	—3·54	—9
1892	15		8	46·18	41·09	+5·09	+12
1893	22		1	50·16	41·09	+9·07	+22
1894	17		6	47·56	41·09	+6·47	+16
1895	5		17	38·90	41·09	—2·19	—7
1896	7	2	14	36·26	41·09	—4·83	—12
1897	10	2	11	40·94	41·09	—0·15	0
1898	10	3	10	41·52	41·09	+0·43	+1
1899	6		17	29·95	41·09	—11·14	—27
1900	10		13	40·52	41·09	—0·57	—1
1901	5		18	36·96	41·09	—4·13	—10
1902	8		15	39·04	41·09	—2·05	—5

Concluding summary.

I.—The cold weather period, January and February, 1902—The following table gives mean variation data of the more important meteorological elements for the cold weather period, January and February 1902:—

Meteorological Province.	Cold weather period, January and February 1902.							
	Variation from normal of mean monthly pressure.	Variation from normal of mean maximum temperature.	Variation from normal of mean minimum temperature.	Variation from normal of mean aqueous vapour Pressure.	Variation from normal of mean relative humidity.	Variation from normal of mean cloud amount.	Total variation from normal of average actual rainfall.	Percentage variation from normal of rainfall.
	"	°	°	"	.		Inches.	
Burma Coast and Bay Islands.	+·042	−0·8	+0·6	+·008	− 2	+0·8	+0·40	+51
Burma Inland	+·062	−0·5	+0·4				−0·06	−15
Assam	+·045	+1·8	−0·5				−1·57	−69
Bengal and Orissa	+·038	+1·6	−0·2	−·017	− 5	−0·3	−1·28	−96
Gangetic Plain and Chota Nagpur.	+·038	+2·8	−0·4	−·013	− 6	−0·4	−1·00	−76
Upper Sub-Himalayas	+·041	+5·5	−0·2	−·066	−17	−2·3	−2·98	−98
North-West Frontier Province, Indus Valley and North-West Rajputana.	+·032	+6·1	−1·2	−·022	−11	−1·6	−1·02	−99
East Rajputana, Central India and Gujarat.	+·035	+3·4	+1·2	−·049	−12	−1·1	−0·16	−36
Deccan	+·036	+2·1	+1·2	−·036	− 7	+0·4	−0·27	−54
West Coast	+·029	+0·9	+1·1	+·006	− 3	+0·2	+0·02	+ 5
South India	+·038	−0·6	−0·3	+·005	+ 1	+0·3	+1·47	+196

The mean pressure for the period was in excess by nearly equal amounts over the whole Indian area, ranging between ·029″ on the West Coast, ·041″ in the Upper Sub-Himalayas and ·045″ in Assam. It was below the normal in January and in large excess in February. Pressure, in the latter month, averaged ·088″ above the normal, a larger excess than has been previously registered for any month in India.

The excess of pressure was associated with higher temperature than usual over the greater part of India. It was most marked in Upper India and decreased in amount southwards and eastwards. The day maximum temperature averaged 6·1° above the normal in the Indus Valley and North-West Rajputana, 5·5° in the Upper Sub-Himalayan area, 3·4° in East Rajputana, Gujarat and Central India, and 2·8° in the Gangetic Plain and Chota Nagpur. The mean day temperature was in slight defect (less than 1°) in Burma and South India. The night or minimum temperature was practically normal over the greater part of the country. The mean temperature of the month was higher than usual over the whole of India with the exception of South India. The excess was most marked in Upper India, where it was 2½° on the mean of the period. As usual under the conditions of the period, the excess was chiefly due to very high day temperature.

General excess of temperature usually accompanies lower pressure than usual. Hence the increased pressure in February was the difference between a large excess due to some general action and a slight to moderate deficiency due to increased temperature. The actual excess of pressure in that month due to some general action probably averaged at least ·110″ for the Indian area.

The amount of vapour present in the air (as measured by its pressure) was normal in Lower Burma, Southern India and the West Coast and was more or less below it in the interior of India. The deficiency was large and marked in the Upper Sub-Himalayan region averaging ·066″ or 23 per. cent. of the normal, in East Rajputana, Central India and Gujarat averaging ·049″ or 19 per. cent. of the normal and in the Deccan averaging ·036″ or 11 per cent. of the normal. The combination of increased temperature and decreased vapour pressure gave rise to abnormal dryness of the air and low relative humidity percentage values. The mean relative humidity of the period was below the normal over the whole area except South India. The increased dryness of the air was most pronounced in the Upper Sub-Himalayas where the mean relative humidity of the period was 17 below the normal, East Rajputana, Central India and Gujarat where it was 12 below the normal and the Indus Valley and North-West Rajputana where it was 11 below the normal.

The amount of cloud was slightly larger than usual in Burma and the Peninsula, but was more or less considerably below the normal in Northern India, more especially in the Upper Sub-Himalayas, where it was 2·3 in defect (the normal value being 3·8), and the Indus Valley and North-West Rajputana where it was 1·6 in defect (the normal being 3·6).

The precipitation of the period was very scanty over nearly the whole of India. It was practically *nil* in North-Western India which usually receives moderate rain in this period and also in Bengal and Orissa. The Gangetic Plain and Central India received light rain from the two feeble disturbances which originated in Gujarat. The only regions which received moderate rain in excess of the period were the lower Burma coast area and South India.

The abnormal features of the cold weather period were hence very broadly marked. They were as follows:—

(1) Large excess of pressure, nearly uniform in amount over the whole Indian land and sea area.

(2) Moderate to large excess of temperature over the greater part of the area, most marked in Upper India.

(3) Large deficiency of aqueous vapour in the lower atmospheric strata in the interior.

(4) Abnormal dryness of the air, more especially in North-Western India.

(5) Very great deficiency of rainfall, more especially in Upper India and Bengal, where the precipitation was practically *nil*.

(6) The most noteworthy feature of the period was the almost entire absence of cold weather storms of the usual type—storms which form in Persia and advance eastwards across Baluchistan and Northern India.

The data of the following table show that the mean temperature of the cold weather period in North-Western India was more largely in excess than in the corresponding periods of the past twenty-six years, and that the relative humidity, cloud amount and rainfall were more largely below the normal than in any year of the same period. It is hence in these respects unique. The most noteworthy feature, however, is that it is the only year since 1881 in which a considerable increase of temperature accompanied a considerable excess of pressure.

The following table gives comparative data for the cold weather periods of the years 1876 to 1902 for the area including the Punjab, Rajputana, the United Provinces and Bihar:—

Cold weather period of year.	Variation from normal in North-Western India and Bihar of.				
	Pressure.	Temperature.	Humidity.	Cloud.	Rainfall.
	"	°			Inches.
1876	—·044	+0·5	?	—0·7	—1·08
1877	+·062	—1·7	+13	+1·0	+2·45
1878	+·034	—0·2	+ 4	+0·5	—0·04
1879	—·014	+1·8	— 8	—0·8	—0·96
1880	—·029	—0·2	0	—0·1	—0·19
1881	+·027	+2·2	— 4	—0·5	—0·91
1882	+·004	+0·7	+ 1	—0·1	—0·11
1883	—·001	—1·0	0	+0·2	+0·78
1884	+·014	+1·0	— 2	—0·3	—0·89
1885	+·019	—1·6	+ 1	+0·3	+0·14
1886	+·005	—0·6	+ 1	+0·3	—0·28
1887	—·040	—0·3	— 2	+0·1	—0·15
1888	+·025	—1·0	+ 3	+0·8	+0·23
1889	+·020	+1·4	+ 4	+0·8	+1·74
1890	—·029	+2·6	— 8	—0·5	—1·04
1891	+·025	—0·5	+ 6	+0·4	+0·70
1892	—·031	+2·5	— 2	—0·2	—0·37
1893	—·008	—4·2	+11	+1·4	+2·04
1894	+·002	+0·6	+10	+1·3	+0·92
1895	+·004	+0·8	+ 5	—0·2	+0·43
1896	—·013	+2·0	— 3	—0·5	—0·72
1897	—·018	+1·2	— 2	—0·4	—0·12
1898	—·037	+1·1	— 1	—1·0	+1·22
1899	—·024	—0·5	— 6	—0·9	—0·51
1900	—·012	+0·7	— 4	+0·7	+0·59
1901	+·027	—1·5	+ 6	+0·5	+1·38
1902	+·024	+2·7	—14	—1·6	—1·13

The only year closely resembling 1902 is 1881, but the variations, more especially of humidity, cloud and rainfall, are greater in the former than the latter year.

The previous remarks have given the abnormal conditions and features of the meteorology of the period over the plains of India.

The following gives similar data for stations in Persia, Baluchistan, Central Asia and the Himalayas:—

Station.	Variation from normal during cold weather period, January and February.							
	Mean 8 A.M. pressure.	Mean maximum temperature.	Mean minimum temperature.	Mean 8 A.M. aqueous vapour pressure.	Mean 8 A.M. humidity.	Mean 8 A.M. cloud amount.	Rainfall.	Percentage variation of rainfall.
	"	°	°	"			Inches.	
Aden	+·027	—1·3	—0·3	—·034	— 2	—2·0	—0·55	—90
Baghdad	?	+5·2	+3·2	—·026	— 8	+0·3	—2·98	—84
Bushire	+·055	+2·8	+1·8	—·001	— 5	?	—4·39	—80
Quetta	+·090	+8·3	—1·8	—·026	— 7	—1·4	—4·13	—97
Kashgar		+5·1	+0·2	?	?	—2·7	—0·36	—92
Leh	+·128	+5·6	+3·6	+·026	+10	—2·1	—0·65	—98
Murree	+·082	+7·3	+4·4	—·015	—22	—2·0	—7·35	—98
Simla	+·085	+6·2	+5·2	—·028	—18	—1·9	—4·82	—84
Chakrata	+·060	+6·3	+3·8	—·019	—16	—1·9	—6·46	—81
Ranikhet	+·063	+3·2	+2·7	—·023	—13	—2·1	—4·22	—85

The data of the preceding table are very interesting. They indicate that over the Western Himalayan region Baluchistan, Afghanistan, Persia, Asiatic Turkey and Arabia the following abnormal conditions prevailed:—

(1) Pressure was more or less considerably above the normal, the excess increasing with elevation, being greatest at Leh in Thibet at an elevation of 11,000 feet.

(2) Temperature was in large excess, more especially the maximum day temperature. The excess was even more pronounced at the hill stations in Upper India than over the adjacent plains, due chiefly to large excess of the night temperature—a peculiar feature of the hill stations. It was almost as large in amount in Persia and Asiatic Turkey as in North-Western India.

(3) The pressure of the aqueous vapour present in the air, and hence also the amount per cubic foot of air, was less than the normal at all stations, except perhaps Leh.

(4) The relative humidity of the air was locally below the normal, more especially at the hill stations in North-Western India. The deficiency was absolutely greatest at Murree.

(5) Cloud was in large defect by nearly equal amounts, averaging 2·0 for the period at all the stations given in the table with the exception of Baghdad, where cloud was in slight excess. The average normal amount for the period for these stations is 4·7.

(6) The precipitation of the period was in very large defect, both absolutely and relatively to the normal for the period. For example, Murree and Leh each received only 2 per cent. or $\frac{1}{50}$th of the normal fall, Quetta 3 per cent., Kashgar 8 per cent., Aden 10 per cent. and Simla and Ranikhet about one-sixth of their normal fall.

A comparison of these abnormal features with those already given for the plains of Northern and Central India shows that they were identical in character. In other words, the abnormal meteorological features of the period extended over a much larger area than the Indian region and were as pronounced in Persia and Central Asia as in India.

The most remarkable feature of the period in the Persian and Indian regions was the absence of well defined cold weather storms during the whole period. Two or three very feeble depressions, perhaps more correctly described as low pressure waves, passed across these areas from west to east. They gave some cloud in Baluchistan and North-Western India and some light showers in the hills, but were otherwise of little or no importance.

As the cold weather precipitation of the period in North-Western India and the Western Himalayas occurs chiefly, if not solely, in connection with these storms, the precipitation during the cold weather of 1902 was abnormally small in Baluchistan and the mountain districts of Upper India and was, in fact, the smallest on record. Similarly the data received from high level stations show that the snowfall of the period was extremely small in amount at those elevations. Data have already been given illustrating these features. The following gives a summary of data for North-Western India:—

Year.	Variation from normal of rainfall in cold weather period.				
	Kilba.	Kailang.	Murree.	Simla.	North-West India.
	Inches.	Inches.	Inches.	Inches.	Inches.
1876				− 2·02	−1·06
1877			− 1·53	+ 6·03	+2·46
1878			+ 4·78	− 1·70	+2·73
1879			− 8·20	− 1·03	−1·87
1880			− 4·07	− 5·79	−1·22
1881			+ 3·59	+ 3·87	+0·04
1882			+ 2·24	− 0·23	−1·18
1883	− 3·25		+ 3·24	− 0·30	+0·27
1884	− 1·48	−0·07	+11·46	−4·85	−1·66
1885	+14·75	+4·25	+11·46	+ 0·80	−0·26
1886	+20·27	+1·38	+ 9·82	+ 3·02	+2·60
1887	+ 0·83	−1·96	− 3·65	+ 0·29	−1·19
1888	− 4·57	−3·23	+ 3·05	+ 1·21	−0·65
1889	+ 4·31	+1·06	+10·73	+ 4·15	+1·35
1890	− 0·24	−3·05	− 5·58	− 3·59	−1·89
1891	+ 6·86	+4·80	+22·47	+ 2·98	+2·01
1892	−11·24	−4·98	− 1·57	− 5·04	−1·39
1893	− 0·64	−0·63	+10·05	+ 8·88	+2·59
1894	+ 3·48	+3·43	+ 6·76	+10·44	+1·59
1895	− 4·27	−0·29	+ 0·17	+ 2·38	+0·86
1896	− 4·13	−0·70	+ 0·65	+ 1·24	−0·71
1897	− 1·70	+0·87	− 2·24	+ 2·16	−0·51
1898	− 5·98	−2·24	+ 0·14	+ 1·27	+1·50
1899	− 4·16	−2·33	− 4·07	− 1·73	−1·06
1900	+ 1·31	−0·71	+ 0·22	+ 1·11	+0·56
1901	+ 1·93	+1·42	+ 0·47	+10·52	+1·79
1902	− 6·84	−4·45	− 7·35	− 3·83	−1·52

An examination of the previous data shows first of all that the precipitation of the cold weather period was almost as largely below the normal in each of the years 1876, 1879, 1880, 1882, 1884, 1887, 1890, 1892 and 1899 as in 1902.

It also shows that there has been a general deficiency in the winter precipitation in the Western Himalayas, more especially over the interior ranges during the past eight years, *viz.*, from the year 1895 (1901 excepted). This has, moreover, been only part of a more general feature, *viz.*, a persistent deficiency in the rainfall of both the south-west and north-east monsoons or of the wet as well as of the dry seasons.

The following data, for a series of stations in the Simla hills at increasing distances from the plains, give a striking example of this feature:—

Station.	Variation from normal of annual rainfall.								
	Annual normal rainfall.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Kasauli	58·86	+ 2·88	− 1·25	+ 6·39	− 5·78	−29·50	+18·97	+12·14	− 9·38
Barauli	45·81	− 2·69	− 6·89	− 2·84	− 0·12	−17·36	+ 4·53	+42·08	−15·08
Simla	65·14	+ 1·44	−15·68	−14·16	−12·78	−23·42	− 5·82	+ 7·05	−24·78
Kotkhai	44·77	− 7·77	−18·54	+12·59	−16·92	−26·83	− 6·07	− 4·67	−17·66
Kotgarh	46·00	−16·84	−16·83	− 7·11	−13·72	−20·97	+ 2·22	− 5·61	−17·71
Kilba	40·17	−14·41	−17·17	− 5·41	−21·65	−23·83	− 3·26	−13·73	−10·29

Station.	Variation from normal of rainfall during cold weather period, January and February.								
	Normal rainfall of period, January and February.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Kasauli	4·45	+ 1·70	− 1·10	+ 0·14	+ 1·36	− 2·21	+ 0·33	+ 9·90	− 3·70
Barauli	4·45	+ 0·05	− 0·58	+ 0·54	+ 0·64	− 1·71	− 1·37	+10·10	− 4·13
Simla	4·72	+ 2·38	+ 1·24	+ 2·16	+ 1·27	− 1·72	+ 1·11	+10·52	− 3·83
Kotkhai	5·25	− 0·26	+ 0·97	+ 5·29	− 0·13	− 2·63	+ 1·98	+ 6·82	− 4·35
Kotgarh	4·50	− 2·27	− 0·23	− 0·58	+ 0·52	− 2·88	+ 0·70	+ 0·50	− 2·85
Kilba	10·03	− 4·27	− 4·13	− 0·70	− 5·08	− 4·16	+ 1·23	+ 1·93	− 6·64

The following table gives comparative data for the same period of all stations in the areas to the north and west of Upper India, at which meteorological observatories are maintained by the Government of India :—

Station.	Rainfall of period, January and February.									
		Variation from normal.								
	Normal of period.	1892.	1895.	1896.	1897.	1898.	1899.	1900.	1901.	1902.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.
Baghdad.	3·55		−1·34	+1·52	−0·49	−1·08	−3·15	−1·96	−3·02	−2·98
Teheran.	2·11		−0·20	0	+1·32	−1·83	+0·23	−0·57	−1·70	+0·78
Ispahan.	0·43		−0·43	+0·02	+0·25	+0·35	+0·14	−0·01	−0·43	+0·38
Bushire.	5·47	−2·65	−2·24	−2·81	+0·15	−4·14	−2·56	+3·00	−4·25	−4·39
Jask.	1·84		+0·93	−0·71	−0·17	−1·84	−1·36	+1·40	−1·24	−1·17
Quetta.	4·24	−2·61	−2·72	−0·71	+0·04	−2·73	−2·21	+0·39	−2·05	−4·13
Kashgar.	0·39		−0·33	−0·39	+0·19	+0·01	−0·39	+0·17	−0·27	−0·36
Kalat.	2·05		−0·85		+0·76	−1·33	−0·31	−0·24	+0·78	−2·03
Chaman.	3·05		−2·01	−0·93	+1·52	−2·48	+0·02	+2·49	−0·57	−2·73
Kabul.	2·22		?	−2·22	+4·58	−1·89	−2·22	−2·22	−2·22	−1·61
Mean of ten stations.	2·54		−1·02	−0·69	+0·82	−1·70	−1·18	+0·25	−1·50	−1·82

The horizontal columns of means show that the average rainfall of these ten stations in Central and Western Asia was below the normal in six out of the eight cold weather periods 1895—1902. The deficiency was largest in 1902 averaging 1·82 inches or 72 per cent. of the normal mean rainfall of the period for these stations. The data for the year 1892 are very limited, but appear to indicate that the precipitation was almost as largely in defect in the areas represented by these stations as in 1902.

The following table gives corresponding data for the same series of years, for the six months period from October to March :—

Station.	Rainfall of period, October to March.									
		Variation from normal.								
	Normal of period.	1891-92.	1894-95.	1895-96.	1896-97.	1897-98.	1898-99.	1899-1900.	1900-01.	1901-02.
	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches.	Inches	Inches	Inches.
Baghdad.	7·75		+0·52	+3·89	−3·75	−1·90	−4·97	−2·79	−3·80	−5·16
Teheran.	7·34		+1·00	−0·13	+1·38	−0·28	−2·94	−2·34	−2·62	−0·64
Ispahan.	3·09		+1·37	+1·03	−1·55	−0·08	−1·47	−0·06	−0·62	+0·23
Bushire.	11·58	−3·90	+1·95	−7·01	−3·83	−4·64	−4·10	+2·63	−2·48	−8·75
Jask.	4·30		+2·79	−0·68	−2·06	−1·86	−2·91	+2·51	+0·19	−3·63
Quetta.	7·29	−4·37	−2·53	+1·52	−0·67	−0·98	−2·71	−0·80	+1·96	−6·64
Kashgar.	0·86		−0·60	−0·29	−0·18	−0·01	−0·86	+0·25	−0·74	−0·83
Kalat.	3·92		−0·47	?	+0·08	+0·09	−1·51	−0·24	+5·92	−3·76
Chaman.	5·58		?	−1·38	+0·98	−1·95	−1·16	+1·19	+2·50	−5·08
Kabul.	8·45		?	+2·55	+2·88	−4·02	−4·30	−2·75	−3·17	−5·41
Mean of ten stations.	6·02		+1·75	−0·06	−0·67	−1·56	−2·69	−0·24	−0·29	−3·97

A noteworthy feature of cold weather periods of scanty rain and snowfall in North-Western India is excess of pressure at the level of the hill stations. This excess usually begins to be exhibited in October at the end of the rains, and if very pronounced, is a reliable indication of the general character of the precipitation of the succeeding cold weather season. The excess is measured by the difference between the pressure variation at the hill stations and nearest plains stations and is termed the vertical pressure anomaly for the pair of stations in question.

The following table gives vertical pressure anomalies for the cold weather period of 1901-1902 :—

Pair of stations.	Vertical pressure anomaly.						
	September 1901.	October 1901.	November 1901.	December 1901.	January 1902.	February 1902.	Mean of period, November, 1901, to February, 1902
	"	"	"	"	"	"	"
Leh and Lahore	−·005	+·082	+·066	+·009	+·115	+·065	+·064
Quetta and Jacobabad	−·008	+·043	+·028	+·017	+·086	+·060	+·048
Murree and Peshawar	−·002	+·054	+·060	+·028	+·067	+·058	+·053
Simla and Ludhiana	+·002	+·045	+·026	−·001	+·047	+·034	+·027
Chakrata and Roorkee	−·006	+·049	+·007?	+·004	+·019	+·012?	+·011
Ranikhet and Bareilly	−·008	+·040	+·034	+·011	+·027	+·016	+·022
Mount Abu and Deesa	−·030	−·009	+·005	+·017	+·019	+·026	+·017

The table shows that the vertical pressure anomalies for pairs of stations in North-Western India were considerable to large in amount for October and November 1901 and were very large in January and February 1902, more especially for the first three pairs of stations.

The following gives a comparison of the vertical pressure anomalies of the same pairs of stations for 1901-02 and the preceding eight cold weather periods :—

Pair of stations.	Mean vertical pressure anomaly of the cold weather period, November to February.								
	1901-1902.	1900-1901.	1899-1900.	1898-1899.	1897-1898.	1896-1897.	1895-1896.	1894-1895.	1893-1894.
	"	"	"	"	"	"	"	"	"
Leh and Lahore	+·064	−·006	+·008	+·038	+·040	+·013	+·041	+·009	−·004
Quetta and Jacobabad.	+·048	−·008	+·019	+·027	+·050	−·007	+·019	+·001	+·006
Murree and Peshawar.	+·053	+·009	+·040	−·012?	+·041	+·006	+·022	−·006	?
Simla and Ludhiana.	+·027	−·018	+·012	+·005	+·019	−·003	+·012	−·017	−·015
Chakrata and Roorkee.	+·011	−·007	+·022	+·019	+·028	+·023	+·030	+·010	−·010
Ranikhet and Bareilly.	+·022	+·007	+·023	+·011	+·018	+·021	+·025	+·003	+·011?
Mount Abu and Deesa.	+·017	−·026	−·008	−·006	−·002	−·008	+·005	−·007	+·003

The vertical pressure anomalies were hence in the cold weather periods of 1896 and 1898 very similar in character and amount to those of 1902.

II.—The hot weather period, March to May 1902.—The following table gives the mean variations of the more important meteorological elements in the eleven meteorological provinces of India for the hot weather period, March to May 1902 :—

Meteorological Province.	Hot weather period, March to May 1902.								
	Variation from normal of mean pressure.	Variation from normal of mean maximum temperature.	Variation from normal of mean minimum temperature.	Variation from normal of mean aqueous vapour pressure.	Variation from normal of mean relative humidity.	Variation from normal of mean cloud amount.	Total variation of average actual rainfall of period from normal.	Percentage variation from normal of rainfall.
	"	°	°	"			Inches	
Burma Coast and Bay Islands.	+·006	−0·3	+1·1	+·009	−1	0	+4·46	+24
Burma Inland . .	+·024	+0·2	+0·3				−1·05	−14
Assam . . .	+·013	−1·0	−0·4				+0·48	+ 2
Bengal and Orissa .	+0·06	−1·8	−0·1	+·011	0	+0·7	+5·83	+50
Gangetic Plain and Chota Nagpur.	−·007	+0·4	+1·0	+·060	+ 4	+0·4	+0·26	+10
Upper Sub-Himalayas.	−·012	+0·8	+1·6	−·035	− 6	+0·2	0	0
North-West Frontier Province, Indus Valley and North-West Rajputana.	−·019	+2·4	+2·4	+·065	+ 2	0	−0·69	−53
East Rajputana, Central India and Gujarat.	−·010	+1·8	+2·6	−·008	− 3	−0·3	−0·27	−48
Deccan . . .	−·004	+1·7	+1·8	−·025	− 4	−0·5	−1·20	−65
West Coast . .	+·004	+1·1	+1·3	+·042	0	−1·1	−4·21	−55
South India . .	+·004	+0·7	+0·9	+·027	+ 1	+0·4	−0·27	− 7

The following is a brief statement of the more important abnormal features of the meteorology of the Indian area during the period :—

A.—The variations of the pressure conditions from the normal were in general small to moderate in amount, but were remarkably persistent. The following states the more noteworthy :—

(1) The mean pressure of the Indian land area was in slight defect in March, normal in April, and in slight excess in May. The extraordinary conditions which prevailed in February passed away completely in March in India and also, so far as can be judged from the data, more or less completely, in Central Asia and in Europe. During the two months, April and May, the mean pressure of the Indian land area slightly increased relatively to the normal, but was on the mean of the whole period ·001″ in defect.

(2) Pressure was on the mean of March and April in slight or considerable local excess in Burma, Assam, Bengal and Bihar, the excess being greatest in Upper Burma and Assam. Pressure was, on the other hand, generally normal in these areas in May. On the mean of the whole period, pressure was in slight local excess in these areas, the excess averaging nearly ·020″ in Assam and Burma Inland, where it was greatest.

(3) Pressure was in March and April in slight to moderate defect in the United Provinces, the Punjab, Rajputana, Central India, Central Provinces, Sind and Gujarat, and in May in the same areas except in the central districts of the United Provinces, Gujarat, the west of the Central Provinces and Central India. In May pressure was in slightly greater defect in the Punjab than in April. In Gujarat and Central India a change occurred in May, giving that area a slight to moderate local excess of pressure.

(4) Pressure was in March and April in very slight defect in parts of the West Coast, the Bombay Deccan, and in very slight excess over South India, including the Madras coast and Madras Deccan. These variations were generally reversed in May.

(5) Pressure was in relative excess at the hill stations of Upper India as compared with the neighbouring plains stations. The relative excess was in small amount in April and moderate in May, averaging ·023″. This was solely a temperature effect.

B.—The variations of the temperature conditions of the period from the normal were also very persistent throughout the period. The following gives the more noteworthy :—

(1) In March temperature was almost everywhere above the normal, the excess being greatest in Sind and Rajputana where the mean temperature of the month averaged about 5° above the normal. Temperature fell below the normal in April over North-Eastern India which received more frequent and heavier rain than usual. It continued above the normal over the remainder of India, and was 3° above it on the mean of the month in Sind—the area of greatest excess of temperature. Temperature was also below the normal over the greater part of Burma and Bengal in May, due to more frequent rain than usual, but continued above the normal over the remainder of India. The excess was largest in amount in the Deccan, Berar, the Central Provinces and Sind where it averaged nearly 2°.

(2) Temperature was hence persistently above the normal throughout the period in North-Western and Central India and the Deccan. The excess was, on the mean of the period, greatest in the Indus Valley, Rajputana and Central India, for which it averaged 2½° and the Deccan where it was nearly 2°.

(3) Temperature was, during nearly the whole period, in persistent defect in North-Eastern India including Assam, Bengal and Orissa. The deficiency, on the mean of the period, was approximately 1°.

(4) As is the usual rule when temperature is persistently above the normal in the hot weather in India, the night temperature was as largely in excess as the day temperature. There was hence a general excess of temperature with little or no increase of the diurnal range of temperature.

C.—The air movement, more especially the influx of local sea winds in the coast districts, was, as might be expected from the thermal conditions, stronger than usual. This is clearly shown by the following data for stations in the coast districts at which the exposure of the anemometer is most satisfactory :—

Station.	Percentage variation of velocity of air movement in			Mean of period.
	March 1902.	April 1902.	May 1902.	
Akola	+ 6	— 1	+ 8	+ 4
Belgaum	— 2	+ 5	+ 4	+ 2
Mount Abu	+ 9	+17	+31	+19
Kurrachee	—16	— 5	+ 6	— 5
Bhuj	+14	+36	+46	+32
Rajkot	— 1	+20	+11	+10
Saugor Island	+12	+21	+ 9	+14
Calcutta	+ 2	0	—13	— 4 ?
Burdwan	+12	+ 8	—18	+ 1
Chittagong	— 1	+ 7	— 1	+ 2
Dacca	+23	+12	+ 3	+13

D.—In consequence of the increased influx of local sea winds during the period, the amount of aqueous vapour present in the lowest atmospheric strata was larger than usual. The increase was on the whole most marked in the areas under the influence of the sea winds from the Arabian Sea including the West Coast districts, the Indus Valley and North-West Rajputuna and also in the Gangetic Plain. The air was drier than usual over the greater part of the interior due to increased temperature, but the variations of the relative humidity from the normal were, on the mean of the period, generally small. They were on the whole greatest in the Upper Sub-Himalayas where the relative humidity averaged 6 below the normal on the mean of the period.

E.—The variations in the amount of cloud were generally small in amount but were persistent and followed closely the variations of temperature and humidity. There was somewhat more cloud than usual in North-Eastern India and the Gangetic Plain and less in North-Western and Central India and the greater part of the Peninsula. The only area in which the deficiency was moderate in amount was the West Coast where the cloud averaged 1·1 below the normal. This deficiency was local, due to the delay in the establishment of monsoon conditions on the Malabar coast.

F.—The precipitation of the period was more or less in excess in Burma and North-Eastern India, the excess being largish in absolute amount in Lower Burma where it averaged 4·46 inches (or 24 per cent. of the normal), and Bengal and Orissa where it averaged 5·83 inches (or 50 per cent.) The excess was very marked in East and South Bengal which received nearly double the normal fall of the period. The rainfall was small in amount and in largish relative defect over the greater part of the interior of Peninsula and over North-Western and Central India. It was, on the other hand, largely below the normal in the West Coast districts (chiefly Malabar) by amounts averaging 4·21 inches or 55 per cent. of the normal.

The preceding has given the more striking abnormal features of the meteorological conditions over the plains of India. The following data show that similar conditions obtained in the mountain and plateau districts or areas to the north and north-west of Upper India :—

Station.	Variation from normal of period, March to May.						
	Pressure	Maximum temperature.	Minimum temperature.	Aqueous vapour pressure.	Relative humidity.	Cloud amount.	Rainfall.
	"	°	°	"			Inches.
Baghdad	?	+3·8	+3·5	+·005	— 3	+1·5	+0·84
Teheran	?	+3·4	+1·7	?	?	+0·6	—1·54
Ispahan	?	+1·6	+2·6	—·019	—10	—0·2	+0·85
Bushire	—·009	+3·1	+3·4	+·066	+ 3	+0·9	—0·83
Jask	—·053 ?	+2·7	+2·8	—·003	— 4	—0·2	—1·18
Quetta	+·012	+3·7	+0·7	—·002	— 5	+0·2	—2·11
Kashgar	?	—0·8	—0·8	?	?	—2·7	—0·05
Kalat	?	+2·9	—2·8	?	?	?	—0·73
Chaman	—·014	+2·9	+1·5	+·013	— 7	+0·8	—1·47
Kabul	?	+2·6	—1·5	?	?	+1·9	—2·66

The preceding data indicate that in Baluchistan, Afghanistan, Persia and Asiatic Turkey the chief meteorological conditions of the period were practically identical with those obtaining in India. Pressure was in slight defect, temperature (both by day and night) was in moderate to considerable excess, the air was much drier than usual and the precipitation more or less below the normal.

Experience has shown that hot weather seasons following cold weather seasons of scanty rainfall are usually characterized by the following features :—

(1) Persistent excess of temperature over North-Western and Central India.

(2) Relative excess of pressure at the level of the hill stations in Northern India, indicated by large positive vertical anomalies.

(3) Tendency towards greater disturbance in North-Western India in March (and occasionally in April) chiefly exhibited by the occurrence of greater amount of rain and snow than usual in the Western Himalayan area.

(4) Increased rainfall in North-Eastern India, more especially in April and May.

These features were all present in a more or less marked degree in the hot weather of 1902.

It has already been noted in the cold weather section that the years 1879, 1880, 1892, 1896, 1897, and 1899 were all characterized by scanty rainfall and absence of cold weather storms. The meteorology of these

years in the hot weather is compared with that of 1902 in the following paragraphs :—

(1) In each of these years, as in 1902, the hot weather conditions were more intense than usual, and temperature was in excess on the average of the whole Indian area and most largely in excess, as a rule, over North Western and Central India and the north Deccan.

The following gives comparative data for these years :—

Year.	Variation from normal of mean temperature.					
	Hot weather period, March to May.			May.		
	Extra-Tropical India.	Tropical India.	Punjab, Sind and Rajputana.	Extra-Tropical India.	Tropical India.	Punjab, Sind and Rajputana.
	°	°	°	°	°	°
1879	+2·1	+0·2	+1·1	+2·1	−1·0	+2·5
1880	+2·2	+0·6	+4·1	+0·4	+0·4	+2·0
1881	−0·7	+0·2	−0·2	+0·7	+1·0	+1·6
1890	+0·7	+0·2	+1·2	+1·1	+0·2	+1·8
1892	+3·1	+0·9	+4·4	+2·5	+0·4	+2·7
1894	+0·3	+0·2	+0·1	+2·0	+0·3	+1·6
1895	+0·6	0	+1·4	+3·4	+0·8	+3·6
1896	+2·3	+1·7	+2·7	+2·8	+1·6	+3·6
1897	+0·3	+1·1	+0·2	+1·8	+1·6	+3·6
1898	+1·5	+0·7	+1·3	+0·5	+0·6	+0·7
1899	+1·3	−0·4	+2·1	+2·1	−0·4	+3·3
1900	+0·5	+1·7	+1·4	−0·1	+1·8	+0·8
1901	0	+0·4	−0·1	+0·4	+0·2	+0·4
1902	+1·3	+1·3	+2·4	+1·0	+1·4	+1·5

The following gives mean temperature variation data of Northern India (including the Punjab, Upper Sind, the United Provinces, Bihar and Rajputana) for the month of May of these years :—

Month and Year.	Variation of mean temperature in Northern India.	Area of greatest variation.	Amount of greatest variation.
	°		°
May 1879	+4·0	United Provinces of Agra and Oudh.	+5·0
,, 1880	+2·0	South Punjab	+5·6
,, 1881	+0·8	Ditto	+2·9
,, 1890	+1·5	Punjab	+2·5
,, 1892	+3·0	West Punjab	+5·5
,, 1894	+3·0	Chota Nagpur	+5·0
,, 1895	+4·0	Punjab	+6·0
,, 1896	+3·1	Do.	+4·8
,, 1897	+3·6	North-West Rajputana.	+5·5
,, 1898	+0·8	Assam (Surma)	+3·6
,, 1899	+3·3	Punjab (Central).	+6·3
,, 1900	+0·3	Ditto	+2·5
,, 1901	+0·7	United Provinces Central.	+2·8
,, 1902	+0·9	North Punjab	+3·4

(2) Excessive temperature in the month of May generally gives rise to a larger diminution of pressure over the Indian area than that normal to the month, and hence to a deficiency of pressure as compared with the normal. The decrease of pressure is chiefly, if not solely, a temperature effect.

The following gives comparative data of the month of May for 1902 and also for twelve years which were, in the great majority of cases, characterized by increased temperature and decreased pressure over the Indian area :—

Year.	Variation from normal of	
	Mean pressure of month (mean of 10 and 16 hours).	Mean temperature of month, (mean of 10 and 16 hours).
	"	°
May 1879	−·045	+1·3
,, 1880	−·022	+0·2
,, 1890	−·022	+0·6
,, 1892	−·027	+1·8
,, 1894	−·023	+1·5
,, 1895	−·007	+2·4
,, 1896	+·013	+2·3
,, 1897	−·004	+1·7
,, 1898	−·008	+0·6
,, 1899	−·019	+0·8
,, 1900	+·056	+0·8
,, 1901	+·009	+0·3
,, 1902	+·004	+1·2

The preceding data show that increased temperature in May generally accompanies decreased pressure. The relation is not direct as there is no simple relation between the two series of variations. This is of course due to the fact that the variations of pressure over the Indian area are due to more general causes and actions than increased temperature in India. These variations are sometimes similar and sometimes opposite in character to those due to increased temperature. In May 1902 both temperature and pressure were in slight excess. Roughly, a general excess of 1° temperature corresponds to a mean decrease of pressure of about ·015" to ·020".

An equally important result of the increased temperature at the level of the plains is a relative increase of excess of pressure at the level of the hill stations. This is usually expressed in term of the vertical pressure anomalies which in such periods are positive and approximately proportional to the general elevation of temperature.

The following gives data for six pairs of stations for twelve years :—

Year.	Vertical pressure anomaly in May.							
	Quetta and Jacobabad.	Leh and Lahore.	Murree and Rawalpindi.	Simla and Ludhiana.	Chakrata and Roorkee.	Darjeeling and Calcutta.	Mean of six pairs.	Mean temperature variation from normal in Punjab (May).
	"	"	"	"	"	"	"	°
1880	?	+·069	+·038	?	+·015	+·007	+·032	+3·5
1890	+·006	+·063	+·041	+·033	+·022	+·002	+·028	+2·3
1892	+·050	+·125	+·035	+·049	+·040	+·003	+·050	+4·2
1894	+·037	+·082	+·028	+·042	+·033	+·023	+·041	+3·1
1895	+·063	+·101	+·057	+·060	+·045	+·033	+·060	+6·0
1896	+·046	+·085	?	+·050	+·038	+·011	+·046	+4·8
1897	+·050	?	+·017	+·054	+·058	+·028	+·041	+3·1
1898	+·012	+·003	+·001	+·009	+·025	+·015	+·011	+0·2
1899	+·043	+·075	+·033	+·047	+·045	—·005	+·040	+5·3
1900	—·004	—·007	+·006	+·022	+·049	—·012	+·009	+0·6
1901	+·036	+·003	+·006	+·020	+·020	+·021	+·018	—0·3
1902	+·042	+·039	+·022	+·025	+·004	—·021	+·019	+1·9

The data of the two last columns indicate that an excess of 1° of temperature corresponds to an increase of the vertical anomalies in Upper India of ·01".

(3) In March and April, weather was somewhat more disturbed than usual and frequent falls of snow occurred in the Punjab and Kashmir Himalayas, thus prolonging the winter somewhat beyond its normal limit. The falls were, however, limited mainly to the higher ranges. There was no abnormal extension of the snowclad surface in May.

The snowfall was more or less largely below the normal in December, January and February.

Late and heavy snowfall occurred in April and May in 1901, 1898, 1885 and 1878. The following gives the variations of the mean pressure of the Indian area from the normal during the first five months of these years and of 1902 for comparison :—

Year.	Variation of the mean pressure of the Indian area from the normal in				
	January.	February.	March.	April.	May.
	"	"	"	"	"
1878	+·030	+·033	+·044	+·037	+·082
1885	+·039	—·013	+·022	+·018	+·068
1898	+·017	—·077	—·013	—·017	—·009
1901	+·011	+·020	+·045	—·004	+·012
1902	—·012	+·088	—·015	+·002	+·009

The data for 1902 show that the late snowfall of March and April exercised little or no effect upon the pressure conditions, such for example as occurred in 1878 and 1885. In the years 1898 and 1901 the snowfall was moderate in the early part of the winter, and although larger than usual in April and May, it was not excessive, as in 1878 and 1885. This is confirmed by a comparison of the temperature variations of the Punjab and United Provinces for the months of March, April and May 1898 and 1901 with those of 1878 and 1885 given in the table below :—

Year.	Punjab.			United Provinces of Agra and Oudh.		
	March.	April.	May.	March.	April.	May.
	°	°	°	°	°	°
1878	+1·9	—0·9	—4·3	+1·4	—0·6	—4·6
1885	+1·2	—3·1	—8·1	+0·6	—1·0	—3·6
1898	—0·4	+4·8	+0·2	—0·6	+2·5	+0·7
1901	+1·3	—2·7	—0·3	—1·5	—1·7	+0·4
1902	+2·9	+0·1	+1·9	+3·2	—0·2	+0·2

(4) The fourth feature of hot weather seasons following cold weather periods of scanty rain, *viz.*, heavier rain and more frequent series of thunderstorms in North-Eastern India than usual, was present in the hot weather of 1902 in a very marked form.

The following gives comparative rainfall data in illustration :—

Division.	Variation of rainfall from normal in				
	March 1902.	April 1902.	May 1902.	Total of period, March to May.	Percentage variation from normal.
	"	"	"	"	"
Assam (Surma)	—3·08	+6·72	—2·62	+1·02	+ 3
" (Hills)	—1·40	+4·83	—3·93	—0·50	— 2
" (Brahmaputra)	+0·35	+3·19	—4·06	—0·52	— 2
Bengal, East	—0·53	+9·28	+2·63	+11·38	+67
" Deltaic	+1·25	+3·57	+3·29	+8·11	+82
" Central	+0·49	+2·30	+0·78	+3·57	+53
" North	+2·67	+0·88	+1·06	+4·61	+29
" Hills	+1·14	+1·40	—0·65	+1·89	+13
Orissa	—0·18	+1·90	—0·52	+1·20	+20

The more important features of the hot weather period of 1902 were as follows :—

(1) Small variations of pressure, both generally and locally, during the whole of the period.

(2) Slight to moderate excess of pressure at the level of the hill stations in North-Western India. This feature was most marked in May when it averaged ·026". The amount of this excess in relation to the temperature excess indicates that it was purely a temperature effect.

(3) Higher temperature than usual throughout the whole period in North-Western and Central India and the Peninsula. The variations were not large but very persistent in these areas. The excess was greatest in Upper India and Baluchistan for which it averaged 2·0°.

(4) Lower temperature than usual in North-Eastern India accompanying more frequent and heavier rain than usual in April and May. More protracted hot weather than usual, due to delay in the establishment of the monsoon on the Bombay Coast. The absolute maximum temperatures of the year were hence generally recorded a few days later than usual. The following gives the more noteworthy and the date of their occurrence with the normal date of the hottest day of the year:—

Area.	Station.	Highest maximum temperature recorded during the year.	Date on which recorded.	Normal.
		°		
Punjab	Dera Ismail Khan	119·7	5th June.	8th June
	Mooltan	119·0	5th „	1st „
	Khushab	118·9	4th „	10th „
	Peshawar	117·5	7th „	22nd „
	Lahore	117·4	4th „	1st „
	Sialkot	117·0	4th „	1st „
	Montgomery	117·0	3rd „	31st May
	Sirsa	115·8	3rd „	1st June
Sind	Jacobabad	125·0	5th „	27th May
Rajputana	Bikaner	115·8	1st „	29th „

(5) An important feature of the period was the heavy rainfall received in North-Eastern India due to unusually frequent and severe series of thunderstorms. Some of the hailstorms in the Assam Valley and Cachar were of exceptional violence. The storm sections of the monthly reviews for March and May give brief accounts of these severe storms.

(6) A noteworthy feature of the period was the occurrence of two storms, one in the Bay and the other in the Arabian Sea, in the first week of May. These storms were of great intensity and occurred very early in the storm season.

The larger features of the hot weather period were hence directly related to the conditions of the previous cold weather season and to the absence of late snowfall in April and May in the North-Western Himalayas.

III.—The south-west monsoon period, June to September 1902.—The meteorological conditions in the Indian land area antecedent to the establishment of the south-west monsoon were, on the whole, favourable to a normal monsoon and also to its rapid extension over India.

The following gives the most prominent and important of these antecedent conditions:—

(1) The winter was exceptionally mild in the Afghan and Himalayan mountain districts and the snowfall more or less largely below the normal during the months of December, January and February.

(2) Frequent falls of snow occurred in March and April in the Western Himalayas in the middle and higher ranges. Weather was, on the whole, drier and finer than usual in May and the snow hence melted very rapidly, with the result that at the end of May there was no abnormal accumulation of snow except perhaps on the highest ranges. The snowline was almost certainly not lower than usual in the beginning of June in the Punjab Himalayas.

(3) The snowfall in the Eastern Himalayas was more or less below the normal except locally in the hills to the north and east of Sadiya.

(4) The pressure conditions in India during the previous five months were such as are usually associated with much finer weather than usual: the chief features, which were remarkably persistent, being (*a*) local deficiency in Northern India, most marked in the West Punjab, and (*b*) local excess in North-Eastern India and Burma, greatest in Upper Burma.

(5) The temperature conditions were such as usually accompany a more open and milder winter than usual in the Himalayan area. Temperature was in moderate to considerable excess in North-Western and Central India from December to March and in slight excess in April and May. Temperature differed little from the normal throughout the period in North-East India except in April when it was in moderate defect due to the occurrence of unusually heavy rain. Conditions were approximately normal in the Peninsula.

(6) A noteworthy feature of the weather during the months, March to May, was the occurrence of heavier rain than usual in North-Eastern India. The fall was unusually heavy in April when several stations obtained three to five times their normal amounts,—falls greater than any recorded in that month during the past 25 years.

(7) The air was much drier than usual throughout nearly the whole season in North-Western and Central India and the Deccan.

(8) Weather was in the first fortnight of May more disturbed than usual in the Indian seas due to a temporary advance of humid winds and the formation of cyclonic storms both in the Bay of Bengal and in the Arabian Sea. The storm in the Arabian Sea was a very severe disturbance and in many of its features resembled the storm of the first week of May 1892.

(9) The chief abnormal features of the meteorology of India during the cold weather months were related to abnormal conditions in Persia, Central Asia and South and South-East Europe where very strongly marked anti-cyclonic conditions prevailed during the period, January to March.

(10) The information received from South Africa and the south-west of the Indian Ocean, represented by Mauritius, shews that the south-east Trades were, up to the beginning of June, below their normal strength. The general deficiency of rainfall during the season in South Africa, and at Zanzibar and the lateness of the rains on the Upper Nile also

support the conclusion that the Trades were weaker than usual.

The following is a summary of the forecast (prepared in the first week of June) of the probable strength of the monsoon currents and the distribution of the monsoon rainfall based on these conditions:—

(1) It is probable that the monsoon currents will not be above their normal strength and may fall below it. There will be no very abnormal delay in the establishment of the currents on either side of India, which may, therefore, be expected about the middle of the second week of June on the Bombay coast and by the third week of June on the Bengal coast. The Arabian Sea current is more likely to give good rain than the Bay current, but both are likely to be less steady than usual during June. The average rainfall of the whole of India may be in slight defect.

(2) Conditions are generally unfavourable in Burma, more especially in Upper Burma. The rainfall of the period will hence probably be normal or in slight defect in Lower and Cental Burma and in moderate defect in Upper Burma.

(3) Conditions are as unfavourable in Assam as in Upper Burma and it is probable that on the mean of the monsoon period the rainfall will be below normal to a moderate extent in that area.

(4) Conditions are slightly unfavourable in East and North Bengal and the rainfall there will probably be in slight defect. In Orissa, Chota Nagpur and West Bengal, however, conditions are favourable for at least normal rainfall.

(5) Conditions are favourable in Bihar and the United Provinces and these districts will, as a whole, probably receive at least normal rainfall.

(6) Conditions are, on the whole, favourable in the Punjab, and it is probable that the monsoon rainfall of the year will be about normal in the East Punjab, but below the normal to a moderate extent in the western and northern districts where conditions are more or less unfavourable. If the monsoon currents prove strong conditions are favourable for unusually heavy rain in the Simla and Mussoorie hills and the adjacent sub-montane districts.

(7) Conditions are almost as favourable in Central India as in the United Provinces, and that area will probably receive about normal rainfall. The rainfall is more likely to be in excess in the eastern than in the western states.

(8) Conditions are, on the whole, favourable in Rajputana—more especially in the eastern and central districts, where the monsoon rainfall will hence probably be normal.

(9) Conditions are, on the whole, favourable in the Central Provinces. It is hence probable that this area will receive normal rainfall. The conditions are slightly more favourable in the eastern than in the western districts, and it is hence probable that the eastern districts may receive rainfall in slight excess of the normal. They are less favourable in Hyderabad than in the Central Provinces, and the rainfall in that state will probably be normal or in slight defect.

(10) Conditions are practically normal in Berar and Khandesh, and the rainfall in these areas will probably be about normal. They are, on the whole, favourable in the West Deccan and that area will probably receive its normal fall.

(11) The conditions in the West Coast districts are on the whole such as are, in years of normal monsoon conditions, usually associated with normal rainfall. It is hence probable that the rainfall of the present year's south-west monsoon will be about normal on the Konkan coast. It is probable that it will be slightly below normal in Malabar, where conditions are less favourable.

(12) The variations of the rainfall in the north Madras coast districts are in at least five years out of six similar to those of Orissa and the Central Provinces. Conditions appear to be, therefore, on the whole, favourable, and it is probable that those districts will receive about normal rain.

(13) A comparison of the conditions in the Madras Deccan, Mysore and the Carnatic with those of similar years indicates that the rainfall during the period —June to September—will probably be in slight excess in Mysore and South Madras and normal or in defect in Central and East Madras. If, however, a prolonged break in the rains occurs in Northern India in July or August, South India will receive abundant rain.

(14) The pressure conditions in Gujarat, Kathiawar, Sind and Cutch are such as are usually associated with deficient rainfall. Hence in these areas less rain than usual may be expected. If the Bombay current proves weaker than usual the deficiency in these areas may be serious.

The following gives a summary of the rainfall data of the south-west monsoon period, 1902, for comparison with the statements of the forecast:—

Province.	Rainfall of season, June to October.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Burma	94·75	98·01	−3·26	− 3
Assam	81·81	77·55	+4·26	+ 5
Bengal	66·59	62·53	+4·06	+ 6
Chota Nagpur	41·01	44·71	−3·70	− 8
Bihar	40·87	44·61	−3·74	− 8
United Provinces of Agra and Oudh.	32·67	35·88	−3·21	− 9
Punjab	13·24	14·81	−1·57	−11
Central Provinces	33·60	45·99	−12·39	−27
Central India	33.24	35.56	−2·32	− 7
Rajputana	15·35	16·63	−1·28	− 8
Berar	25·20	29·61	−4·41	−15
Bombay	37·16	40·54	−3·38	− 8
Madras	40·08	34·05	+6·03	+18

The forecast was in moderate accordance with fact. The general character of the monsoon was, on the whole, correctly anticipated. The chief discrepancies were in the estimates of the rainfall in Burma and North-Eastern India generally, and in the Central Provinces and Berar. In the former it was underestimated and in the latter considerably overestimated.

The following table gives the mean variations of the more important meteorological elements in the eleven meteorological provinces of India for the south-west monsoon period, June to September, 1902 :—

Meteorological Province.	South-west monsoon period, June to September, 1902.							
	Variation from normal of mean pressure.	Variation from normal of mean maximum temperature.	Variation from normal of mean minimum temperature.	Variation from normal of mean aqueous vapour pressure.	Variation from normal of mean relative humidity.	Variation from normal of mean cloud amount.	Total variation from normal of average actual rainfall.	Percentage variation from normal of rainfall.
	"	°	°	"			Inches.	
Burma Coast and Bay Islands.	+·005	+0·5	+0·7	+·012	—1	—0·3	—8·22	—7
Burma Inland	+0·12	0	+0·2				—0·24	—1
Assam	—·001	—1·1	—0·3				+9·92	+13
Bengal and Orissa	+·001	+0·5	+0·2	+·011	—2	+0·4	+6·49	+12
Gangetic Plain and Chota Nagpur.	—·001	+1·4	+0·6	—·010	—4	+0·4	—1·87	—5
Upper Sub-Himalayas.	+·002	—0·3	+0·4	—·008	0	—0·6	—4·32	—14
North-West Frontier Province, Indus Valley and North-West Rajputana.	+·004	+0·8	+0·7	+·004	—3	—0·8	—0·85	—12
East Rajputana, Central India and Gujarat.	+·002	+2·0	+1·4	—·015	—6	—1·0	—2·44	—9
Deccan	+·008	+2·8	+1·1	—·009	—5	—0·5	—8·27	—25
West Coast	0	+0·6	+0·8	+·008	—3	—0·6	+16·49	+20
South India	+·006	+1·0	+0·7	+·023	0	+0·1	—0·67	—4

The following is a statement of the chief features of the meteorology of the whole period :—

(1) The mean pressure of the Indian area differed very slightly from the normal in August and September and was in moderate defect in July, and in moderate excess in June. On the mean of the period it was only ·004" above the normal. The provincial variations changed considerably from month to month, and on the mean of the period were small and of no importance.

(2) Temperature was practically normal throughout in North-Eastern India and Burma, or in the area dependent upon the Bay current for its rainfall. It was more or less in excess over the field of the Arabian Sea current from June to August (more especially in the interior districts) and was normal in September. The day temperature was generally more largely in excess than the night temperature. The mean temperature of the period was 1° and upwards in excess in the Deccan (2°), East Rajputana, Central India and Gujarat (1·7°), and the Gangetic Plain (1·0°).

(3) The mean aqueous vapour pressure for the period varied very slightly from the normal over the whole area and was generally below the normal. The relative humidity was everywhere in defect as a result of the increased temperature which prevailed during the greater part of the period, but the variations from the normal were on the average of the whole period small in amount. They were greatest in East Rajputana, Central India and Gujarat (—6), the Deccan (—5) and the Gangetic Plain and Chota Nagpur (—4).

(4) The amount of cloud was, on the mean of the period, in slight defect over the area under the influence of the Bombay current and in very slight excess in the area dependent on the Bay current (except Lower Burma). The variations averaged —0·8 over the whole of North-Western India, for which the normal mean cloud amount is 4·7 for the period.

(5) The rainfall of the period was very irregularly distributed throughout the season. The following are the chief features :—

(a) The Bombay current was very weak until the middle of August, and three prolonged breaks occurred during which the rainfall in the interior was very light and scanty. The rainfall of the first half of the monsoon period including the months of June and July was hence more or less largely in defect over nearly the whole area dependent on that current. The following gives data in illustration :—

Area.	Variation from normal of rainfall in			Normal rainfall of period, June and July.	Percentage variation of period.
	June.	July.	Period, June and July.		
	Inches.	Inches.	Inches.	Inches.	
Malabar	—15·21	+21·35	+ 6·14	70·99	+ 9
Konkan	—10·54	— 2·69	—13·23	67·18	—20
Gujarat	— 5·46	— 4·18	— 9·64	23·32	—41
Kathiawar and Cutch	— 3·49	— 6·37	— 9·86	14·89	—66
Bombay Deccan	— 0·68	— 1·04	— 1·72	14·81	—12
Madras Deccan	+ 0·67	— 1·24	— 0·57	5·39	—11
Berar	— 4·13	+ 1·52	— 2·61	15·02	—17
Central Provinces	— 6·50	— 1·56	— 8·06	23·29	—35
Central India	— 5·71	+ 5·79	+ 0·08	17·60	0
Rajputana	— 0·45	+ 0·29	— 0·16	8·08	—2

(*b*) The Bombay current was strong and gave abundant rain from the middle of August to the end of September. The rainfall during the second half of the season in the field of the Bombay current was hence normal or in excess. The rainfall was very unequally distributed due to the occurrence of a series of five cyclonic storms which gave locally excessive rainfall to Gujarat, Kathiawar and Cutch. The following gives data :—

Area.	Variation from normal of rainfall in				Percentage variation from normal.
	August.	September.	Period, August and September.	Normal rainfall of period, August and September.	
	Inches.	Inches.	Inches.	Inches.	
Malabar . . .	−5·03	+14·74	+ 9·71	29·62	+33
Konkan . . .	−4·59	+10·72	+ 6·13	38·32	+16
Gujarat . . .	+4·23	+ 6·26	+10·49	16·40	+64
Kathiawar and Cutch	+1·84	+ 3·67	+ 5·51	11·16	+49
Bombay Deccan .	−2·33	− 0·97	− 3·30	11·83	−28
Madras Deccan .	−0·58	+ 1·23	+ 0·65	9·42	+ 7
Berar . . .	−0·11	− 1·93	− 2·04	12·86	−16
Central Provinces .	−2·98	− 0·35	− 3·33	20·87	−16
Central India . .	−4·21	+ 1·90	− 2·31	17·08	−14
Rajputana . .	−1·68	+ 0·42	− 1·26	8·42	−15

(*c*) The rainfall of the whole monsoon period was more or less below the normal over the greater part of the area dependent on the Arabian Sea current. The following gives a summary of the data :—

Area.	Rainfall of period, June to Sept. 1902.			
	Average actual, 1902.	Average normal.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Malabar	116·46	100·61	+15·85	+ 16
Konkan	98·40	105·50	−7·10	− 7
Gujarat	40·57	39·72	+0·85	+ 2
Kathiawar and Cutch . . .	21·70	26·05	−4·35	− 17
Bombay Deccan . . .	21·62	26·64	−5·02	− 19
Madras Deccan	14·89	14·81	+0·08	+ 1
Berar	23·23	27·88	−4·65	− 17
Central Provinces . . .	32·77	44·16	−11·39	− 26
Central India	32·45	34·68	−2·23	− 6
Rajputana	15·09	16·50	−1·41	− 9

The data show that the deficiency was large, exceeding 15 per cent. in four areas, *i.e.*, the Central Provinces (26 per cent.), the Bombay Deccan (19 per cent.) and Berar, Kathiawar and Cutch (each 17 per cent.)

(*d*) The Bengal current was moderately strong throughout the whole period and gave on the whole normal and well-distributed rain. The following gives data in illustration :—

Area.	Variation from normal of rainfall in				
	June.	July.	August.	September.	Period, June to September.
	Inches.	Inches.	Inches.	Inches.	Inches.
Burma . . .	−2·76	+5·58	−5·33	+1·63	−0·88
Bengal . . .	−0·55	+3·30	−0·28	+3·49	+5·96
Assam . . .	+4·48	−2·65	+1·08	+2·24	+5·15
Bihar . . .	−3·64	+0·60	−3·48	+4·34	−2·18
Chota Nagpur . .	−6·18	+2·97	−1·80	+3·58	−1·43
Orissa . . .	−4·27	+7·53	+0·43	−3·28	+0·41
United Provinces of Agra and Oudh.	−3·30	+3·62	−4·37	+1·95	−2·10
Punjab . . .	+0·59	−0·77	−1·49	−0·14	−1·81

The preceding data are given in a slightly different form in the following table *viz.*, as percentages :—

Area.	Percentage variation of rainfall.				
	June.	July.	August.	September.	Period, June to September.
Burma . . .	− 12	+ 21	− 22	+ 10	− 1
Bengal . . .	− 4	+ 21	− 2	+ 29	+ 11
Assam . . .	+ 22	− 13	+ 6	+ 16	+ 7
Bihar . . .	− 46	+ 5	− 29	+ 48	—
Chota Nagpur .	− 67	+ 21	− 18	+ 43	− 5
Orissa . . .	− 45	+ 63	+ 4	− 33	+ 3
United Provinces of Agra and Oudh.	− 66	+ 31	− 39	+ 30	− 11
Punjab . . .	+ 35	− 15	− 29	− 6	− 4

(*e*) The monsoon rains were very late in commencing in the areas for which data are given below :—

Province.	Normal or average date of commencement of south-west monsoon rains.	Actual date of beginning of south-west monsoon rains in 1902.	Monsoon began later than usual by
Chota Nagpur	15th June .	1st July .	16 days.
United Provinces . . .	25th " .	4th " .	9 "
Central Provinces . . .	10th " .	1st " .	21 "
Central India	15th " .	1st " .	16 "

(*f*) The monsoon rains terminated about a week later than usual in Rajputana and the East Punjab.

(*g*) They ceased earlier than usual in the provinces for which data are given below :—

Province.	Normal or average date of termination of south-west monsoon rains.	Actual date of termination of south-west monsoon rains in 1902.	Monsoon ended earlier than usual by
Konkan	15th October	22nd September	23 days.
Malabar	15th November	8th November	7 ,,
Central Provinces	15th October	22nd September	23 ,,
Central India	30th September	23rd ,,	7 ,,
United Provinces	,, ,,	26th ,,	4 ,,
Bihar	15th October	7th October	8 ,,
Bengal	31st ,,	10th ,,	21 ,,
Upper Burma	1st November	,, ,,	22 ,,
Lower Burma	20th ,,	21st ,,	30 ,,

The date of termination of the rains for the Konkan and North Deccan is that of the fairly continuous rainfall that characterizes the monsoon. Rain fell later than the dates given in these areas during three short periods when storms were passing northwards up the centre of the Arabian Sea. The data show that the rains also terminated considerably earlier than usual in Bengal, Burma and the Central Provinces. The only area in which the crops suffered to a serious extent was in the eastern (rice-growing) districts of the Central Provinces where the rice crop partially failed in the Bilaspur, Raipur and neighbouring districts.

The previous remarks have shown that the pre-monsoon conditions in India were such as are usually considered favourable to the establishment of early and abundant monsoon rains. The cold weather was one of the driest and warmest on record. The hot weather was also hotter than usual. Pressure was in May on the mean of the whole area practically normal and the local variations were generally unimportant except perhaps in North Bombay. The snowfall over the Western Himalayas was undoubtedly much less than usual. It fell late in the season, chiefly during March and April, in moderate amounts. There was, hence, no abnormal extension of the area of snow accumulation in May, and the temperature, humidity and pressure variations in North-Western India for May indicate clearly the absence of abnormal conditions due to late and heavy snowfall.

The conditions in India itself hence fail to give any clue to the delay in the advent of the monsoon, and to the great weakness and scanty rainfall of the monsoon currents in June and July and more especially of the Bombay or Arabian Sea current. We have now to examine the conditions in the oceanic area to the south of India.

The information at present available for discussing the meteorology of the South-East Trades region of the Indian Ocean is very limited.

The following gives variation data of the Royal Alfred Observatory, Mauritius, for nine months of the year deduced from a comparison of the means of 1902 with normal means based on the observations of the previous 26 years :—

Mauritius.

Month.	Variation from normal of pressure.	Variation from normal of rainfall.	Percentage variation of rainfall.	Variation from normal of hourly wind velocity in miles.	Percentage variation of wind velocity.
	"	Inches			
January, 1902	+·012	− 4·96	− 56	−0·2	− 2
February ,,	−·043	+10·47	+149	+4·5	+40
March ,,	+·028	− 3·03	− 37	−0·9	− 9
April ,,	−·012	− 3·50	− 68	−4·0	−38
May ,,	−·019	− 2·19	− 54	−1·4	−14
June ,,	−·054	− 0·26	− 14	−1·5	−13
July ,,	−·051	− 0·19	− 8	−1·4	−14
August ,,	−·058	− 1·79	− 76	−2·3	−19
September ,,	−·022	− 0·13	− 9	−1·1	− 9

The data for Mauritius are very remarkable. They show that the air movement and the rainfall were both more or less largely below the normal in every month except February, and also that the air pressure was below the normal in seven out of the nine months of the period. The deficiency was large in the period June to August, averaging ·054." In February the rainfall was excessive, 10·47 inches or 149 per cent. above the normal and the air movement much stronger than usual. The air pressure was ·043" below the normal, although it was ·088" above it on the average of the whole of India. It is a striking example of the inverse character of the pressure variations in the Indian area and the Indian Ocean. The meteorological conditions in Mauritius, antecedent to and accompanying the south-west monsoon, were hence very abnormal and almost unique in their persistency.

In the following table a similar comparison is given for Zanzibar, the normal means being deduced from the observations of ten years :—

Zanzibar.

Month.	Variation from normal of pressure.	Variation from normal of rainfall.	Percentage variation of rainfall.	Variation from normal of hourly wind velocity in miles.	Percentage variation of wind velocity.
	"	Inches.			
January, 1902	+·011	−3·15	− 93	+0·6	+ 7
February ,,	+·068	+2·45	+178	+1·3	+20
March ,,	+·010	−0·25	− 4	−1·8	−31
April ,,	+·008	−0·60	− 6	−1·3	−17
May ,,	−·009	+1·46	+ 14	+0·5	+ 6
June ,,	−·029	−0·07	− 7	−0·8	− 9
July ,,	−·031	+2·20	+ 80	−0·2	− 2
August ,,	−·035	−1·29	− 68	−0·8	−11
September ,,	− 011	+0·61	+ 30	+0·2	+ 3

The data indicate that the pressure variations at Zanzibar were generally similar to the variations at Mauritius. Pressure was below the normal in five months, the deficiency being marked from June to August, thus agreeing with Mauritius. The only noteworthy difference was that pressure was almost as largely in excess at Zanzibar in February as in the Indian area while it was in largish defect at Mauritius. The air movement was also generally more or less below the normal. The only important exception was the month of February when it was in moderate excess. The rainfall was below the normal in five months and above it in four and on the total of the whole period was 1·36 inches in excess.

The following table gives the mean pressure differences between Mauritius and Zanzibar and Mauritius and the Seychelles (determined from the data of the eight years 1894 to 1901) and the actual differences in the corresponding months of the year 1902 :—

Month.	Pressure Difference.					
	Mauritius *minus* Zanzibar.			Mauritius *minus* Seychelles.		
	Mean of 1894 to 1901.	Mean of 1902.	Variation.	Mean of 1894 to 1901.	Mean of 1902.	Variation.
	"	"	"	"	"	"
January	+·029	+·062	+·033	−·017	+·043	+·060
February	+·003	−·073	−·076	+·003	−·084	−·087
March	+·042	+·087	+·045	+·048	+·09	+·047
April	+·053	+·059	+·006	+·111	+·115	+·004
May	+·060	+·051	−·009	+·162	+·152	−·010
June	+·048	+·051	+·003	+·206	+·169	−·037
July	+·090	+·066	−·024	+·224	+·200	−·024
August	+·108	+·080	−·028	+·243	+·221	−·022
September	+·108	+·107	−·001	+·211	+·214	+·003
Mean of whole period	+·060	+·054	−·006	+·132	+·125	−·007
Mean of June to September.	+·089	+·076	−.013	+ 221	+ ·201	−·020

The preceding data indicate that the pressure differences or total gradients between Mauritius and the Equatorial Belt, as represented by Zanzibar and the Seychelles, were greater than the mean of the eight years 1894 to 1901 during January and March, but considerably less than the mean in February, July and August. In other months of the year the gradient was practically equal to the mean. On the average of the monsoon period, however, the gradient was below the mean to a moderate extent.

The following table gives a comparison, week by week, from the 1st of May to the end of September of the air pressure and velocity of the air movement at Port Victoria, Seychelles, in the eight years 1895 to 1902 :—

Week.	10 A.M. pressure reduced to sea-level and constant gravity at Lat. 45°.	Hourly wind velocity in miles.							
		1902.	1901.	1900.	1899.	1898.	1897.	1896.	1895.
	"								
1st to 7th May	29·857	7·3	6·0	4·9	5·7	3·1	7·1	5·3	5·9
8th to 14th "	29·912	6·5	4·7	6·3	4·4	2·4	6·4	8·3	3·6
15th to 21st "	29·930	7·7	3·0	3·4	7·5	7·9	6·2	10·1	3·7
22nd to 28th "	29·925	13·9	9·8	5·4	19·5	7·5	6·9	9·4	6·4
29th May to 4th June.	29·901	12·2	8·4	8·8	10·9	7·5	4·5	9·4	9·9
5th to 11th June.	29·887	13·4	11·5	9·6	8·3	10·8	7·3	9·5	12·9
12th to 18th June.	29·921	8·9	7·0	9·8	12·2	13·7	7·8	11·8	11·6
19th to 25th June.	29·969	8·6	8·3	8·9	13·5	10·3	9·0	9·9	10·3
26th to 2nd July.	29·958	11·1	7·8	11·3	11·7	13·0	4·0	10·7	13·0
3rd to 9th July	29·938	9·5	9·4	9·8	15·9	13·9	11·3	12·6	9·7
10th to 16th "	29·901	9·4	7·1	13·9	14·8	12·2	10·0	11·9	11·3
17th to 23rd "	29·958	10·6	11·0	11·3	13·3	8·9	9·2	12·6	14·0
24th to 30th "	29·952	15·3	12·9	12·4	14·8	11·5	16·8	11·3	11·2
31st July to 6th Aug.	29·945	11·8	11·5	12·9	13·0	12·4	11·5	15·8	13·2
7th to 13th Aug	29·912	10·2	15·0	13·8	14·2	12·3	9·9	14·0	11·7
14th to 20th "	29·911	15·7	15·7	15·5	15·3	14·3	13·1	13·7	16·0
21st to 27th "	29·889	11·5	15·8	14·7	15·8	12·3	12·8	15·5	14·0
28th Aug. to 3rd Sept.	29·924	12·2	17·2	12·2	12·2	9·9	8·9	16·1	12·0
4th to 10th Sept.	29·989	14·1	15·3	10·7	15·0	13·4	16·7	10·8	13·3
11th to 17th Sept.	29·956	13·4	12·5	11·5	12·8	12·5	10·9	13·3	12·9
18th to 24th Sept.	29·944	8·9	8·6	14·3	7·5	10·3	13·0	12·8	12·1

There was during the monsoon period a general correspondence between the variations of the strength of the winds at the Seychelles and the variations of the strength of the monsoon currents over the Indian land area. Thus about the time of the first advance of the monsoon over India in June the winds at the Seychelles strengthened and averaged 13·2 miles per hour from the last week of May to the middle of June. This corresponded to the advance which gave rise to the severe storm in the Arabian Sea in the first week of June. The winds were light and considerably below their normal strength for the period from the middle of June to the 23rd of July. Again the strengthening of the winds at the Seychelles about the beginning of the first week of July may be associated with the advance of monsoon winds which occurred over India about that time. An exact correspondence, however, between the varying strengths of the winds at the Seychelles and the various advances of the monsoon in the early part of the monsoon period does not seem to have obtained. The abnormally strong winds at the Seychelles during August may, however, be associated with the strong monsoon which then held over India, while the steady decline of the wind strength after the 10th of September was probably similarly related to the feebleness of the

monsoon currents over India during the latter part of that month.

The following gives the mean direction of the actual and normal air movements at Zanzibar and the Seychelles and shows that the direction of the air movement in the equatorial belt did not differ largely from the normal during the monsoon period. The chief features were (1) a slight westerly deflection of the winds at the Seychelles, in March, April and August and (2) a slight westing of the winds at Zanzibar from April to the end of the year, most marked in August :—

Month.	Zanzibar.		Seychelles.	
	Actual.	Variation E.	Actual.	Variation E.
January	N 35° E	0	N 34° W	+ 9°
February	N 36° E	+ 2°	N 4° E	+31°
March	S 70° E	+36°	N 16° W	−15°
April	S 3° E	− 2°	S 57° E	−12°
May	S 2° E	− 3°	S 44° E	0
June	S 7° E	− 3°	S 26° E	+ 3°
July	S 5° E	0	S 28° E	+ 1°
August	S 3° W	−12°	S 29° E	− 7°
September	S 10° E	− 2°	S 42° E	+ 1°

IV.—The retreating south-west monsoon period, October to December 1902.—The following gives the mean variation data of this period for the eleven meteorological provinces :—

Meteorological Province.	Retreating south-west monsoon period, October to December 1902.							
	Variation from normal of mean pressure.	Variation from normal of mean maximum temperature.	Variation from normal of mean minimum temperature.	Variation from normal of mean aqueous vapour pressure.	Variation from normal of mean relative humidity.	Variation from normal of mean cloud amount.	Total variation from normal of average actual rainfall.	Percentage variation from normal of rainfall.
	"	°	°	"			Inches	
Burma Coast and Bay Islands.	+·025	+0·9	+0·9	−·010	−3	−0·8	5·30	−42
Burma inland	+·037	−0·9	−1·7				−2·52	−39
Assam	+·041	−1·1	−2·8				−1·64	−27
Bengal and Orissa	+·042	−0·1	−1·0	−·036	−5	−0·3	−2·74	−45
Gangetic Plain and Chota Nagpur.	+·040	−0·1	−0·7	−·020	−3	0	−2·24	−72
Upper Sub-Himalayas	+·036	−0·6	+0·8	−·003	−1	−0·2	−0·50	−44
North-West Frontier Province.								
Indus Valley and North-West Rajputana.	+·027	+0·4	+2·0	+·060	+2	0	−0·31	−76
East Rajputana, Central India and Gujarat.	+·039	−0·4	+1·4	+·006	−3	−0·3	−0·48	−45
Deccan	+·035	−0·7	+1·6	+·039	+4	+1·2	+0·97	+25
West Coast	+·012	−0·2	+2·1	+·031	−2	+0·6	+2·02	+19
South India	+·028	−0·6	+1·3	+·051	+4	+1·2	+5·86	+36

The following summarizes the chief features of the period :—

(1) The mean pressure was considerably above the normal over the whole Indian area. The excess averaged ·032″ for the whole Indian land area. Pressure was ·077″ above the normal in October, ·041″ in November and ·022″ below it in December. The termination of the monsoon in Northern India hence accompanied a much more rapid rise of pressure in the Indian region than usual. The local variations were generally small in amount and of little significance. The only important one was a persistent moderate to considerable deficiency of pressure over the greater part of the Peninsula, most marked throughout in the South Konkan and Malabar coasts. Over Northern and Central India there was a slight relative excess of pressure on the mean of the period. The excess was very marked in North-Eastern India in October, accompanying the early withdrawal of the monsoon from that area and Burma.

(2) The most important features of the temperature conditions from the normal were as follows :—

(*a*) Temperature, both by day and night, was below the normal over the interior of Burma and the whole of North-Eastern India. This appears to have been due to some influence from the north as the decrease of temperature was most marked in Assam (−2·0°) and Upper and Central Burma (−1·3°) on the mean of the period. It extended westwards to Upper India in December.

(*b*) The mean temperature was in excess throughout the period in the Peninsula. This was solely due to large excess of night temperature accompanying increased humidity and cloud. The day temperature was in slight defect. The mean temperature of the period was most largely in excess in that area in the West Coast (+1·0°).

(*c*) Temperature, both by day and night, was above the normal during the period in Baluchistan, the Punjab, Sind and West Rajputana. The excess was most marked in the night temperature and was due to the influence of feeble depressions which advanced eastwards from the Persian area, filling up as they passed through Baluchistan and Upper India. These disturbances gave frequent moderate cloud but no rain except in the North Punjab and the higher mountains in Baluchistan and Kashmir. The mean temperature of the period averaged 2·0° in excess in Baluchistan, 1·2° in the Indus Valley and North-West Rajputana and 0·5° in East Rajputana, Central India and Gujarat.

(3) The mean aqueous vapour pressure was in moderate excess in the Indus Valley and North-West Rajputana and in the Peninsula. In the latter area

the excess was greatest in absolute amount in South India. The absolute humidity, on the other hand, was slightly below the normal in North-Eastern India and Burma. The mean relative humidity was 4 above the normal in the Deccan and South India. It was below it over the whole of North-Eastern India and Burma. The deficiency was greatest in Bengal and Orissa (—5).

(4) The cloud amount was less than usual over Northern and Central India and Burma. It was, on the other hand, above it in the Peninsula by amounts averaging 1·0, the normal being 3·7.

(5) The following gives the chief abnormal features of the rainfall of the period :—

(*a*) The rainfall of the period was more or less largely in defect in Northern and Central India and Burma. It was small in absolute amount in North-Western and Central India. The deficiency averaged 72 per cent. in the Gangetic Plain, 45 per cent. in Bengal and Orissa, 39 per cent. in Central and Upper Burma and 27 per cent. in Assam. It differred in absolute amount to a slight extent over the whole of North-Eastern India and Burma and averaged 2¼ inches for the whole area. The deficiency was largest in Lower Burma where it was 5·3 inches or 42 per cent. of the normal fall of the period.

(*b*) The precipitation was in excess over the Peninsular area by amounts increasing absolutely as well as relatively to the normal southwards. The excess averaged approximately one inch in the Deccan, two inches in the West Coast and nearly six inches (36 per cent) in Southern India.

The more noteworthy features of the period were :—

(1) The early withdrawal of the humid south-west monsoon current from North-Eastern India and Burma.

(2) The steady determination of the south-west monsoon currents to the southern half of the Peninsula from the middle of October to the middle of December.

(3) The unusually small number of storms during the period in the Bay of Bengal. Two only occurred in October and none in November and December.

(4) The abnormal character of the weather in the Arabian Sea indicated by the occurrence of three severe cyclonic storms. Two storms formed and advanced to the South Arabian Coast in October and a third advanced from the south of that sea towards the Kathiawar Coast in December. This is the largest number of storms which have appeared in the Arabian Sea during this period in any year for at least fifty years.

It has been pointed out that the monsoon rains ceased somewhat earlier than usual in North-Eastern India and Burma. The following statement gives the date of termination of the rains in these areas in 1902 and of the approximate normal dates of their termination :—

Province or Division.	Date of termination of the monsoon rains in 1902.	Normal or average date of termination of south-west monsoon rains.
Malabar	8th November	November 15th.
Konkan	22nd September	October 15th.
Kathiawar	21st "	September 21st.
Central Provinces	22nd "	October 15th.
Central India	23rd "	September 30th.
Rajputana	22nd "	" 20th.
East Punjab	21st "	" 15th.
United Provinces	26th "	" 30th.
Bihar	7th October	October 15th.
Bengal	10th "	" 31st.
Upper Burma	10th "	November 1st.
Lower Burma	21st "	" 20th.

The termination of the rains in North-Eastern India and Burma accompanies, and is followed by, a considerable local rise of pressure which modifies largely the distribution of pressure in that area and the Bay.

This local increase of pressure was very marked in October 1902. It probably extended into Southern China and East Thibet. There is no direct evidence based on actual observations in that area for this statement. It is not only the simplest, but probably the only explanation for the temperature conditions and the air movement in Assam and Burma during the period.

The following gives data :—

October.

Area.	Variation from normal of			
	Maximum temperature.	Minimum temperature.	Humidity.	Cloud.
	°	°		
Assam	—2·0	—3·0	0	+0·7
North Bengal	—1·7	—1·7	+1	+0·9
East Bengal	—1·2	—1·0	+1	—0·1
South Bengal	+1·0	—0·4	—1	—0·4
Upper Burma	—1·8	—1·4	0	—0·5
Central Burma	+0·3	—1·9	+1	—1·0
Lower Burma	+0·3	+0·6	—2	—1·6

November.

Area.	Variation from normal of			
	Maximum temperature.	Minimum temperature.	Humidity.	Cloud.
	°	°		
Assam	—0·3	—3·0	0	—0·8
North Bengal	—1·0	—1·4	+1	—0·2
East Bengal	+0·1	—1·4	—1	—1·1
South Bengal	+0·8	—1·7	+1	—0·7
Upper Burma	—0·6	—2·0	—1	—2·2
Central Burma	+0·3	—3·6	—3	—2·0
Lower Burma	+0·8	+0·9	—4	—1·0

December.

Area.	Variation from normal of			
	Maximum temperature.	Minimum temperature.	Humidity.	Cloud.
	°	°		
Assam	—0·6	—2·7	+1	—0·8
North Bengal	—1·2	—2·3	0	+0·1
East Bengal	—0·5	—1·3	0	+0·7
South Bengal	+0·2	—0·3	—5	+1·4
Upper Burma	—2·6	—0·8	—2	—1·1
Central Burma	+0·8	—2·2	—3	—0·9
Lower Burma	+0·3	+1·1	—2	—0·6

The data indicate that this area was cooler than usual and that this effect was first exhibited in the Assam Valley and Upper Burma, and that it was most marked in these areas and extended southwards and westwards from them.

A second noteworthy feature of the pressure distribution was the local deficiency in the west coast districts of the Peninsula, the whole of the Arabian Sea and the western half of the Equatorial belt.

The following gives data in illustration :—

Station or Area.	Pressure anomaly.			
	September.	October.	November.	December.
	"	"	"	"
East Coast	+·009	+·010	+·001	+·005
Deccan	—·006	—·009	—·004	—·011
West Coast	—·001	—·033	—·025	—·007
Amini Devi	+·007	—·038	—·027	—·008
Colombo	+·010	—·044	—·024	+·021
Aden	—·032	—·093	—·061	+·015
Perim	+·016	—·065	—·059	+·024
Zanzibar	—·004	—·066	—·037	+·006
Seychelles	—·006	—·083	—·068	—·010

This feature was persistent throughout the period and was as marked in November when no storms occurred in that sea area as in October when two storms were generated.

The most important feature of the pressure conditions of the period was the large excess of pressure over the Indian area in October and November.

The following gives data :—

Month.	Pressure anomaly (whole India.)	
	8 A.M.	10 and 16 hours.
	"	"
June	+·025	+·023
July	—·017	—·020
August	+·009	+·005
September	—·002	0
October	+·077	+·064
November	+·041	+·033
December	—·022	—·024

The general pressure variations were small in amount in the rains from June to September. There was a slight excess of pressure in June and August when the Bombay current was weak and a slight deficiency in September, when fairly abundant, and general rain was received from both currents.

The sudden termination of the rains at the end of September was accompanied and followed by a much larger and more rapid increase of pressure over the Indian area than usual.

This seasonal increase was, as might be expected, much larger in amount in Northern India than in the Peninsula. It extended over the areas to the north-west of India, but was smaller in amount, as is shown by the following data :—

Station.	Variation from normal of pressure in			
	October.	November.	December.	Period, October to December.
	"	"	"	"
Quetta	+·053	+·033	—·003	+·028
Jask	+·034	—·011	—·049	—·009
Bushire	+·039	—·001	—·023	+·005
Muscat	+·045	—·011	—·017	+·006
Baghdad	+·048	—·062	—·022	—·012
Barnaul	+·078	—·066	—·063	—·017
Omsk	—·057	—·243	—·211	—·170
Baku	—·012	—·057	—·078	—·049
Tashkent	+·105	+·123	+·064	+·097
Tiflis	+·024	+·037	—·001	+·020
Tomsk	+·079	—·103	—·145	—·056
Irkutsk	+·084	+·146	+·205	+·145

After this rapid rise in October pressure increased more slowly than usual over the Indian area, and the excess was hence reduced to ·041″ in November and was replaced by a moderate general deficiency in December, averaging ·022″.

These variations accompanied:—

(1) Higher temperature than usual over Baluchistan, North-Western and Central India, and also to a less extent in the Persian area.

(2) Smaller amount of cloud and decreased humidity over the same areas.

(3) In Persia and Asiatic Turkey the air was damper and skies more clouded than usual.

It is very probable, as is shown later, that the diminished rate of increase of pressure was directly related to the increasing excess of temperature over the Indian area.

The rainfall in India occurred chiefly in the Peninsula and was due to two sets of conditions and actions. The rainfall of the period in the Madras Coast districts and South India occurred under what may be termed the ordinary or normal conditions of the period, *viz.*, from the recurvature and determination of the retreating humid winds in the Bay to the east coast of the peninsula. These winds gave frequent light to moderate showers, chiefly in the coast districts. Storms also occasionally form during the period under special conditions in the centre and south of the Bay. These storms usually pass westwards and give heavy concentrated rain to the areas over which they pass. Two storms or depressions of this class formed in the Bay and advanced the first to East Bengal and the second to the Coromandel coast. The usual number of storms of this class during the period is four.

The second action determining rainfall was the occurrence of a series of three storms in the Arabian Sea off the Malabar and Konkan coasts. Storms very rarely form in the Arabian Sea during this period. Such as occur are usually the continuation of storms which have formed in the Bay, advanced across the Peninsula and passed out into the Arabian sea. The advance of these three storms northwards was accompanied with light to moderate rain in the west coast districts and the Deccan, which hence received more favourable rain than usual in this season.

The year.—The following gives a tabular summary of the meteorological data for the year 1902 for the eleven meteorological provinces of India:—

Provincial Meteorological data for the year 1902.

Province.	Bar. variation.	Mean maximum temperature of year.	Variation of year.	Mean minimum temperature of year.	Variation of year.	Mean daily temperature of year.	Variation of year.	Mean daily range.	Absolute range during year.	Mean monthly absolute range.	Rainfall of year.	Normal rainfall of year.	Variation from normal of year.	Percentage variation of rainfall.
	″	°	°	°	°	°	°	°	°		Inches.	Inches.	Inches	
Burma Coast and Bay Islands	+·022	87·9	+0·6	73·8	+0·7	80·9	+0·6	14·1	37·9	22·6	132·41	146·95*	−9·34*	− 6
Burma Inland	+·026	90·3	−0·2	68·9	−0·3	79·6	−0·2	21·4	58·3	32·7	43·14	46·95	−3·81	− 8
Assam	+·021	82·3	−1·1	65·8	−1·1	74·1	−1·1	16·4	50·7	28·0	107·32	100·20	+7·12	+ 7
Bengal and Orissa	+·021	86·6	−0·1	68·8	−0·3	77·7	−0·2	17·8	54·2	29·3	79·94	71·86	+8·08	+11
Gangetic Plain and Chota Nagpur	+·013	89·3	+1·0	67·2	+0·4	78·2	+0·7	22·0	68·7	36·6	41·12	45·97	−4·85	−11
Upper Sub-Himalayas	+·013	88·4	+1·1	63·5	+0·4	76·0	+0·8	25·1	78·4	40·8	27·75	36·57*	−7·80*	−21
North-Western Frontier Province, Indus Valley and North-Western Rajputana	+·008	93·3	+2·0	66·6	+1·0	80·0	+1·5	26·7	81·8	43·5	7·78	9·99	−2·21	−22
East Rajputana, Central India and Gujarat.	+·013	91·8	+1·6	69·0	+1·5	80·4	+1·6	22·8	68·4	36·6	23·57	28·51*	−3·32*	−12
Deccan	+·016	91·9	+1·5	68·6	+1·2	80·3	+1·4	23·3	67·4	36·4	30·85	39·99*	−8·81*	−22
West Coast	+·008	86·8	+0·7	75·5	+1·1	81·2	+1·0	11·4	30·2	19·0	116·06	101·74	+14·32	+14
South India	+·017	90·6	+0·4	72·7	+0·7	81·6	+0·5	17·9	48·1	28·9	41·93	36·15	+5·78	+ 1

*A reference to Table I at the end of the summary will show that the means in figure columns 12 and 13 are derived from a smaller number of stations than the means in the eleventh figure column. The sum of the figures in columns 12 and 13 therefore will not agree with the figures in column 11.

The mean 8 A.M. pressure of the year was in excess over the whole of India by amounts averaging ·016″. The excess averaged ·022″ in Burma and North-Eastern India and decreased westwards to ·008″ on the West Coast and in the Indus Valley.

The mean maximum temperature of the year was above the normal over the Peninsula and North-Western and Central India. The excess was greatest in the Indus Valley (+2·0°), East Rajputana and Central India (+1·6°) and the Deccan (+1·5°). The mean maximum temperature of the year was in very slight defect in Bengal and Burma Inland and 1·1° in defect in Assam.

The mean temperature of the whole land area was according to the data in Table I 0·6° above the normal, and according to those of Table II in excess. The variations for the year were generally larger than those for the preceding year and equalled or exceded 1° in four of the eleven meteorological provinces. The excess was most marked in East Rajputana, Central India and Gujarat (+1·6°), the Indus Valley and North West Rajputana (+1·5°) and the Deccan (+1·4°). The mean temperature of the year was below the normal in Assam, Bengal and Orissa and Burma Inland. The deficiency was 1·1° in Assam.

The dominating feature of the cold weather period of 1901-02 was the almost entire absence of cold weather storms and the consequent scanty precipitation, more especially on the higher mountain ranges of North-Western India. Data have been given in the preceding discussion.

The following gives data for representative stations in the areas where the deficiency was greatest in actual amount as well as relatively to the normal:—

Area.	Station.	Rainfall of period, January and February.		
		Actual 1902.	Normal.	Percentage variation from normal.
		Inches.	Inches.	
Western Himalayas.	Kilba	3·19	10·91	−71
	Simla	0·89	5·71	−84
	Srinagar	0·61	6·29	−90
	Kailang	1·47	5·94	−75
	Leh	0·01	0·66	−98
Eastern Himalayas	Darjeeling	0·03	1·72	−98
United Provinces	Allahabad	0·64	1·23	−48
	Lucknow	0	1·40	−100
	Roorkee	0	3·00	−100
Punjab	Lahore	0·03	2·22	−99
	Delhi	0	1·94	−100
	Rawalpindi	0·01	4·98	−100
	Peshawar	0·12	2·82	−96
Sind	Jacobabad	0	0·61	−100
Rajputana	Jaipur	0	0·77	−100
	Jodhpur	0	0·34	−100
	Bikaner	0	0·65	−100
Afghanistan	Kabul	0·61	2·22	−73
Baluchistan	Quetta	0·11	4·24	−97
	Kalat	0·02	2·05	−99
Persia	Bushire	1·08	5·47	−80
Asiatic Turkey	Baghdad	0·57	3·55	−84
Central Asia	Kashgar	0·03	0·39	−92

The preceding data show that over the whole area included in the table, the rainfall of the period was less than ten per cent. or one-tenth of the normal and also that the deficiency was most marked in actual amount at the high level stations in the Western Himalayas. The area of scanty cold weather precipitation hence included the Western Himalayan region, Central Asia (probably), Northern and Central India, Afghanistan, Baluchistan, South Persia and the Euphrates and Tigris Valley. How much further it extended northwards and westwards cannot, in the absence of definite information and comparative data, be ascertained. The data for Kashgar suggest that it extended over a considerable portion of Central Asia.

It is desirable to ascertain whether the area of scanty rainfall in the cold weather period extended eastwards and southwards beyond the limits given above.

The following gives data for the Peninsula, Burma, etc.:—

Area.	Station.	Rainfall of period, January and February.			
		Actual, 1902.	Normal.	Variation of actual from normal.	Percentage variation from normal.
		Inches.	Inches.	Inches.	
Peninsula	Nagpur	0	0·81	−0·81	−100
	Madras	1·33	0·75	+0·58	+ 77
	Bellary	0	0·11	−0·11	−100
	Trichinopoly	4·17	1·06	+3·11	+293
	Tinnevelly	8·47	2·50	+5·97	+239
	Bombay	0	0.12	−0·12	−100
	Cochin	0·18	1·41	−1·23	− 87
	Trivandrum	3·06	1·27	+1·79	+141
Burma	Bhamo	0·65	1·11	−0·46	− 41
	Mandalay	0	0·10	−0·10	−100
	Thayetmyo	0	0·06	−0·06	−100
	Rangoon	0	0·43	−0·43	−100
	Mergui	2·89	2·64	+0·25	+ 9
Extra India	Seychelles	30·46	30·48	−0·02	0
	Zanzibar	4·05	4·75	−0·70	− 15
	Mauritius	19·72	14·97	+4·75	+ 32

The data indicate that the rainfall of the period was as largely in defect over the northern half of the Peninsula and Burma as in Northern India. It was, on the other hand, in large excess in Southern India, normal in Tenasserim, and at the Seychelles and Zanzibar and in moderate excess at Mauritius.

The cold weathers during the past 25 years characterized by similar meteorological features (more specially scanty rain and snowfall) are those of 1867, 1879, 1880, 1882, 1884, 1887 1890, 1892, 1899 and 1902.

The following gives comparative rainfall variation

data and the general character of the snowfall in the Western Himalayas in these years :—

Year.	Rainfall variation of period, January and February.		Snowfall in the West Himalayas.
	Punjab.	United Provinces of Agra and Oudh.	
	Inches.	Inches.	
1867	?	?	Largely below the normal.
1879	—1·87	—1·05	Unusually scanty.
1880	—0·68	—0·24	Much below the average.
1882	+0·64	—·058	Largely below the normal.
1884	—·075	—1·27	Probably heavier than usual.
1887	—1·14	+0·03	Much below the nor mal.
1890	—1·48	—1·13	Small in amount.
1892	—1·06	+0·01	Abnormally small in amount.
1899	—1·10	—·028	In slight defect.
1902	—1·92	—1·12	Exceptionally light and much below the normal.
Normal rainfall of period.	1·96	1·37	

The years which most closely resemble 1902 are 1867, 1879 and 1890 or 1892, separated by intervals approximating closely to the mean sun spot period.

The following gives the number of cold weather storms, during which fairly general rain (light to moderate in amount) fell in North-Western India in each of these years :—

Year.	Number of cold weather storms accompanied with fairly general rain in Northern India in January and February.	Number of storms accompanied with a secondar depression.
1879	0	0
1880	1	1
1882	2	1
1884	1	1
1887	2	2
1890	1	1
1892	1	1
1899	2	2
1902	0	0
Normal or average number.	About 4	About 2 or 3

The following table gives mean pressure anomaly data of India for the cold weather periods of these years for which data are available :—

Year.	Variation of pressure in the Indian area from the normal in		
	January.	February.	Mean of period.
	"	"	"
1879	—·009	—·026	—·018
1880	—·033	—·022	—·028
1882	+·024	—·015	+·005
1884	+·034	+·007	+·021
1887	—·071	+·005	—·033
1890	—·042	—·002	—·022
1892	+·009	—·036	—·024
1899	—·003	—·040	—·022
1902	—·012	+·088	+·038

The preceding data indicate that there is no definite relation between the variations of the mean pressure in India from the normal in these periods of scanty cold weather rainfall and the general character of the precipitation. Pressure was in six out of the nine years in defect, the deficiency in three years accompanying increased temperature, the usual rule in India.

The following gives the vertical anomalies for certain pairs of stations for each of these years in the cold weather period :—

Year.	Vertical pressure anomaly.							
	Leh and Lahore.		Murree and Peshawar.		Quetta and Jacobabad.		Simla and Ludhiana.	
	January.	February.	January.	February.	January.	February.	January.	February.
	"	"	"	"	"	"	"	"
1879	+·048	+·038	+·032	+·043				
1880	+·073	—·019	+·015	—·038			+·068	?
1882	—·003	—·022	+·006	—·021			—·005	—·018
1884	+·018	—·017	+·026	+·011	—·004	+·021	+·001	—·008
1887	—·068	+·022	—·039	+·004	—·028	+·011	—·024	+·001
1890	+·073	+·036	+·029	+·016	+·085	+·042	+·042	+·032
1892	+·076	+·100	+·032	+·052	+·046	+·093	+·017	+·042
1899	+·019	+·118	—·040	+·020	+·010	+·057	—·043	+·046
1902	+·115	+·065	+·067	+·058	+·086	+·060	+·047	+·034

The vertical anomalies were positive and large in amount in the cold weather periods of 1879, 1890, 1892 and 1902. In the remaining years they were generally small in amount and irregular in character.

The usual meteorological conditions in India during cold weather periods of scanty rainfall are :—

(1) Increased temperature, usually both by day and night.
(2) Decreased aqueous vapour pressure and humidity.
(3) Decreased cloud amount.

These conditions are as marked at the hill stations as in the plains.

The following gives comparative temperature data for the years for which pressure data have been given :—

Year.	Variation from normal of mean temperature in the Indian area.		
	January.	February.	Mean of period.
	°	°	°
1879	+0·8	+1·1	+1·0
1880	+0·6	—1·4	—0·4
1882	+1·4	—0·7	+0·4
1884	—0·6	—1·1	—0·9
1887	—0·7	—0·5	—0·6
1890	+0·9	+1·6	+1·3
1892	+2·0	+2·0	+2·0
1899	—2·2	+0·9	—0·7
1902	+2·0	+2·1	+2·1

Temperature was hence considerably to largely in excess in 1879, 1890, 1892 and 1902. The year 1892 corresponded very closely with 1902 in its variations.

The two following tables give data showing the variations of humidity and cloud from the normal in India in the same cold weather periods :—

Year.	Variation from normal in the Indian area.					
	Absolute humidity.			Relative humidity.		
	January.	February.	Mean of period.	January.	February.	Mean of period.
	"	"	"			
1879	—·032	—·005	—·019	—6	—3	—5
1880	—·017	—·016	—·017	—2	—1	—2
1882	+·018	—·015	+·002	+1	—2	—1
1884	—·008	—·018	—·013	0	—1	—1
1887	+·003	—·037	—·017	+3	—4	—1
1890	—·018	—·008	—·013	—4	—4	—4
1892	—·002	+·015	+·007	—3	—1	—2
1899	—·054	+·003	—·026	—6	—1	—4
1902	—·011	—·027	—·019	—6	—8	—7

Year.	Variation from normal of mean cloud amount in the Indian area.		
	January.	February.	Mean of period.
1879	—1·0	+0·1	—0·5
1880	+0·6	+0·2	+0·4
1882	0	—0·4	—0·2
1884	—0·2	—0·1	—0·2
1887	+0·4	—0·6	—0·1
1890	—0·5	—0·4	—0·5
1892	—0·1	+0·1	0
1899	—0·5	—0·1	—0·3
1902	—0·8	—0·4	—0·6

The air was notably drier than usual in the cold weather periods of the years named, more especially in 1879, 1890, 1899 and 1902. This was partly a result of decreased aqueous vapour present in the air, and partly of increased temperature.

The variations of the cloud amount were negative and greater than 0·4 in the years 1879, 1890 and 1902.

The following gives corresponding temperature data for hill and Extra Indian stations :—

Station.	Variation from normal of mean temperature during period January and February.								
	1879.	1880.	1882.	1884.	1887.	1890.	1892.	1899.	1902.
	°	°	°	°	°	°	°	°	°
Leh	+5·7	—0·5	+1·8	+3·6	—0·9	+6·3	+4·9	—8·5	+4·7
Murree	+4·6	+0·9	—0·4	+0·5	—2·0	+4·5	+3·6	—0·3	+5·9
Simla	+3·4	?	+0·7	+1·4	—1·0	+4·7	+1·7	—1·8	+3·8
Ranikhet	+1·5	+0·4	—0·1	—0·7	—1·0	+2·5	+2·2	—1·4	+2·8
Darjeeling	+1·8	+0·5	+0·8	—1·4	—2·7	+3·8	+0·9	?	+1·4
Mount Abu	+1·5	+0·8	?	—0·8	+0·3	?	+2·9	—0·6	+3·8
Quetta	?	?	—1·0	+1·6	—0·7	+2·5	+2·9	+0·5	+2·7
Bushire	?	—1·3	—0·5	+1·4	—1·1	?	+1·1	—1·0	+2·3
Baghdad								+0·3	+4·0
Kashgar								+2·8	+2·6

The years 1879, 1890, 1892 and 1902 were characterized by excessive temperature at the hill stations in North-Western India.

The excess in each of these years (except 1902) was greatest at the most elevated station, *viz.*, Leh, and decreased in amount eastwards from Murree to Darjeeling. It was also large and marked at Mount Abu, Quetta, Baghdad and Kashgar and hence over the whole area to the north-west of North-Western India.

The two following tables give the variations of the abso-

lute and relative humidity for the same periods at the same stations :—

Station.	Variation from normal of mean absolute humidity during period January and February.								
	1879.	1880.	1882.	1884.	1887.	1890.	1892.	1899.	1902.
	"	"	"	"	"	"	"	"	"
Leh	?	?	?	+·008	?	+·021	+·019	—·029	—·030
Murree	—·018	—·009	+·011	+·018	+·033	—·019	+·005	—·010	—·015
Simla	?	?	?	—·010	—·005	—·018	—·016	—·028	—·036
Ranikhet	—·021	+·001	+·009	+·002	+·011	—·013	+·001	?	—·015
Darjeeling	+·012	+·009	+·005	?	?	+·019	+·014	?	?
Mount Abu	+·009	—·015	?	+·020	—·004	?	+·051	—·037	—·033
Quetta	?	?	—·002	+·021	+·008	—·036	—·029	—·028	—·025
Bushire	?	—·007	—·023	+·030	—·027	+·012	+·045	+·002	—·001
Baghdad						+·046	—·069	—·012	—·026

Station.	Variation from normal of mean relative humidity during period January and February.								
	1879.	1880.	1882.	1884.	1887.	1890.	1892.	1899.	1902.
Leh	?	?	?	+4	?	+ 3	+ 3	—10	—30
Murree	—16	—3	+5	+6	+17	—16	— 6	— 6	—22
Simla	?	?	?	—3	+ 4	—13	— 9	— 6	-20
Ranikhet	—10	—1	+2	—1	+ 5	— 9	— 6	?	—12
Darjeeling	— 1	+3	+1	?	?	+ 4	+ 3	?	?
Mount Abu	+ 2	—4	?	+5	— 1	?	+ 6	— 7	—12
Quetta	?	?	0	+1	+ 4	—16	—14	—13	—15
Bushire	?	+2	—6	+1	+ 2	?	+ 2	?	— 5
Baghdad						+5	—27	+ 5	— 8

The cold weather periods were abnormally dry at the hill stations in 1879, 1890, 1899 and 1902, more especially in the year 1902. This feature was very prominent at Leh in that year.

The following table gives corresponding data for cloud :—

Station.	Variation from normal of mean cloud amount during period January and February.								
	1879.	1880.	1882.	1884.	1887.	1890.	892.	1899.	1902.
Leh	—0·4	—1·1	+1·1	+0·7	0	—0·7	—0·2	—1·0	—2·2
Murree	—0·6	—0·4	+1·1	+0·5	+0·2	—1·0	+0·2	—2·3	—2·0
Simla	?	?	?	0	+0·6	—0·5	—0·3	—1·0	—2·8
Ranikhet	—0·2	+0·1	+0·5	+0·5	—0·1	—1·1	+0·1	—0·9	—2·5
Darjeeling	+0·3	+0·4	—1·9	—1·0	+1·3	+0·2	+0·2	+0·4	—1·0
Mount Abu	—1·0	—0·3	?	—0·6	—1·0	?	—0·4	—1·7	—1·2
Quetta	?	?	+0·7	+0·9	—0·5	—0·7	—1·0	—0·3	—1·4
Baghdad						+0·8	?	+0·8	+0·3
Kashgar								—1·2	—2·7

There was less cloud than usual at these stations in the majority of these years. Cloud was very deficient in 1902, 1899 and 1890. This feature was most marked in 1902 and it is noteworthy that the deficiency was as great at Kashgar as at the Himalayan hill stations.

It will thus be seen that the cold weathers of 1879, 1890 and 1892 resembled more or less closely the cold weather of 1902. They had the following features in common :—

(1) Deficiency of pressure in January and February of each period except February 1902, when there was a large excess of pressure, unique in amount and character.

(2) Increased temperature on the mean of each of the periods. An average excess of 1°·0 of temperature accompanied a deficiency of about ·010" to ·015" of pressure.

(3) Large positive vertical pressure anomalies in all these years.

(4) Deficiency of aqueous vapour pressure and of humidity.

(5) Almost entire absence of cold-weather storms.

(6) Very scanty precipitation, barely averaging 10 to 30 per cent. of the normal.

(7) The deficiency of rainfall in all these years, so far as can be ascertained, extended over nearly the whole of the Persian area and a large portion of Central Asia as well as over Northern and Central India and Burma.

It has not been possible to obtain information to enable the limits of the area over which the abnormal features disclosed by the Indian observations for January and February 1902 extended to be ascertained.

The following gives variation data of pressure for the month of January 1902 at certain Russian stations :—

Station.		January 1902.	
		Variation of pressure from normal.	Variation of temperature from normal.
		"	°
Odessa	Mean of 21 days	—·121	+9·7
Batoum	" 12 "	+·040	—1·8
Tiflis	" 12 "	—·015	—0·7
Baku	" 12 "	—·118	+2·2
Tashkent	" 29 "	+·116	+5·0
Irkutsk	" 30 "	—·120	+3·2

So far as can be judged from the more or less imperfect information available, pressure was below the normal during the greater part of the month over the Central Asia anti-cyclone (defined by the isobar of 30·20"), and also probably on the mean of the month, the pressure in

that anti-cyclonic area was from ·05″ to ·10″ lower than usual.

The following table gives corresponding data for February 1902 :—

Station.		February.	
		Variation of pressure from normal.	Variation of temperature from normal.
		″	°
Odessa	Mean of 23 days	+·078	+6·3
Batoum	" 13 "	+·009	+5·4
Tiflis	" 13 "	+·137	+4·0
Baku	" 13 "	+·097	+3·4
Tashkent	" 28 "	+·252	+2·9
Irkutsk	" 28 "	+·052	+7·0

The available data indicate that pressure was in excess during by far the greater part of the month in the Central Asia anti-cyclone, and was more or less considerably in excess on the mean of the month. The abnormal pressure conditions in February in that area were hence the inverse or opposite of those of January.

The most noteworthy feature of the period in that area was the large excess of temperature, ranging from 3° to 7°.

It would hence appear that the variations in the intensity of the Central Asia anti-cyclone are not the immediate cause or main factor in the variations of the cold weather rainfall in the Indian monsoon region as opposite or inverse conditions in January and February 1902 accompanied failure of the cold weather rains in both months.

An examination of the data shows that in the south-west monsoons of 1878, 1889 and 1901 pressure decreased steadily to considerably below the normal during the south-west monsoon period. *Pari passu* pressure increased at Mauritius in each of of the three years.

These changes are most simply and probably adequately explained by the assumption of a greater outflow than usual from India southwards during these south-west monsoon and hence giving rise to an accumulation in the southern hemisphere over the Indian ocean. Faint indications of this are afforded by the pressure observations recorded at the Seychelles and Zanzibar. The general pressure conditions at the end of the south-west monsoon of each of these years were :—

(1) Low and deficient pressure in India.

(2) High and excessive pressure at Mauritius.

The following gives actual data illustrating these conditions :—

Month.	Mean pressure variation of Indian land area in		
	1878-79.	1889-90.	1901-02.
	″	″	″
November	—·057	—·037	—·010
December	—·049	—·016	+·019
January	—·009	—·042	—·012

The following gives similar data for Mauritius :—

Month.	Mean pressure variation of Mauritius.		
	1878-79.	1889-90.	1901-02.
	″	″	″
November	+·014	—·008	+·015
December	—·046	+·005	+·008
January	+·031	+·028	+·012

Before proceeding with the general discussion, it is necessary to point out that the chief features of the meteorology of February 1902 were unique. It may be mentioned as a curious and striking example of the principle of repetition which forms a marked feature of Indian meteorology that February 1903 was characterized by the same features but somewhat less broadly marked.

In each of these two months over the large area including the Indian seas north of Lat. 12° S., India, Central Asia, Baluchistan, Afghanistan, Persia and probably Arabia, pressure was very largely above the normal on the mean of the month and temperature also largely above. Allowing for the effect of higher temperature than usual, it is probable that due to some very abnormal and large action there was in February 1902 an excess of pressure of ·12 inch, equivalent to an accumulation of about 7 lbs. per square foot over India, and twice that amount over a considerable portion of Central Asia. This excess of pressure was remarkably persistent throughout the month and can only be explained by an influx from some more or less distant area. This influx must have been accompanied with a corresponding outflow from some other large region. The only evidence at present available suggests that the outflow in the present case was from the south over the Indian Ocean and adjacent land regions but a satisfactory discussion will not be possible before full information is in the hands of investigators.

It is however very noteworthy that the abnormal pressure conditions were opposite in character in the central Asia anti-cyclone in January and February, and that the general character of the weather as regards the prevalence of storms and precipitation was similar in these two months. It hence suggests that the variations of the intensity of the winter anti-cyclone in Central Asia have little or nothing to do in determining the occurrence of cold weather storms, whatever effect its position may have in modifying their place of origin.

The investigation of the phenomena of the cold weather storms has shown conclusively that they are disturbances in the field of the upper return current of the dry or north-east monsoon. The lower air movement in the Indian monsoon region is from north to south. It is feeble in Upper India and the head of the Arabian Sea, but increases in intensity in its passage over the sea area to the neighbourhood of the equator. It crosses that line during the months of January and February and is continued as a horizontal movement to about Lat. 8° or 10° S. when it is absorbed into the belt of calms and is converted into a vertical movement. A portion of the air which rises upwards over that belt is then diverted northwards and forms the upper return movement to the

lower air movement from the north-east. There is undoubtedly a considerable interchange of air between the northern and southern hemispheres. It has not yet been established whether this is due in the cold weather to a balance between the influx into the belt of calms and the outflow northwards above or whether it is due to some more general movement. The interchange is, however, comparatively small in amount in January and February and it is hence probable that the outflow above and inflow below approximately balance in these months. The upper current advances from a region of high temperature in the equatorial belt to a region of relatively low temperature (20° to 30° lower at the earth's surface). The fall of temperature chiefly occurs between Lat. 20° and Lat. 35° N. to the south of the Central Asia anti-cyclone. If the conditions of surface level were similar to those obtaining in North America, *viz.*, a vast plain extending northwards from Lat. 20° to the Arctic circle, this current advancing northwards would tend to descend on approaching and passing into the anti-cyclone. In Southern Asia the conditions are largely modified by the presence of the plateaus of Persia and Baluchistan and by the mountain areas of the Hindu Khush and Himalayas. The temperature conditions of the plateau areas vary very largely. Occasionally temperature rises very largely above the normal. It is hence probable that the disturbance in the upper current is in part a result of these temperature variations and in part of the actions set up by approach to these plateaus and mountain ranges.

These facts, however, in no way suggest an explanation of the great variations in the character of the cold weather in the northern part of the Indian monsoon area. Apparently the explanation must be sought either in some considerable variations of the character of the upper return current or in the position and character of the Central Asia anti-cyclone.

The following remarks are put forward tentatively in the absence of sufficient data to verify them and the conclusions based on them.

The fact that heavier rain during the south-west monsoon period over India generally accompanies and is followed by a deficiency of pressure in India, suggests that the uptake or ascensional movement is greater in such years than usual; and hence also that there is a greater outflow (chiefly southwards) than usual. This is further confirmed by the fact that in such seasons, pressure is generally higher than usual at Mauritius, indicating that there is an accumulation of air over that part of the Indian ocean.

These conditions in such cases are marked in December and tend to persist during the next two months during which the double circulation of the north-east monsoon and south-east trades obtains in the Indian Ocean. Under these pressure conditions, the south-east trades will be, as a rule, stronger than usual and the north-east monsoon feebler than usual. The ascensional movement due to the south-east trades will be also more vigorous over the intermediate region of calms, variable winds and rain squalls, and hence the outflow of both currents will probably occur at a higher level. If such be the case, the northern upper current will be drier and of smaller volume than usual. If this explanation be partially correct, it would follow that years of scanty cold weather rains should follow, as a rule, years of more abundant south-west monsoon rainfall than usual, and also that the rainfall in such cold weather seasons should be larger in amount in the intermediate belt than usual.

The abnormal features of the meteorology of the hot weather in India are largely determined by the character of the previous cold weather. A cold weather of scanty rainfall is almost invariably followed by more disturbed weather in Northern India during March (and occasionally in April), and hence by larger precipitation than usual, which to some extent compensates for the deficiency of the previous three months. This rainfall is also usually, but not invariably, due to the same actions as in the, cold weather, *viz.*, the passage eastwards from the Persian area of shallow depressions or low pressure waves, and is hence a delayed cold weather rainfall.

The precipitation in the Western Himalayas in March 1902 was very heavy, as is shown by the following data:—

Station.	Rainfall.			
	Actual, March 1902.	Normal March.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Leh	0·70	0·22	+0·48	+218
Murree	2·95	4·05	—1·10	— 27
Srinagar	4·20	3·14	+1·06	+ 34
Gilgit	1·23	0·59	+0·64	+108
Dalhousie	2·55	3·93	—1·38	— 35
Dharamsala	4·22	3·83	+0·39	+ 10
Kailang	7·48	3·58	+3·90	+109
Simla	2·18	2·07	+0·11	+ 5
Kilba	6·67	6·00	+0·67	+ 11
Poo	8·01	4·11	+3·90	+ 95
Plach	5·25	2·90	+2·35	+ 81
Kulu	7·46	4·61	+2·85	+ 62
Palampur	5·92	3·75	+2·17	+ 58
Nagar	9·63	5·39	+4·24	+ 79
Joshimath	7·52	3·23	+4·29	+133

The snowfall reports received from district officers and other authorities show that the precipitation in the months of March and April was light to moderate in amount and on the whole, less than the normal in the Afghan and Baluch mountain and plateau areas and Chitral. It was, on the other hand, locally heavy and excessive in the Chamba, Kulu, Simla and Kumaon hill districts.

The following gives mean rainfall data for the month of March for North-Western India :—

Area.	Rainfall.			
	Average actual, March 1902.	Average normal, March.	Variation of actual from normal.	Percentage variation from normal.
	Inch.	Inch.	Inch.	
Punjab	0·61	0·92	—0·31	— 34
Sind	0·01	0·16	—0·15	— 94
Rajputana	0	0·13	—0·13	—100
United Provinces of Agra and Oudh.	0·09	0·36	—0·27	— 75

The snowfall in the Western Himalayas occurred chiefly over the higher elevations, and hence produced no important extension of the area of snowfall accumulation and hence had little effect in reducing temperature. Temperature in March continued almost as largely, on the average of the month, above the normal as in February. The excess averaged 1°·7 for Tropical India and 2°·8 for Extra Tropical India. It was actually greatest in a portion of North-Western India, Baluchistan and Persia for which data are given below :—

Area.	Station.	Variation from normal of		
		Maximum temperature, March 1902.	Minimum temperature, March 1902.	Mean temperature, March 1902.
		°	°	°
Persia	Bushire	+5·7	+5·6	+5·7
	Jask	+6·0	+4·4	+5·2
	Muscat	+5·0	+5·0	+5·0
Baluchistan	Chaman	+7·5	+6·0	+6·8
	Quetta	+6·5	+2·1	+4·3
North-Western India.	Jacobabad	+5·6	+5·9	+5·8
	Hyderabad	+5·4	+2·9	+4·2
	Ajmer	+5·7	+6·3	+6·0
	Pachpadra	+4·9	+6·6	+5·8
	Deesa	+5·9	+4·1	+5·0
	Jaipur	+5·4	+4·4	+4·9

The most important results of the prevailing high temperature in February and March were, firstly, the earlier establishment of local sea winds on the North Bombay coast than usual in February, and secondly, the increased intensity of the sea winds on the Bengal and North Bombay coasts in March and April.

The following gives data :—

Station.	Variation from normal of wind velocity per diem.			
	Actual.		Percentage.	
	March 1902.	April 1902.	March 1902.	April 1902.
	Miles.	Miles.		
False Point	— 8	— 15	— 3	— 4
Saugor Island	+36	+ 88	+12	+21
Veraval	+96	+122	+61	+71
Deesa	—49	— 11	—23	— 5
Mount Abu	+14	+ 32	+ 9	+17
Rajkot	— 2	+ 53	— 1	+20
Bhuj	+29	+ 93	+15	+35

The almost invariable tendency of the conditions stated above, *viz.*, scanty rainfall and higher temperature in the cold weather than usual followed by higher temperature than usual in March is to give rise to a much stronger local indraught into North-Eastern India from the head of the Bay and hence generally to more frequent series of thunderstorms and heavier rainfall than usual in April or May. The following gives comparative data for the hot weather rainfall in North-Eastern India of twelve years more or less resembling the year 1902 :—

Year.	Percentage variation of hot weather rainfall from normal in			
	Assam.	East Bengal.	North Bengal.	South-West Bengal.
1879	— 3	—55	—10	—68
1880	—38	+15	+ 7	+ 6
1881	+16	+72	+30	+31
1882	— 4	+ 2	—21	— 8
1890	—15	+ 1	—10	—23
1892	+53	+16	+52	—22
1895	— 4	+19	— 6	—17
1896	+ 9	— 2	+11	—29
1897	— 6	—22	+ 5	— 6
1899	— 1	+29	—10	+ 5
1900	+ 5	—24	—26	—12
1901	—37	—37	—40	— 9
1902	+ 1	+67	+29	+65
Mean of whole	— 2	+ 6	+ 1	— 7

These conditions were strongly shown in the month of April 1902 over North-Eastern India. Series of thunderstorms and nor'westers were unusually frequent and occasionally of considerable to great intensity and were in many cases accompanied in Assam and North Bengal by

hailstorms which caused much damage to tea gardens. The following gives a comparative statement of the rainfall of April 1902 for the whole of Assam and Bengal :—

Division.	Rainfall.			
	Average actual, April 1902.	Average normal, April.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Assam Surma	20·14	13·42	+6·72	+ 50
" Hills	12·83	8·00	+4·83	+ 60
" Brahmaputra	11·28	8·09	+3·19	+ 39
Eastern Bengal	13·52	4·24	+9·28	+219
Deltaic "	5·88	2·31	+3·57	+155
Central "	3·71	1·41	+2·30	+163
North "	4·85	3·97	+0·88	+ 22
Bengal Hills	5·75	4·35	+1·40	+ 32
Orissa	3·13	1·23	+1·90	+154
Chota Nagpur	0·95	0·85	+0·10	+ 12
Bihar (South)	0·51	0·29	+0·22	+ 76
" (North)	0·77	0·80	−0·03	− 4

An important result of these storms was to reduce temperature more or less considerably below the normal on the average of the month in North-Eastern India whilst it remained in excess over the remainder of India. The following data illustrate the first feature :—

Division.	Variation from normal of		
	Maximum temperature, April 1902.	Minimum temperature, April 1902.	Mean temperature, April 1902.
	°	°	°
Assam Surma	−2·8	−1·6	−2·2
" Brahmaputra	−5·1	−2·4	−3·8
Eastern Bengal	−3·2	−2·4	−2·8
Deltaic "	−3·1	−1·3	−2·2
Central "	−5·6	−2·1	−3·9
North "	−5·4	−1·0	−3·2
Bengal Hills	−1·9	−1·4	−1·7
Orissa	−2·4	−0·1	−1·3
Chota Nagpur	−1·2	+0·3	−0·5
Bihar (South)	−2·0	+0·4	−0·8
" (North)	−4·5	−0·3	−2·4

Over the remainder of India weather was on the whole drier and warmer than usual. Temperature was most largely in excess in the same areas as in March. The following gives comparative data for representative stations at which the temperature was more than 2° in excess in April :—

Station.	Variation from normal of		
	Maximum temperature, April 1902.	Minimum temperature, April 1902.	Mean temperature, April 1902.
	°	°	°
Bushire	+3·4	+3·1	+3·3
Baghdad	+2·7	+3·3	+3·0
Jask	+1·4	+2·9	+2·2
Kurrachee	+2·9	+5·4	+4·2
Deesa	+2·5	+4·0	+3·3
Hyderabad	+2·4	+3·1	+2·8
Jacobabad	+2·0	+3·0	+2·5
Ajmer	+0·7	+3·6	+2·2
Rajkot	+0·9	+3·8	+2·4
Bhuj	+1·7	+2·8	+2·3

Similar conditions continued throughout the month of May.

The following statement shows that the indraught from the adjacent sea areas across the North Bombay and Bengal coasts was larger than usual :—

Station.	Variation from normal of wind velocity per diem.	
	Actual, May 1902.	Percentage, May 1902.
	Miles.	
Saugor Island	+ 34	+ 9
Veraval	+ 22	+10
Deesa	+ 2	+ 1
Mount Abu	+ 76	+31
Rajkot	+ 39	+11
Bhuj	+170	+46

The rainfall in North-Eastern India, due to the same causes and actions as in April, was in excess over practi-

cally the same areas, but to a smaller extent relatively to the normal. The following gives data :—

Division.	Rainfall			
	Average actual, May 1902.	Average normal, May.	Variation of actual from normal.	Percentage variation from normal.
	Inches.	Inches.	Inches.	
Assam Surma	15·28	18·00	−2·62	−15
„ Hills	11·12	15·05	−3·93	−26
„ Brahmaputra	7·97	12·03	−4·06	−34
Eastern Bengal	13·08	10·45	+2·63	+25
Deltaic „	9·45	6·16	+3·29	+53
Central „	5·35	4·57	+0·78	+17
North „	11·71	10·65	+1·06	+10
Bengal Hills	7·80	8·45	−0·65	− 8
Orissa	3·22	3·74	−0·52	−14
Chota Nagpur	2·31	2·22	+0·09	+ 4
South Bihar	0·83	1·42	−0·59	−42
North „	3·64	3·07	+0·57	+19

The mean temperature of the month in North Eastern India was, as in April, below the normal but to a smaller amount than in that month. The following gives data :—

Division.	Variation from normal of		
	Maximum temperature, May 1902.	Minimum temperature, May 1902.	Mean temperature, May 1902.
	°	°	°
Assam Surma	−0·8?	+1·0?	+0·4?
„ Brahmaputra	−0·4	−0·2	−0·3
Eastern Bengal	−1·8	−0·9	−1·4
Deltaic „	−1·8	−0·9	−1·4
Central „	−3·1	−1·2	−2·2
North „	−1·1	−0·7	−0·9
Bengal Hills	−0·1	−1·2	−0·7
Orissa	−1·5	−0·2	−0·9
Chota Nagpur	−2·2	−1·5	−1·9
South Bihar	−0·5	+0·9	+0·2
North „	−2·1	−0·2	−1·2

Over the remainder of India, temperature in May was generally above the average, but the variations were small and less than 2° except in the areas for which data are given below :—

Station.	Variation from normal of		
	Maximum temperature, May 1902.	Minimum temperature, May 1902.	Mean temperature, May 1902.
	°	°	°
Baghdad	+7·8	+4·0	+5·9
Ispahan	+3·2	+2·6	+2·9
Kashgar	+2·9	+1·8	+2·4
Peshawar	+4·1	+2·7	+3·4
Mooltan	+2·8	+4·0	+3·4
Rawalpindi	+3·4	+3·0	+3.2
Sialkot	+2·1	+4·1	+3·1
Lahore	0	+4·5	+2·3
Dera Ismail Khan	+2·6	+1·6	+2·1
Jacobabad	+3·5	+2·5	+3·0
Pachmarhi	+3·2	+1·8	+2·5
Nagpur	+1·4	+2·8	+2·1
Ahmednagar	+3·4	+1·5	+2·5
Sholapur	+1·4	+2·8	+2·1
Hyderabad Deccan	+2·0	+4·5	+3·3
Secunderabad	+3·2	+3·2	+3·2
Gulbarga	+2·4	+2·6	+2·5

The preceding remarks have shown that the chief features of the hot weather were very persistent and that they were either the direct continuation of features and conditions of the cold weather period, or that they were the result of special actions set up locally in the hot weather due to these antecedent persistent conditions.

The chief persistent features were as follows :—

(1) Higher temperature than usual over the whole of the interior of North-Western and Central India, the North Deccan, Baluchistan, Afghanistan, Persia and probably the greater part of Central Asia.

(2) Decreased humidity and cloud in the same areas.

(3) Precipitation below the small normal of the period.

The chief features of the local variations from these general conditions were in the area including the greater part of North Eastern India and Burma. These local features are :—

(1) Stronger sea winds than usual on the North Bombay and Bengal coasts.

(2) More frequent series of thunder storms in North-Eastern India during the months of April and May giving increased rainfall.

(3) Persistent lower temperature than usual.

(4) Increased humidity.

(5) Large amount of cloud.

(6) Increased strength of the lower air circulation in India, more especially in the open coast districts of Bengal, North Bombay and Lower Burma.

The only remaining point to be noticed is the effect of these conditions upon the general and local pressure features of the country.

The following gives data of the general pressure and temperature conditions in India. :—

Month.	Variation from normal of					
	Pressure			Temperature		
	Extra Tropical India.	Tropical India.	Whole India.	Extra Tropical India.	Tropical India.	Whole India.
	"	"	"	°	°	°
March	—·017	—·009	—·013	+2·8	+1·7	+2·3
April	—·014	0	—·007	+0·2	+0·9	+0.5
May	0	+·008	+·004	+1·0	+1·4	+1·2

The pressure variations were small in amount, and in March and April were related directly to the temperature variations.

This is an illustration of the fact that the meteorology of India is more local in character and more independent of external actions in the hot weather months than during any other period of the year.

An examination of the charts for the period shows that the larger local variations were dependent directly upon the temperature conditions of India. The local variations were very small in March, a month of general and similar excess of temperature. In April and May, pressure was locally in slight to moderate excess over the area of lower temperature than usual in North-Eastern India and was lower relatively to the general condition in the greater part of the area of increased temperature, more especially in the Punjab, Sind and Rajputana.

The conditions in India at the end of the period were favourable to the advance of the south-west monsoon currents.

The meteorology of the south-west monsoon period of 1902 is of singular interest. During the first half the rainfalls due to the Arabian Sea current over a large part of its field of extension was scanty and was interrupted by long breaks of dry, sunny weather, to such an extent, in fact, that there were fears of famine over an area as large as in 1896. A remarkable change occurred in the third week of August. Abundant rain fell during the next five or six weeks over the areas previously threatened with drought and famine, and the season was as a whole favourable over the country generally. Figures are given in the four following tables to illustrate the contrast between the amount and distribution of the rainfall of the two periods. The first table gives variation data of the rainfall of the first half of the monsoon period in the chief areas dependent on the Bombay monsoon current:—

Province.	Division.	Variation of rainfall from normal.					
		Actual variation.			Percentage variation.		
		June, 1902.	July, 1902.	Period, June and July.	June, 1902.	July, 1902.	Period, June and July.
		Inches.	Inches.	Inches.			
Field of Bombay current. — Punjab and North-West Frontier Province.	South Punjab	+ 0·78	— 1·59	— 0·81	+ 48	—34	—13
	Central Punjab	+ 1·10	— 1·31	— 0·21	+ 70	—26	— 3
	Punjab Submontane.	— 0·55	— 1·45	— 2·00	— 20	—17	—18
	North Punjab	+ 1·19	— 0·55	+ 0·64	+107	—12	+11
	West do.	+ 0·66	— 1·03	— 0·37	+ 96	—40	—11
Bombay and Malabar Coast Districts (Madras).	Malabar	—15·21	+21·35	+ 6·14	— 43	+60	+ 9
	Madras South Central.	— 0·37	— 0·26	— 0·63	— 19	—15	—17
	Mysore	— 0·90	+ 1·10	+ 0·20	— 22	+17	+ 2
	Konkan	—10·54	— 2·69	—13·23	— 40	— 7	—20
	Bombay Deccan	— 0·68	— 1·04	— 1·72	— 11	—12	—12
	Hyderabad North	— 2·5	— 3·91	— 5·46	— 47	—35	—40
	Khandesh	— 3·05	— 0·35	— 3·40	— 54	— 4	—24
Central Provinces and Berar.	Berar	— 4·13	+ 1·52	— 2·61	— 73	+16	—17
	Central Provinces West.	— 5·79	— 2·59	— 8·38	— 81	—20	—41
	Central Provinces Central.	— 6·38	— 2·66	— 9·04	— 82	—16	—37
	Central Provinces East.	— 7·33	+ 0·56	— 6·77	— 84	+ 3	—27
Bombay (North).	Gujarat	— 5·46	— 4·13	— 9·64	— 80	—25	—41
	Kathiawar and Cutch.	— 3·49	— 6·37	— 9·86	— 83	—60	—66
	Sind	+ 1·90	— 2·16	— 0·26	+463	—90	— 9
Rajputana and Central India.	Central India East	— 5·71	+ 5·79	+ 0·08	— 84	+54	0
	Rajputana East, Central India West.	— 1·27	+ 2·94	+ 1·67	— 45	+36	+15
	West Rajputana.	+ 0·38	— 2·36	— 1·98	+ 27	—6	—38

The chief inferences from the above are :—

(1) The rainfall over the northern half of the field of the Bombay current including the western and central districts of the Central Provinces, Gujarat, Kathiawar, Cutch and West Rajputana was very scanty.

(2) The rainfall over the Konkan, the eastern districts of the Central Provinces, Berar and Khandesh was in defect to a moderate or considerable extent.

(3) The rainfall over the West Deccan and Southern India was about normal.

In addition the following peculiarities obtained :—

(1) The first heavy burst of rain due to the Bombay current was later than usual. The delay was about seven days in the North Konkan and about three weeks in the Central Provinces, Central India, Rajputana, Gujarat and Kathiawar.

(2) This part of the season was accompanied by more frequent and prolonged breaks than is usual. The most prolonged of these breaks in North Bombay, Rajputana and Central India were from the 17th June to the 4th July, the 20th to the end of July, and the 3rd to the 19th of August.

(3) The weather in the Arabian Sea during the period was such as to indicate that the monsoon current in that area was feebler and of less volume than usual.

The facts may hence be summed up that the Arabian Sea current was in that sea area as a horizontal air movement feebler than usual, and was as a rain-giving current greatly below its normal value. It is not possible at the present stage to ascertain whether, as a whole, the current was of less vertical thickness or volume than usual, or whether it was less charged with aqueous vapour.

The following gives similar data for the rainfall of June and July in the field of the Bay current :—

Province.	Division.	Variation of rainfall from normal. Actual variation. June, 1902.	July, 1902.	Period June and July.	Percentage variation. June, 1902.	July, 1902.	Period June and July.
		Inches	Inches.	Inches.			
Field of Bengal Current. Burma	Tenasserim	—3·86	+ 0·04	—3·82	—10	0	— 5
	Lower Burma Deltaic.	—4·95	+ 3·32	—1·63	—23	+14	— 4
	Central Burma	—1·11	+ 4·56	+3·45	—11	+36	+15
	Upper Burma	+1·49	+ 0·20	+1·69	+23	+ 3	+13
	Arakan	—5·35	+19·77	+14·42	—13	+41	+16
Bengal and Assam.	Eastern Bengal	+5·48	+ 5·56	+11·04	+30	+30	+30
	Assam Surma	+6·74	— 4·39	+2·35	+27	—20	+ 5
	Do. Brahamaputra.	+2·21	— 0·91	+1·30	+15	— 5	+ 4
	Deltaic Bengal	—3·19	+ 2·82	—0·37	—29	+24	— 2
	Central Bengal	—2·51	+ 1·87	—0·64	—24	+15	— 3
	North Bengal	—1·99	+2·94	+0·95	—10	+14	+ 2
	Orissa	—4·27	+ 7·53	+3·26	—45	+63	+15
	Chota Nagpur	—6·18	+ 2·97	—3·21	—67	+21	—14
	South Bihar	—3·77	+ 1·25	—2·52	—54	+10	—13
	North Bihar	—3·51	— 0·06	—3·57	—39	0	—16
United Provinces of Agra and Oudh.	United Provinces East.	—4·25	+ 6·23	+1·98	—85	+53	+12
	South Oudh	—3·98	+ 2·98	—1·00	—82	+27	— 6
	North Oudh	—4·02	+ 5·13	+1·11	—70	+42	+ 6
	United Provinces Central.	—3·79	+ 2·89	—0·90	—86	+26	— 6
	United Provinces West.	—0·56	+ 2·80	+2·24	—21	+38	+22
	United Provinces East Submontane	—4·59	+4·72	+0·13	—70	+37	+ 1
	United Provinces West Submontane.	—1·93	+ 0·57	—1·36	—34	+ 4	— 7
	South-East Punjab	+0·33	+1·32	+1·65	+14	+21	+19

The chief facts respecting the Bay current and its extension in Northern India during this period are as follows :—

(1) The rainfall was practically normal over Burma and Bengal in June, the rains commencing about their normal date. It was generally in moderate excess over the whole of that area in July.

(2) The rains were greatly delayed in Bihar, Chota Nagpur and the United Provinces and the rainfall of June was hence scanty and in large defect. The rainfall was, on the other hand, abundant in July over the whole of that area.

(3) On the mean of the period the rainfall was normal or in moderate excess over the greater part of the area including Burma, Bengal, Assam, and also the United Provinces. It was about 14 per cent. in defect in Bihar and Chota Nagpur, the only areas in which the deficiency exceeded 10 per cent.

(4) The chief inferences from the above are that the Bay current was below its normal strength in June and was more largely determined to East Bengal and Assam than usual, and hence the rainfall was very deficient in the Gangetic Plain and Chota Nagpur, and that it was in July strong and vigorous as a rain-giving current and gave abundant rain over nearly the whole of Northern India and Burma. It was also, as shown by the comparative absence of cyclonic storms, steadier than usual in July.

The following table gives similar information of the rainfall in the field of the Bombay current for the months of August and September :—

Province.	Division.	Variation of rainfall from normal. Actual variation. August, 1902.	September, 1902.	Period August and September.	Percentage variation. August, 1902.	September, 1902.	Period August and September.
		Inches.	Inches.	Inches.			
Field of Bombay Current. Punjab and North-West Frontier Province.	South Punjab	—1·12	— 0·10	— 2·62	—27	— 38	— 31
	Central do.	—1·19	+ 0·58	— 0·61	—25	+ 30	— 9
	Punjab Submontane.	—3·72	— 0·32	— 4·04	—45	— 9	— 34
	North Punjab	—1·21	+ 0·59	— 0·62	—24	+ 30	— 9
	West do.	—0·15	+ 0·15	0	— 7	+ 19	0
Bombay and Malabar Coast Districts (Madras).	Malabar	—5·03	+14·74	+ 9·71	—25	+ 158	+ 33
	Mysore	—1·89	+ 0·55	— 1·34	—37	+ 11	— 14
	Konkan	—4·59	+10·72	+ 6·13	—18	+ 79	+ 16
	Bombay Deccan	—2·33	— 0·97	— 3·30	—39	— 16	— 28
	Hyderabad North	—1·39	+ 1·23	— 0·16	—18	+ 15	— 1
	Khandesh	—1·51	+ 0·32	— 1·19	—24	+ 5	— 9
Central Provinces and Berar.	Berar	—0·11	— 1·93	— 2·04	— 2	— 32	— 16
	Central Provinces West.	—1·45	— 1·90	— 3·35	—14	— 22	— 17
	Central Provinces Central.	—5·52	+ 1·70	— 3·82	—40	+ 21	— 17
	Central Provinces East.	—1·98	— 0·84	— 2·82	—14	— 11	— 13
Bombay (North).	Gujarat	+4·23	+ 6·26	+10·49	+43	+ 95	+ 64
	Kathiawar and Cutch.	+1·82	+ 3·67	+ 5·51	+27	+ 83	+ 49
	Sind	+0·23	+ 2·72	+ 2·95	+10	+579	+110
Rajputana and Central India.	Central India East	—4·21	+ 1·90	— 2·31	—38	+ 32	— 14
	Rajputana East, Central India West.	—3·15	+ 0·93	— 2·22	—42	+ 25	— 19
	West Rajputana	—0·20	— 0·09	— 0·29	— 6	— 4	— 5

The following are the chief inferences:—

(1) The total rainfall of the month of August was more or less below the normal, except in Sind, Gujarat and Kathiawar which received excessive rain during the last ten days of the month from the storms which passed over those districts. The deficiency was due to the prevalence of a general break over North-Western and Western India from the 1st to the 18th of the month.

(2) The rainfall of the month of September was generally in considerable to very large excess. The excess was more than 75 per cent. in the coast districts including Malabar and the Konkan, and in Gujarat, Kathiawar, Cutch and Sind, due to heavy downpours accompanying the passage of cyclonic storms from the Bay across those areas.

(3) The rainfall of the period was in large excess, relatively to the normal, in Malabar, Gujarat Kathiawar and Sind, and in moderate excess in the Konkan and in slight to moderate defect over the remainder of the field of the Bombay current.

The most important inferences are that the Bombay or Arabian sea current was exceedingly feeble during the first fortnight of August, but that it rapidly increased in strength in the third week of August, and was unusually strong and vigorous until the end of September and gave generally abundant rain over its whole area of extension to the West and North Punjab. It also withdrew later than usual from Upper India. The chief feature of the local relative distribution was the excessive rainfall in the areas most largely affected by the storms of the period, including Sind, Gujarat, Kathiawar and Cutch.

The following table gives similar data for the second half of the m nsoon period of 1902 for the areas usually dependent for their rainfall on the Bay monsoon current:—

Province.	Division.	Variation of rainfall from normal. Actual variation. August, 1902.	September, 1902.	Period, August and September.	Percentage variation. August 1902.	September 1902.	Period, August and September.
		Inches.	Inches.	Inches.			
Field of Bengal Current. Burma	Tenasserim	− 4·63	+ 2·86	− 1·77	−11	+ 9	− 2
	Lower Burma Deltaic	− 5.09	− 0·97	− 6·06	−23	− 6	−16
	Central Burma	− 1·92	+ 0·89	− 1·0.	−17	+10	− 5
	Upper Burma	+ 0·93	+ 2·41	+ 3·34	+13	+32	+23
	Arakan	−15·94	+ 2·98	12·96	−40	+15	−22
Bengal and Assam.	Eastern Bengal	− 1·32	+ 1·46	+ 0·14	− 8	+13	0
	Assam Surma	− 1·75	− 1·06	− 2·81	− 8	− 7	− 7
	Do. Brahmaputra.	+ 3·90	+ 5·53	+ 9·43	+27	+49	+36
	Deltaic Bengal	− 0·69	− 0·27	− 0·96	− 6	− 3	− 4

Province.	Division.	Variation of rainfall from normal. Actual variation. August, 1902.	September, 1902.	Period, August and September.	Percentage variation. August, 1902.	September, 1902.	Period, August and September.
		Inches.	Inches.	Inches.			
Field of Bengal Current—*concld.* Bengal and Assam.	Central Bengal	− 1·85	+ 2·41	+ 0·56	−16	+24	+ 3
	North do.	+ 2·76	+ 10·35	+ 13·11	+16	+58	+37
	Orissa	+ 0·43	− 3·28	− 2·85	+ 4	−33	−13
	Chota Nagpur	− 1·80	+ 3·58	+ 1·78	−18	+43	+10
	South Bihar	− 4·42	+ 3·96	− 0·46	−38	+53	− 2
	North do.	− 2·54	+ 4·71	+ 2·17	−21	+45	+10
United Provinces of Agra and Oudh.	United Provinces East.	− 5·29	+ 3·97	− 1·32	−46	+58	− 7
	South Oudh	− 5·74	+ 3·16	− 2·58	−51	+49	−15
	North do.	− 4·65	+ 2·55	− 2·10	−40	+34	−11
	United Provinces Central.	− 6·25	+ 2·68	− 3·57	−59	+48	−22
	United Provinces West.	− 0·76	− 0·89	− 1·65	−10	−21	−14
	United Provinces East Submontane.	− 5·22	+ 2·57	− 2·65	−45	+32	−13
	United Provinces West Submontane	− 2·69	− 0·39	− 3·08	−19	− 6	−15
	South-East Punjab.	− 1·55	− 0·94	− 2·49	−24	−25	−24

The following are the chief inferences from the preceding data—

(1) The rainfall of the month of August was in considerable to large defect over the South-East Punjab, the United Provinces and South Bihar, due to the occurrence of a marked break during the first fortnight of the month The rainfall was, on the other hand, normal or in slight excess in Upper Burma, Bengal and Assam during this period.

(2) The rainfall was abundant in September over by far the greater part of the area and the excess was, relatively to the normal, largest in the United Provinces, Bihar, North Bengal, the Assam Valley and Chota Nagpur.

(3) The rainfall of the period varied somewhat irregularly from the normal but was generally in excess in Bihar, Chota Nagpur, Bengal, Assam and Upper Burma and was in moderate defect (7 to 22 per cent.) in the United Provinces.

(4) The Bay current was hence feeble in the first half of August. It was vigorous during the remainder of August and in September. It was, however, more unsteady than usual, cyclonic storms of slight to moderate intensity following in rapid succession.

The discussion of the meteorology of India in the preceding pages has shown clearly—

(1) That the conditions in India in the latter part of May and the commencement of June were such as are usually associated with an early and strong monsoon, more especially as judged by the data of the period 1875—1892, antecedent to the period of anomalous and remarkable conditions obtaining from 1892 to 1902.

(2) That there was no large or rapid change of meteorological conditions in India prior to the remarkable

change in the character of the Arabian Sea monsoon in the third week of August. The conditions then prevailing were such as invariably accompany a prolonged break in the rains, and are rather effects and not causes of the breaks. It hence follows that the causes, actions or conditions determining the weakness of the Arabian Sea current in the first half of the period and its strength during the second half are not to be sought for in India, or the Indian monsoon land area, but most probably in the remaining portion of the area of the complete monsoon air circulation, *viz.*, the south-east trades region of the Indian Ocean.

The pressure conditions in the Indian Ocean were very noteworthy in 1902. The following gives monthly variations for Mauritius of that year and of the years 1893 and 1894—years of abundant rain in India :—

Month.	Variation from normal of pressure at Mauritius.		
	1902.	1894.	1893.
	"	"	"
January	+·012	—·075	—·097
February	—·043	—·064	+·038
March	+·028	—·017	—·048
April	—·012	—·007	+·014
May	—·019	—·016	+·019
June	—·054	—·016	—·013
July	—·051	—·034	+·007
August	—·058	—·018	+·068
September	—·022	—·036	—·006
October	—·032	—·050	—·014
November	—·028	+·010	+·026
December	—·091	—·079	+·009

Similar data are given for the Seychelles and Zanzibar for the years 1902, 1894 and 1893 (the Seychelles observatory was opened in the year 1894) :—

Month.	Variation from normal of pressure.				
	Zanzibar.			Seychelles.	
	1902.	1894.	1893.	1902.	1894.
	"	"	"	"	"
January	+·011	+·007	—·034	+·003	No
February	+·068	+·006	+·020	+·053	record.
March	+·010	+·019	+·008	+·005	+·007
April	+·008	+·002	+·007	—·009	+·004
May	—·009	—·004	+·002	—·016	—·005
June	—·029	+·017	?	+·092	+·010
July	—·031	—·023	—·013	—·028	—·033
August	—·035	—·028	+·045	—·035	—·017
September	—·001	—·021	—·015	—·008	—·010
October	+·021	—·023	—·007	—·006	—·007
November	—·005	—·015	+·025	—·027	+·004
December	—·023	—·023	+·011	—·032	—·003

The preceding data show that in 1902 there was an almost continuous deficiency of pressure in the Indian Ocean (so far as it is represented by the stations of Mauritius, Zanzibar and the Seychelles) and that this deficiency was very marked during a portion of the monsoon period and was considerably greater at Mauritius than at the Seychelles. These pressure conditions would give feebler gradients than usual not only over the Indian Ocean but also over the Indian seas, more especially from June to August when they were most marked.

The following gives a fuller statement of the pressure and other conditions in the Indian Ocean and seas, being weekly data of pressure and wind at the Seychelles and Mauritius for the period from the middle of May to the middle of September 1902, including the usual period of the full extension of the monsoon currents over India :—

Week ending.	Seychelles (10 A.M.).			Mauritius (9 A.M.).		
	Pressure variation.	Actual wind direction.	Actual wind velocity per diem.	Pressure variation.	Actual wind direction.	Actual wind velocity per diem.
	"		Miles.	"		Miles.
17th May 1902	+·013	S E	240	+·048	E S E	264
24th " "	+·010	S E	192	—·035	Var.	216
31st " "	—·013	S E	240	—·070	E S E	216
7th June "	—·037	S E	168	—·028	S E	216
14th " "	—·031	S	240	—·105	S E	240
21st " "	+·003	E	240	—·048	E S E	216
28th " "	+·026	S E	216	—·019	Var.	240
5th July "	+·008	S E	192	+·021	E S E	336
12th " "	—·050	S S E	240	—·070	E S E	240
19th " "	—·055	S	240	—·079	E S E	264
26th " "	+·025	S E	264	—·039	Var.	168
2nd August "	—·033	S E	288	—·029	E S E	216
9th " "	—·023	S E	264	—·080	Var.	168
16th " "	—·071	S E	264	—·070	E S E	216
23rd " "	—·043	S E	240	—·048	E S E	216
30th " "	—·065	S E	240	—·045	E S E	288
6th Sept. "	—·017	S E	216	—·043	E S E	192
13th " "	+·032	S E	360	+·060	E S E	288

The preceding data show that the abnormal monsoon of 1902 accompanied abnormal conditions in the Indian Ocean unfavourable to a strong monsoon, although in India the conditions were favourable. This fact is almost sufficient without further confirmation to establish that the

abnormal features of the monsoon of 1902 were due primarily, if not entirely, to abnormal features in the Indian Ocean.

A striking confirmation of this hypothesis is furnished by the correspondence between the pressure gradients in the Indian Ocean and the distribution of the rainfall in India, as shown by the following table which gives variation data of the total gradient or difference of pressure between Mauritius and the Seychelles from the normal difference, week by week, from the first week in June to the second week of September.

Week ending	Variations of gradient between Mauritius and the Seychelles.	General character of weather in India.
7th June 1902	+·009	Monsoon set in on the west coast.
14th " "	—·074	First break from 17th to the 29th.
21st " "	—·051	
28th " "	—·045	
5th July "	+·013	Fairly general rain in Northern and Central India and the Deccan.
12th " "	—·029	
19th " "	—·024	Second break from the 21st to the end of July.
26th " "	—·064	
2nd August "	+·004	Third break from the 3rd August to the 18th August.
9th " "	—·057	
16th " "	+·001	
23rd " "	—·005	Abundant rain over nearly the whole country.
30th " "	+·020	
6th Sept. "	—·026	
13th " "	+·028	

The data of the preceding table indicate a very close correspondence and direct relation between the pressure gradients as given by the observations of Mauritius and the Seychelles (and hence almost certainly of the gradients and mean air motion of the south-east trades region over the Indian Ocean) and the strength of the monsoon and the amount of the rainfall in India from June to September 1902.

The longest and most general and severe break was from the 3rd to the 18th August. Lala Hem Raj in his account of the meteorology of the month (*vide* monthly weather review for August 1902) has called attention to the extraordinary and abnormal direction of the air movement in the western half of the equatorial belt as given by the data of the Seychelles observatory and of ships passing through the area during the period in question in the following remarks and data. The following gives his remarks:

"The following table shows the abnormal character of the air movement in the western half of the Equatorial belt and the west of the Arabian Sea in the first sixteen days of August 1902 during which period the monsoon currents were much below their normal intensity:—

Area.		Region comprised between. Latitude.	Longitude.	Actual mean wind direction during first sixteen days of August 1902.	Normal mean wind direction, August.
South-west and west of the Arabian Sea.		4° N to 20° N	48° E to 52° E	S 16° W	S 25° W
		4° N to 20° N	52° E to 56° E	S 26° W	S 39° W
		4° N to 20° N	56° E to 60° E	S 36° W	S 47° W
West Equatorial Belt.		12° S to 4° N	44° E to 48° E	S 39° E	S 19° E
		12° S to 4° N	48° E to 52° E	S 2° W	S 11° E
		12° S to 4° N	52° E to 56° E	S 29° E	S 22° E
		12° S to 4° N	56° E to 60° E	S 37° E	S 27° E
Central Equatorial Belt.	Northern Section.	4° S to 4° N	60° E to 64° E	N 68° E	S 19° E
		4° S to 4° N	64° E to 68° E	N 45° E	S 2° E
		4° S to 4° N	68° E to 72° E	N 56° E	S 49° E
		4° S to 4° N	72° E to 76° E	N 19° E	S 46° E
		4° S to 4° N	76° E to 80° E	W	S 32° W
	Southern Section.	12° S to 4° S	60° E to 64° E	S 45° E	S 51° E
		12° S to 4° S	64° E to 68° E	No data	S 48° E
		12° S to 4° S	68° E to 72° E	S 45° E	S 47° E
		12° S to 4° S	72° E to 76° E	No data	S 42° E
		12° S to 4° S	76° E to 80° E	No data	S 67° E

"These data are very interesting as showing that the winds were more easterly than usual in the west of the Equatorial belt and more southerly in the south-west and west of the Arabian Sea. The air movement was even more abnormal in the northern section of the Central Equatorial belt, where north-east, instead of the usual southerly to south-easterly, winds prevailed. On the other hand, in the southern section the air movement was, as far as can be ascertained, practically normal in direction.

"In this connection, it may be noted that during this period pressure was persistently in defect in South Arabia while it was in steady excess in Western India and the neighbouring sea area."

It is not necessary to give further data as the previous have been sufficient to establish fully that the variations in the strength of the Arabian sea current and of the rainfall in the field of extension of that current in India were primarily and directly related to variations in the strength of the whole air movement over the Indian Ocean and seas and more especially to the movement in the Indian Ocean.

It is an interesting problem for future enquiry as to the physical actions which give rise to these very large variations of the strength and character of the air movement over the south-east trades region and hence also of the south-west monsoon movement and rainfall. It must however lie over, in the absence of sufficient data, for future enquiry.

It is interesting to note that the variations of level of the Central African lake gauges and the flood gauges of the Nile in 1902 were similar to those of the

total rainfall to date in Western India due to the Arabian Sea monsoon current. The flood level in the Blue Nile (which brings down the Abyssinian rainfall) was about the same in 1902 as in 1900 from June to the middle of August and higher than that of 1901. A rapid increase occurred in the latter half of August and the first half of September and the flood level was considerably higher than that of the same periods of the two previous years, evidencing that Abyssinia, as Western India, received heavy and prolonged rainfall during that period.

The flood level of the White Nile was, on the other hand, lower from June to September 1902 than throughout the same period in the previous three years, almost certainly due to the scanty rainfall and the great weakness of the south-east trades in April, May and June, the period of the year when the Equatorial Lake Region receives its heaviest and most general rain.

The discussion has shown clearly that the Bay current, as measured by the total rainfall it gave to its field of extension, was of about normal strength whereas the Bombay current was considerably below, as estimated by the same method of measurement. During the past 27 years both currents were, as judged by this standard, either normal or stronger than usual in eight years, and feebler than usual in five years. Hence they varied in the same direction from the normal in thirteen out of twenty-seven years. The Bombay current was strong and the Bengal current weak in six years, and the Bombay current weak and the Bengal current strong in the remaining eight years. There is, it may be remarked, a very strong tendency for the same features to be repeated for several years in succession. For example, the Bombay current was strong and the Bengal current weak from 1882 to 1884 and in 1895 and 1896. The inverse relation was the case in 1879 and 1880, in 1885 and 1886 and again from 1898 to 1902 (with the exception of 1901). Both currents were very strong from 1892 to 1894.

The causes or indications for these relative variations have not yet been clearly determined. The Bombay current appears to be more largely and directly affected by variations in the south-east trades region than the Bay current. In the year 1902, the deficiency in the total rainfall due to the Arabian Sea was due solely to the weakness of the whole circulation of the south-east trades and south-west monsoon during more than half of its normal period. In some years of similar features, as in 1885, the delay and weakness of the monsoon was associated with heavy, prolonged and continuous snowfall during the cold and hot weather periods in the Western Himalayas. This was not the case in 1902 as the snowfall of the cold weather or winter of 1902 was one of the lightest on record. It is hence probable that actions and conditions in the Indian Ocean are primary, and conditions in India. such as snowfall in the Himalayas, subsidiary and are of small importance relatively to the former except when the conditions in the Indian Ocean and Seas are approximately normal.

There are undoubtedly considerable differences between the monsoon air movements in the Arabian sea and Bay of Bengal, more especially, in their dependence on the south-east trades system. That portion of the south-east trades which is continued across the Equator and passes into the Arabian sea is of much greater volume and is much less modified by the action of land masses than that which passes into the Bay of Bengal. The south-east trades air movement to the south of the Bay, and west of the East Indian Islands and Australia is, as shown by data collected from ships, more variable than in the Indian Ocean area further to the west. No investigation has as yet been made into the variations of the movement in the eastern half of the Equatorial belt from year to year and their relations to variations in the strength of the Bay of Bengal monsoon current.

It is noteworthy that amidst much diversity between the two monsoon currents some of the larger variations are common to both. Thus, intense cyclonic storms occurred in each of these seas in the first week of May 1902, probably due to some common phase of disturbance which passed northward giving rise to similar effects in each sea area. Again, the impulse giving rise to the commencement of the monsoon in both sea areas was practically simultaneous in the two areas, and due to the same general actions passing northwards from the equatorial belt. Similarly, the prolonged break of the 3rd to the 18th August was almost as marked in North-Eastern as in Western India, and terminated simultaneously in the two areas.

These general variations originate from similar general actions which hence determine similar broad features, but are subject to modification by subordinate causes or actions. The two currents may hence differ very considerably in relative strength not only throughout a whole monsoon period, but at different stages of the monsoon.

The meteorology of the retreating south-west monsoon period in 1902 presents several features of interest.

The monsoon currents withdrew unusually rapidly from North-Western India in the last week of September. A rapid rise of pressure occurred in the Persian region followed by the extension of light northerly dry winds and clear skies into North-Western India. Pressure was for some time afterwards considerably above the normal in the Persian region but fluctuated very rapidly during the second half of October, November and December.

North-Eastern India and Burma continued to receive occasional rain until the third week of October when pressure increased rapidly in that area, establishing moderate gradients for northerly winds in Bengal and Burma and the north of the Bay. Pressure was almost continously above the normal during the remainder of the period and dry clear weather obtained steadily over those areas until the end of the year.

Weather was less disturbed than usual in the Bay. A moderate storm formed in the south of the Bay in the last week of October much further south than usual due to the persistence of high pressure conditions in North-Eastern India and Upper Burma. It is noteworthy that it formed almost simultaneously with a much larger storm in the Arabian Sea. The Bay storm passed westwards to the Coromandel Coast along the track usually followed by storms in the latter half of November and in the first half of December. No storm appeared in the Bay in November, but the northerly winds extended further south and were stronger than usual and gave frequent showers in the Madras coast districts.

The only abnormal feature in the Bay in December was a very feeble disturbance in the extreme south-west of the Bay, which gave a moderate burst of rain to East Ceylon

and the Coromandel coast districts on the 15th and 16th. Northerly winds prevailed over the whole Bay area from the 18th to the end of the month and the final and complete withdrawal of the humid winds of the south-west monsoon hence occurred on the 17th December.

The most important feature of the period was the occurrence of a series of three cyclonic storms of moderate to considerable intensity in the Arabian Sea. These all formed over a large area of uniform pressure conditions and light winds and between areas of high pressure in the Persian region and in the extreme south-west of the Arabian Sea. There was, more especially in October, a broad belt of uniform pressure stretching between the west coast of India and the South-West Arabian and East African coasts. Each storm formed after a period of fine weather in a large region of uniform pressure, light winds, great humidity, and probably much evaporation from the sea surface, and immediately to the north of a region of moderate south-westerly to westerly humid winds. The conditions were hence similar to those under which cyclonic storms and cyclones are usually initiated in the Bay area in October. The storms in October advanced along tracks between west-north-west and north-west, and approximately along the line or axis of lowest pressure intermediate between the two areas of high pressure to the north and south. These storms gave widely spread moderate rain to the east of the disturbance and the Konkan and Malabar coast districts, and the western half of the Deccan and Mysore hence received unusually favourable rain in October.

These storms were evidently in part a product of the special pressure conditions of the period in the Arabian Sea, and in part of the continuance of stronger and more persistent south-west monsoon winds in the south of the Arabian Sea than usual throughout October.

J. E.

10th August, 1903.

APPENDIX.

The following is a brief statement of the hailstorms which occurred during the year 1902 in the North-West Frontier Province, the Punjab, United Provinces of Agra and Oudh, Central India, the Central Provinces and Burma, the reports of which were received too late to be given in the storm sections of the Monthly Weather Reviews of the year :—

Date. Day and month.	Area affected by storm.	Hour of occurrence.	Duration of storm.	Direction from which it came.	Size or weight of largest stones.	Character of storm.	Estimate of damage caused by storm.
	North-West Frontier Province.						
Mar. 18	Five villages of the Kohat district.	No information.	No information.	No information.	No information.	No information.	Damaged crops.
„ 18	Eight villages in the Charsadda tahsil of the Peshawar district.						Damaged crops severely in five villages, necessitating remission of revenue to the extent of ₹889.
„ 27	Seven villages in the Nowshera tahsil of the Peshawar district.						Damaged crops severely, necessitating remission of revenue to the extent of ₹801.
„ 27	Seven villages of the Kohat tahsil.						Damaged crops.
Apr. 20	Four villages of the Peshawar district.						Damaged crops severely, necessitating remission of revenue to the extent of ₹1,686.
„ 20	About 14 square miles in the Mansahra tahsil of the Hazara district.						Damaged crops severely.
May 11	Two villages of the Kohat district.						Damaged crops.
Aug. 12	About 23 square miles in the Mansahra tahsil of the Hazara district.						Damaged crops, necessitating remission of revenue amounting to ₹49.
Sept. 22	Village Ghurozai in the Teri tahsil of the Kohat district.						Damaged crops, necessitating remission of revenue to the extent of ₹88.
	Punjab.						
Mar. 18	Seventy-six villages of the Gujarat district.			NW			Damaged crops, severely in 46 villages, necessitating a remission of revenue to the extent of ₹5,548.
Sept. 16	Five villages in the Pind Dadan Khan tahsil of the Jhelum district.						Damaged crops severely.
Oct. 16	About 25 square miles in the Pindigheb tahsil of the Rawalpindi district.						Damaged crops, necessitating remission of revenue amounting to ₹44.
„ 17	About 54 square miles in the Jhang district.			S	About a chhattak in weight.		Damaged crops, necessitating remission of revenue to the extent of ₹84-5-4.
	United Provinces of Agra and Oudh.						
Feb. 20 and 21	About 70 square miles in the Bulandshahr district.						Damaged crops to the extent of 4 to 12 annas in the rupee.
Apr. 24	Shahjahanpur and Tilhar tahsils of the Shahjahanpur district.		About half an hour.	W	2 oz.		Damaged crops slightly.
Oct. 19	Baheri tahsil of the Bareilly district.					Moderate	
„ 20	Two Pargannas of the Gonda district.		20 minutes.	NW	1½ inches in diameter.		Damaged crops.
„ 20	Sixteen villages in the Sandila tahsil of the Hardoi district.		10 minutes.		Small		Damaged crops slightly.
	Central India.						
Feb. 19	Twenty-five villages in the Chhatarpur State.	4 P.M.					Damaged crops.
	Central Provinces.						
Jan. 11	Five villages in the Umrer tahsil of the Nagpur district.	8 P.M.	One hour.	N	About double the size of an ordinary egg.	Moderately severe.	Damaged crops to the extent of 12 annas in the rupee.
	Burma.						
Oct. 28	About 30 square miles in the Sagaing district.			NW	Gooseberry.		No information.

TABLE I.—Abstract of Observations taken at 8 A.M. at 225 Stations in India, Burma, etc., in the year 1902.

Table

Abstract of observations taken at 8 A.M

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 year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of Air. Mean of 8 A.M. of year.	Mean maximum of year.	Variation from normal of year.	Mean minimum of year.	Variation from normal of year.	Mean daily temperature of year.	Variation from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range during year.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma Coast and Bay Islands				**+ ·022**							**87·9**	**+ 0·6**	**73·8**	**+ 0·7**	**80·9**	**+ 0·6**	**14·1**			**37·9**	**22·6**
1	Tenasserim and Bay Islands.	Car Nicobar *	25	29·895		29·847	30·043	29·770	·273	·129	79·6	86·2		76·6		81·4		9·6	92·3	66·4	25·9	16·5
		Port Blair	61	29·872	+ ·024	29·864	30·074	29·668	·406	·143	80·8	87·5		77·6		82·6		9·9	96·4	69·4	27·0	17·5
		Mergui	96	29·854	+ ·021	29·881	30·087	29·659	·428	·146	78·1	87·9	+ 0·4	73·5	+ 2·3?	80·7	+ 1·4?	14·4	95·6	60·3	35·3	22·1
		Tavoy	26	29·930	+ ·007†?	29·887	30·162	29·733	·429	·157	76·3	88·2	+ 0·3	72·0	+ 0·9	80·1	+ 0·6	16·2	97·7	55·0	42·7	25·0
		Moulmein	94	29·841	+ ·017?	29·873	30·111	29·585	·526	·175	77·7	89·3	+ 1·1*	73·2	+ 0·9	81·3	+ 1·0*	16·1	100·4	60·9	39·5	24·9
2	Lower Burma	Rangoon	57	29·851†	?	29·829†	30·061	29·493	·568	·196†	77·1	89·2	− 0·4?	73·4	+ 0·5*	81·3	+ 0·1?	15·8	102·6	61·3	41·3	24·2
		Bassein	27	29·895	+ ·021*	29·858	30·163	29·497	·666	·189	77·0	88·7	+ 0·7	73·6	+ 1·6	81·2	+ 1·2	15·1	100·7	59·8	40·9	23·4
		Diamond Island	41	29·876	?	29·853	30·132	29·510	·622	·185	80·5	86·9	?	77·0	+ 1·7	82·0	?	9·9	98·4	70·2	28·2	16·9
5	Arakan	Akyab	20	29·884	?	29·847	30·175	29·464	·711	·215	75·2	86·3	+ 0·1	71·6	− 0·7*	79·0	− 0·3*	14·7	95·9	50·6	45·3	24·2
3	Central Burma	Toungoo	183	29·740	+ ·023	29·867	30·020	29·423	·597	·186	76·7	89·2	?	69·5	?	79·4	?	19·7	104·1	51·6	52·5	31·4
	II.—Burma Inland				**+ ·026**							**90·3**	**− 0·2**	**68·9**	**− 0·3**	**79·6**	**− 0·2**	**21·4**			**58·3**	**32·7**
3	Central Burma	Thayetmyo	130	29·793	+ ·010?†	29·865	30·082	29·453	·629	·186	77·3	92·3	+ 0·5	69·4*	+ 0·4*	81·0*	+ 0·5*	23·0*	108·7	48·5	60·2	33·6*
4	Upper Burma	Minbu	165	29·749	+ ·024	29·859	30·045	29·398	·647	·199	76·7	91·8	− 0·4?	71·6	+ 0·5	81·7	+ 0·1?	20·2	109·6	51·5	58·1	31·5
		Yamethin	657	29·253	+ ·022	29·808	29·541	28·928	·613	·191	75·2	92·4	+ 0·2	69·6	+ 0·1	81·0	+ 0·2	22·8	109·1	50·7	58·4	34·2
		Mandalay	250	29·667	+ ·029*	29·872	29·960	29·336	·624	·202	77·4	92·9	+ 0·4*	71·0	− 0·3†	82·0	+ 0·1†	21·9	111·1?	52·8	58·3	33·2
		Kindat *	377	29·526	?	29·866	29·870	29·138	·732	·241	72·0	87·1	− 0·5	67·5	− 0·6	77·3	− 0·6	19·6	103·3	45·3	58·0	30·6
		Bhamo	381	29·528	+ ·029	29·874	29·832	29·178	·654	·224	69·0	85·0	− 1·7†	64·0	− 1·0†	74·5	− 1·4†	21·0	99·0	42·2	56·8	32·9
4(a)	Burma Hill Stations.	Maymyo†		26·422			26·671	26·178	·493	·203	65·0	76·8		56·9		66·9		19·9	91·0	35·8	55·2	29·5
		Lashio									66·1	82·8	+ 0·3	59·9	− 0·1	71·4	+ 0·1	2 2·5	97·5	41·1	56·4	36·4
	III.—Assam				**+ ·021**							**82·3**	**− 1·1**	**65·8**	**− 1·1**	**74·1**	**− 1·1**	**16·4**			**50·7**	**28·0**
7	Surma	Silchar	104	29·811	+ ·024	29·869	30·151	29·335	·816	·242	72·0	86·6	+ 0·4?	66·8	− 0·6	76·7	− 0·1?	19·8	98·6	46·4	52·2	31·7
9	Brahmaputra	Sibsagar	333	29·585	+ ·018	29·885	29·539	29·130	·809	·264	68·1	80·4	− 1·5	65·0	− 0·8	72·7	− 1·2	15·4	94·2	42·9	51·3	27·1
		Dhubri	115	29·773?	+ ·021?	29·847?	30·109	29·298	·811	·276	70·8	82·2	− 0·6	66·9	− 1·3	74·6	− 1·0	15·3	93.2	45·8	47·4	26·4
		Tezpur	252	29·649		29·870	29·975	29·202	·773	·261	69·2	81·5		66·3		73·9		15·2	95·1	46·5	48·6	25·6
		Dibrugarh	353	29·567		29·890	29·886	29·129	·757	·243	68·4	80·6		64·1		72·4		16·5	96·2	42·4	53·8	29·4
	IV.—Bengal and Orissa				**+ ·021**							**86·6**	**− 0·1**	**·8**	**− 0·3**	**77·7**	**− 0·2**	**17·8**			**54·2**	**29·3**
6	East Bengal	Chittagong	87	29·807	+ ·015?	29·844	30·127	29·300	·827	·234	74·0	85·3	+ 0·5	68·5	− 1·0	76·9	− 0·3	16·8	95·5	48·6	46·9	26·3
		Noakhali	43	29·842		29·832	30·186	29·339	·847	·238	75·1	84·8		68·9		76·9		15·9	94·7	45·1	49·6	27·2
		Comilla	36	29·851		29·836	30·187	29·371	·816	·240	73·2	86·4		68·1		77·3		18·2	98·8	45·6	53·2	29·4
		Sirajganj	49	29·826		29·826	30·150	29·344	·806	·261	72·2	85·0		68·4		76·7		16·6	100·5	46·3	54·2	27·6
		Narayanganj	26	29·861	+ ·023†	29·835	30·203	29·359	·844	·256	74·6	85·5	− 1·1*	70·5	− 0·1	78·0	− 0·6*	15·0	96·6	50·2	46·4	25·2
		Barisal	13	29·853?	?	29·812?	30·191	29·333	·858	·243	75·8	85·7	− 0·3	69·8	− 0·6	77·8	− 0·5	15·9		47·7	49·1	26·9
		Mymensingh	59	29·820	+ ·011?	29·832	30·146	29·350	·796	·251	72·7	84·0	− 0·3	68·5	− 0·5†	76·3	− 0·4†	15·5	97·5	47·0	50·5	26·4
10	Deltaic Bengal	Faridpur	46	29·839		29·833	30·172	29·338	·834	·255	74·0	85·7		68·4		77·0		17·3	97·7	45·0	52·7	27·8
		Jessore	33	29·840	+ ·019	29·821	30·190	29·294	·896	·263	74·9	87·0	− 0·8	69·2	− 0·7	78·1	− 0·8	17·8	99·5	43·1	56·4	30·0
		Calcutta	21	29·851	+ ·021	29·819	30·195	29·262	·933	·264	75·6	87·5	+ 0·9	70·5	− 0·1	79·0	+ 0·4	17·0	99·7	48·6	51·1	28·8
		Saugor Island	25	29·842	+ ·018	29·812	30·180	29·263	·917	·264	77·9	86·5	+ 1·0	74·0	+ 0·3	80·3	+ 0·7	12·5	94·9	51·5	43·4	23·4
		Krishnagar	47	29·832		29·828	30·168	29·254	·914	·266	75·0	88·3		68·3		78·3		20·0	103·0	43·8	59·2	31·9
		Midnapore	149	29·713		29·811	30·051	29·102	·949	·264	75·9	89·6		70·8		80·2		18·9	107·9	49·6	58·3	31·6
11	Central Bengal	Bankura	258	29·541?		29·796?	29·880	28·920	·960	·266	75·4	89·7		70·3		80·0		19·5	106·3	48·0	58·3	32·7
		Raniganj	334	29·529		29·819	29·880	28·928	·952	·264	73·4	89·6		69·1		79·4		20·5	107·3	47·1	60·2	33·6

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

I.

at 225 stations in India, Burma, etc., in the year 1902.

Wind direction. Number of winds from: Calm.	N	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity of year.	Mean vapour tension of year.	Mean cloud amount of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Variation.	Rainfall of year.	Normal rainfall of year.	Variation from normal.	Heaviest rainfall during year.	Station.	Meteorological Province or District.	Number of district.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
																			132·41	146·95	—9·34		I.—Burma Coast and Bay Islands.		
50	22	49	21	14	9	43	21	3	3·9	3·9			87	·874	8·4	104			90·76			3·36	Car Nicobar ‡	Tenasserim and Bay Islands.	1
11	24	54	16	36	17	64	89	54	7·6		7·4	+3	86	·905	5·4	162			138·60	117·63	+20·97	5·16	Port Blair.		
273	28	5		3	23	16	3	14	2·1	1·9	1·8	+6	88	·832	4·6	144	154·20	−10·20	137·57	168·37	−30·80	3·93	Mergui.		
349	3	2			1	8		2	1·4				90	·831	3·4	140	147·30	− 7·30	193·94	209·28	−15·34	12·80	Tavoy.		
85	19	54	12	30	43	88	15	17	2·5	2·8	2·8	0	85	·812	4·5	126	140·60	−14·60	167·79	183·92	−16·13	7·60	Moulmein §		
									6·1	5·1	4·4	+16	86	·805	4·7								Rangoon	Lower Burma.	2
83	15	29	20	48	18	36	12	104	4·6		3·8	+21	88	·830	4·3	122	128·50	− 6·50	109.15	112·00	− 2·85	5·88	Bassein.		
19	50	78	26	11	11	69	47	54	9·9	9·9	7·1	+39	79	·834	4·7	113	120·44	− 7·44	100·56	116·08	−15·52	5·34	Diamond Island.		
	144	88	17	53	44	11		8	3·0	2·9	3·7	−22	90	·812	4·2	121	118·70	+ 2·30	188·58	189·20	− 0·62	10·05	Akyab	Arakan.	5
48	25	17	6	143	34	19	8	65	4·9	4·8	3·0	+60	84	·789	5·0	109	113·60	− 4·60	64·70	79·11	−14·41	3·55	Toungoo	Central Burma.	3
																			43·14	46·95	−3·81		II.—Burma Inland.		
1	39	48	26	54	117	26	31	21	5·1		5·1	0	75	·720	4·6	74	72·50	+ 1·50	35·11	36·72	− 1·61	2·37	Thayetmyo §	Central Burma.	3
45	9	2	4	152	16	4	11	121	6·4	7·6			73	·696	3·6	51	50·50	+ 0·50	23·33	31·86	− 8·53	1·70	Minbu ‖	Upper Burma.	4
105	50			115	72	1		22	4·3	4·5			78	·698	4·1	65	61·20	+ 3·80	34·90	37·56	− 2·66	2·05	Yamethin.		
5	78	43	7	29	140	43	1	18	5·7	5·7			74	·709	2·8	46	47·50	− 1·50	28·51	32·36	− 3·85	2·08	Mandalay. ‖		
268	22	14	4	6	7	2	2	9	0·9	0·9			90	·735	5·3	91	89·10	+ 1·90	68·93	69·84	− 0·91	3·75	Kindat.		
160	21	68	23	12	6	22	17	34	2·1	2·4			90	·669	4·6	79	99·80	−20·80	63·06	73·38	− 5·32	4·66	Bhamo §		
207		18	1	7	1	55	6	1	3·2				85	·541	5·3	79	85·50	− 6·50	57·09	55·81	+ 1·28	3·15	Maymyo ¶	Burma Hill Stations.	4(a)
	50	93	34	38	50	55	22	23	4·3				84	·554	6·7	100			57·69	61·28	− 3·59	2·51	Lashio.		
																			107·32	100·20	+7·12		III.—Assam.		
320	1	14	26	3		1			1·3	2·2	2·7	−19	88	·723	5·5	140	136·80	+ 3·20	119·07	124·87	− 5·80	4·30	Silchar	Surma.	7
163	30	118	4	7	2	32		9	2·1	1·9	2·4	−21	97	·696	7·9	132	125·00	+ 7·00	96·32	96·21	+ 0·11	7·18	Sibsagar	Brahmaputra.	9
25	13	110	154	9	18	26	7	3	4·3	5·1	4·7	+ 9	89	·697	4·5	109	92·50	+16·50	120·35	93·28	+27·07	7·34	Dhubri.		
53	8	109	143	16	9	16	9	2	3·4	3·6			90	·671	5·2	105	103·90	+ 1·10	73·32	71·66	+ 2·16	5·00	Tezpur.		
	67	113	54	37	14	15	9	56	1·9	1·8			90	·644	4·0	134	131·80	+ 2·20	127·05	114·99	+12·06	6·86	Debrugarh.		
																			79·94	71·86	+8·08		IV.—Bengal and Orissa.		
	44	126	37	99	46	4	3	6	5·4	5·3	5·1	+4	86	·744	4·4	102	96·42	+ 5·58	121·32	96·52	+24·80	8·17	Chittagong	East Bengal.	6
	60	49	58	68	60	30	17	23	3·2*	3·1*			87	·778	3·9	111	109·36	+ 1·64	150·30	113·68	+36·62	6·65	Noakhali.		
133	15	3	26	43	139	2	2	2	3·3				88	·744	3·6	92	100·25	− 8·25	95·65	90·24	+ 5·41	7·02	Comilla.		
218	10	14	43	26	37	7	3	7	1·8	1·8			90	·847	4·4	96	78·66	+17·34	79·65	61·38	+18·27	5·08	Sirajganj.		
79	19	20	39	69	58	32	12	27	5·0		4·5	+11	88	·782	6·5	98	94·08	+ 3·92	86·61	69·60	+17·01	5·21	Narayanganj.		
72	24	27	13	69	79	27	15	29	3·1				87	·803	4·3	117	97·90	+19·10	120·71	77·60	+43·11	5·86	Barisal **		
194	2	5	65	76	16	3	2	2	2·6	2·4			88	·732	?	112	104·22	+ 7·78	109·29	87·55	+21·74	7·96	Mymensingh.		
69	38	12	30	77	68	28	12	31	3·8*	3·2*			88	·772	3·1	105	89·40	+15·60	84·18	68·56	+15·62	4·02	Faridpur	Deltaic Bengal.	10
227	15	6	15	61	27	6	3	5	1·5		3·2	−53	85	·777	4·6	92	88·45	+ 3·55	63·38	64·02	− 0·67	2·58	Jessore.		
75	36	24	20	36	74	56	11	33	4·5		4·8	− 6	84	·778	5·0	81	85·54	− 4·54	62·28	59·55	+ 2·73	3·37	Calcutta.		
15	42	62	16	22	103	65	17	23	12·3		10·7	+20	85	·840	5·3	74	81·96	− 7·96	64·09	72·23	− 8·14	7·38	Saugor Island.		
26	28	20	37	64	80	29	38	43	3·4				83	·758	4·2	71	74·20	− 3·20	44·10	55·12	−11·02	2·82	Krishnagar.		
59	86	26	1	28	118	22	6	19	3·5	3·1			78	·742	2·6	80	78·22	+ 1·78	53·64	61·26	− 7·62	4·15	Midnapore.		
215	4	11	23	43	10	16	38	5	2·8	3·2			74	·695	3·8	61	77·37	−16·37	45·13	56·43	−11·30	4·53	Bankura	Central Bengal.	11
255	10	17	22	15	9	6	6	25	1·3				77	·687	3·2	76	72·95	+ 3·05	53·04	56·13	− 3·09	3·20	Raniganj.		

‡ Wind observations of 232 days. § Wind observations of 363 days. ‖ Wind observations of 364 days. ¶ Wind observations of 296 days.
** Wind observation of 355 days.

Table

Abstract of observations taken at 8 A.M

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 year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 A.M. of year.	Mean maximum of year.	Variation from normal of year.	Mean minimum of year.	Variation from normal of year.	Mean daily temperature of year.	Variation from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
11	Central Bengal —concld.	Burdwan	99	29·768	+·016	29·815	30·109	29·168	·941	·269	74·9	89·0	−0·1	70·3	−0·3	79·7	−0·2	18·7	106·4	46·8	59·6	31·7
		Naya Dumka	489	29·354*		29·810*	29·710	28·804	·906	·259*	74·0	87·9		68·1		78·0		19·8	108·4	44·0	64·4	33·7
		Berhampore	67	29·805	+·020	29·821	30·151	29·255	·896	·264	74·3	88·2	+0·4	69·6	0	78·9	+0·2	18·6	104·3	46·6	57·7	30·1
		Rampur Boalia	70	29·806		29·826	30·154	29·275	·879	·263	74·0	86·1		68·7		77·4		17·3	101·3	44·3	57·0	29·8
		Malda	72	?		?	30·149	29·281	·868	·264	73·4	86·6		67·8		77·2		18·8	104·1	43·0	61·1	31·8
		Bogra	61	29·803?	+·025?*	29·818?	30·125	29·323	·802	·254	71·7	85·8	−0·6	67·7	−0·5	76·7	−0·6	18·1	101·3	46·0	55·3	29·2
12	North Bengal	Dinajpur	123	29·741	?	29·822	30·072	29·248	·824	·264	70·6	85·3	−1·1*	66·1	−0·8*	75·7	−1·0*	19·2	97·3	40·5	56·8	31·0
		Rangpur	123	29·770		29·851	30·061	29·291	·770	·268	71·7	84·5		65·5*		74·8*		17·7*	95·4	41·8	53·6	30·9
		Jalpaiguri	284	29·604	+·026	29·854	29·936	29·128	·808	·279	70·1	83·4	−0·4	65·9	0	74·7	−0·2	17·5	95·4	45·1	50·3	29·3
		Cooch Behar	156	29·739		29·855	30·080	29·251	·829	·277	70·6	83·4		66·7		75·1		16·7	95·9	46·3	49·6	27·9
17	North Bihar	Purnea	125	29·748	+·025	29·831	30·115	29·267	·848	·270	70·5	86·4	−0·4	66·1	−0·3	70·2	−0·3	20·3	100·8	38·5	62·3	33·2
14	Orissa	Balasore	18	29·827?	+·019?	29·820?	30·174	29·233	·941	·263	75·9	88·9	+0·3	70·5	0	79·7	+0·2	18·5	104·5	47·4	57·1	31·3
		False Point	21	29·856	+·021	29·819	30·197	29·340	·857	·254	77·7	86·0	+0·1	72·0	−0·1	79·0	0	14·0	96·5	47·4	49·1	25·9
		Cuttack	80	29·792	+·021	29·818	30·131	29·292	·839	·253	76·5	92·0	+0·6	72·7	+0·1	82·3	+0·4	19·3	110·5	51·6	58·9	32·1
		Puri	24	29·855		29·818	30·193	29·359	·834	·247	77·9	86·0		74·4		80·2		11·7	98·7	54·6	44·1	21·7
	V.—Gangetic Plain and Chota Nagpur.				+·013							89·3	+1·0	67·2	+0·4	73·2	+0·7	22·0			68·7	36·6
15	Chota Nagpur	Hazaribagh	2,007	27·837	+·013	29·814	28·143	27·324	·819	·241	72·6*	86·2*	+1·5*	66·7*	+1·2*	76·5*	+1·4*	19·6*	106·1	44·0	62·1	33·5*
		Ranchi	2,128	27·719	+·012	29·814	28·016	27·192	·824	·238	71·9	85·8	+1·2	66·5	+1·3	76·2	+1·3	19·3	105·7	44·0	61·7	32·5
		Daltonganj	730?	29·127		29·829	29·488	28·603	·885	·259	71·2*	90·2		65·7*		78·0*		24·5*	113·1	36·2	76·9	40·1*
		Purulia		29·027		29·801	29·366	28·405	·961	·258	74·9	90·1		68·4		79·3		21·7	109·7	45·2	64·5	45·6
		Chaibassa	760	29·089	+·020?	29·812	29·426	28·481	·945	·257	73·9	90·4	0	69·4	+0·5	80·0	+0·3	21·0	110·1	46·4	63·7	35·1
16	South Bihar	Gaya	375	29·470	+·008	29·807	29·834	28·961	·873	·258	75·0	91·1	+1·1	69·3	+0·5	80·2	+0·8	21·8	111·3	44·0	67·3	36·1
		Dehri	351	29·492		29·805	29·864	29·014	·850	·255	75·6	90·7		70·3		80·5		20·4	112·5	46·3	66·2	35·6
		Patna	183	29·670	+·012*	29·809	30·039	29·191	·848	·255	75·0	88·7	+1·0	68·9	+0·2†	78·8	+0·3†	19·8	110·0	43·3	66·7	33·4
		Arrah	190	29·668		29·815	30·028	29·191	·837	·251	73·7	89·5		67·5†		77·8†		20·5†	109·9	42·0	67·9	34·8†
		Buxar	239	29·609		29·808	29·999	29·107	·892	·260	74·8	89·8		68·4		79·1		21·5	109·0	42·3	66·7	36·3
17	North Bihar	Bhagalpur	160	29·703		29·819	30·086	29·197	·889	·269	74·6	87·9		68·0		78·0		20·0	104·3	41·6	62·7	33·4
		Darbhanga	166	29·689	+·011	29·813	30·059	29·227	·832	·264	72·1	86·2	+0·3	68·3	−0·2	77·3	+0·1	17·9	102·8	43·8	59·0	29·8
		Muzaffarpur	178	29·688?		29·825?	30·051	29·208	·843	·262	72·6	86·6		66·7		76·7		19·9	105·7	40·1	65·6	33·3
		Motihari	224	29·640?		29·827?	30·018	29·168	·850	·276	72·4	86·9		64·8		75·9		22·2	102·9	37·0	65·9	35·3
		Chapra	181	29·667		29·806	30·036	29·191	·845	·254	73·1	89·1		67·6		78·5		21·8	109·5	42·7	66·8	35·0
18	United Provinces (East).	Benares	267	29·574	+·010	29·802	29·952	29·053	·899	·256	74·2	91·3	+1·5*	66·4	−0·4?	78·9	+0·6?	24·9	111·8	38·0	73·8	40·0
		Allahabad	309	29·539	+·017	29·809	29·907	29·022	·885	·257	74·8	91·5	+1·3	66·9	+0·1	79·2	+0·7	24·6	113·7	36·4	77·3	40·5
23	United Provinces (East Submontane).	Gorakhpur	257	29·592	?	29·812	29·953	29·147	·806	·259	72·1	88·5	+0·5?	66·8	−0·6?	77·7	−0·1?	21·7	109·2	42·1	67·1	35·1
19	South Oudh	Lucknow	368	29·467	+·011	29·803	29·842	29·009	·833	·263	72·8	90·9	+1·1	65·5	0	78·2	+0·6	25·4	113·8	35·1	78·7	41·0
20	North Oudh	Bahraich	401	29·432	+·017	29·803	29·804	28·981	·823	·261	73·0	89·4	+1·2	64·8*	+0·3*	76·5*	+0·6*	23·4*	111·7	39·1	72·6	37·3*
21	United Provinces (Central).	Cawnpore	416	29·422	+·018	29·802	29·796	28·944	·852	·257	73·5	91·4	+1·4	66·1	−0·3?	78·8	+0·6?	25·3	112·6	35·0	77·6	40·7
		Mainpuri	516	29·317	+·017	29·804	29·690	28·840	·850	·262	73·2	91·5	+1·7	65·6	0	78·6	+0·9	25·9	113·7	34·0	79·7	41·1
	VI.—Upper Sub-Himalayas				+·013							88·4	+1·1	63·5	+0·4	76·0	+0·8	25·1			78·4	40·6
24	United Provinces (West Submontane).	Bareilly	568	29·260	+·016	29·808	29·649	28·832	·817	·267	70·5	88·2	+0·6	65·1	+0·4	76·7	+0·5	23·1	109·5	37·7	71·8	37·1
		Dehra Dun	2,233	27·606	+·010	29·831	27·926	27·221	·715	·250	66·0	82·3	+1·1	60·9	0	71·6	+0·6	21·4	102·0	37·5	64·5	35·0
		Roorkee	899	28·929	+·017	29·820	29·303	28·495	·808	·267	67·8	87·3	+0·2	61·6	−1·0	74·5	−0·4	25·7	108·7	30·7	78·0	40·1

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

I—*contd.*

at 225 stations in India, Burma, etc., in the year 1902—contd.

Wind direction. Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry, 8 A.M. Mean humidity of year.	Mean vapour tension of year.	Mean cloud amount of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Variation.	Rainfall of year.	Normal rainfall of year.	Variation from normal.	Heaviest rainfall during year.	Station.	Meteorological Province or District.	Number of district.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
131	30	23	20	25	34	60	18	24	2·9	2·9	3·3	−12	81	·744	4·6	61	77·88	−16·28	46·07	57·06	−10·99	2·47	Burdwan.	Central Bengal —*concld.*	11
154	11	15	46	48	40	16	9	26	2·9	3·2			85	·673	4·4	71	79·60	− 8·60	56·31	58·65	− 2·34	6·64	Naya Dumka.		
105	20	9	46	26	71	43	17	27	2·6	2·7	3·5	−23	83	·745	4·8	75	77·22	− 2·22	65·77	55·13	+10·64	4·64	Berhampore§.		
248	2	11	7	28	31	25	12	1	1·7	1·7			83	·744	2·9	85	75·14	+ 9·86	78·16	57·62	+20·54	5·00	Rampur Boalia.		
8	29	33	82	58	42	31	29	53	1·9	1·7			82	·716	3·2	73	69·20	+ 3·80	49·35	54·18	− 4·83	2·60	Malda.		
138	83	10	84	9	30	6	5						86	·709	3·9	101	81·84	+19·16	80·29	67·14	+13·15	7·30	Bogra.		
	32	95	86	39	32	27	28	26	3·6	3·4			86	·686	4·9	86	77·09	+ 8·91	81·11	70·99	+10·12	6·55	Dinajpur	North Bengal.	12
104	1	74	124	16	28	13	3	2	2·6	2·8			88	·715	4·1	108	81·61	+26·39	97·26	84·02	+13·24	5·10	Rangpur.		
3	88	111	70	33	11	4	7	38	1·4	1·8			88	·676	2·8	116	99·26	+16·74	153·09	123·20	+29·89	6·61	Jalpaiguri.		
171	4	36	117	27	5	2	3		1·6	1·6			88	·690	4·7	111	100·59	+10·41	177·86	128·63	+49·23	9·03	Cooch Behar.		
114	3	90	39	58	3	25	10	23	3·6	3·2	2·4	+33	85	·678	2·9	81	70·51	+10·49	53·32	64·88	−11·56	3·36	Purnea	North Bihar.	17
102	46	6	3		51	102	10	45	3·8				77	·723	3·2	69	81·12	−12·12	55·61	64·68	− 9·07	4·25	Balasore	Orissa.	14
29	55	5	4	11	38	97	63	63	9·0	8·6	9·1	− 5	85	·826	5·4	67	73·74	− 6·74	50·13	65·69	−15·56	4·26	False Point.		
186	5	5	15	5	32	76	37	4	2·4		3·4	−29	81	·763	4·2	69	75·61	− 6·61	64·95	59·70	+ 5·25	7·51	Cuttack.		
103	75	17		2	10	129	10	17	11·1	10·5			85	·838	3·5	57	58·12	− 1·22	55·62	54·45	+ 1·17	4·94	Puri‡.		
																			41·12	45·97	−4·85		**V.—Gangetic Plain and Chota Nagpur.**		
56	20	5	10	18	59	68	73	56	7·5	6·7	6·8	− 1	60	·509	4·5	71	75·70	− 4·70	42·18	53·40	−11·22	2·41	Hazaribagh	Chota Nagpur.	15
68	18	12	13	17	52	62	36	86	5·1	6·0			65	·537	4·0	71	81·49	−10·49	48·15	55·79	− 7·64	2·95	Ranchi§		
301	6	5	21	15		13	4		2·4	2·9			73*	·592*	2·0	44	62·52	−18·52	31·48	44·53	−13·05	3·93	Daltonganj.		
243	2	10	12	8	6	5	43	36	1·3	1·5			68	·631	3·0	68	75·91	− 7·91	49·03	52·71	− 3·68	7·15	Purulia		
202	2	10	7	4	11	61	62	6	1·4	1·3			76	·674	2·7	70	75·30	− 5·30	51·19	51·29	− 0·10	4·35	Chaibassa.		
88	9	54	25	30	43	66	41	9	4·2	3·8	2·6	+46	73	·681	3·3	59	57·38	+ 1·62	39·87	47·00	− 7·13	2·96	Gaya	South Bihar.	16
35	7	10	58	21	88	112	31	3	5·7	5·1			69	·605	3·8	53	55·34	− 2·34	43·03	43·20	− 0·17	3·55	Dehri.		
21	3	47	94	45	13	62	50	30	4·8	6·5	3·0	+83	74	·681	3·4	52	55·35	− 3·35	45·50	48·04	− 2·54	7·93	Patna.		
162	13	36	12	19	8	19	39	57	2·5	2·6			73	·649	2·0	58	55·93	+ 2·07	38·62	46·04	− 7·42	2·54	Arrah.		
17	3	7	127	17	15	30	133	12	8·0*	7·3*			67	·614	3·2	48	54·74	− 6·74	37·33	41·55	− 4·22	2·89	Buxar‖		
125	8	37	69	53	16	25	26	6	3·5	3·3			74	·674	3·5	57	60·81	− 3·81	41·92	49·36	− 7·44	2·49	Bhagalpur.	North Bihar.	17
153	5	8	88	64	2	12	23	10	2·6		3·6	−28	83	·694	3·2	62	58·35	+ 3·65	54·13	51·07	+ 3·06	5·46	Darbhanga.		
148	1	25	83	59	1	13	23	12	3·8				82	·697	1·9	57	55·97	+ 1·03	45·51	45·63	− 0·12	4·17	Muzaffarpur.		
9	10	71	155	31	12	25	29	23	4·4	4·2			82	·688	2·3	62	55·74	+ 6·26	70·88	51·66	+19·22	5·20	Motihari.		
119	4	19	109	26	12	39	30	7	3·0	2·7			76	·658	3·3	48	52·29	− 4·29	30·98	40·89	− 9·91	2·00	Chapra.		
159	3	21	48	23	5	68	28	10	2·5	2·8	3·9	−28	71	·639	3·2	40	50·90	−10·90	28·31	40·99	−12·68	2·82	Benares	United Provinces (East).	18
69	11	33	60	16	23	32	79	42	4·9	5·6	4·6	+22	67	·559	3·4	48	45·30	+ 2·70	39·73	40·73	− 1·00	4·76	Allahabad.		
101	38	90	39	13	14	16	25	29	1·9		2·5	−24	79	·661	4·2	58	54·10	+ 3·90	44·74	52·01	− 7·27	3·74	Gorakhpur	United Provinces (East Submontane).	23
130	14	19	66	19	15	14	74	14	2·2	2·4	3·1	−23	67	·578	2·5	38	51·00	−13·00	32·45	38·89	− 6·44	4·15	Lucknow	South Oudh.	19
122	4	18	61	76	5	11	20	48	4·9	4·6			73	·638	2·9	41	50·40	− 9·40	44·33	48·91	− 4·58	5·68	Bahraich	North Oudh.	20
112	10	27	32	31	14	56	62	21	3·6				64	·563	3·0	39	43·00	− 4·00	26·55	35·94	− 9·39	5·96	Cawnpore	United Provinces (Central).	21
183	11	1	45	5	15	3	93	9	1·4	1·4			58	·509	4·1	28	38·10	−10·10	18·70	31·76	−13·06	3·95	Mainpuri.		
																			27·75	36·57	−7·80		**VI.—Upper Sub-Himalayas.**		
202	4	14	51	9		11	25	49	1·6	1·6	3·5	−54	72	·583	2·3	41	47·17	− 6·17	40·37	47·86	− 7·49	3·00	Bareilly	United Provinces (West Submontane).	24
239	4	11	7	7	11	19	43	24	1·4		1·8	−22	66	·457	3·5	68	80·90	−12·90	58·39	89·19	−30·80	3·97	Dehra Dun.		
209		9	12	76	10	10	5	34	2·5		2·5	0	68	·500	2·4	39	49·10	−10·10	43·27	43·22	+ 0·05	5·84	Roorkee.		

‡ Wind observation of 363 days. § Wind observation of 364 days. ‖ Wind observation of 361 days.

Table

Abstract of Observations taken at 8 A.M.

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 year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 A.M. of year.	Mean maximum of year.	Variation from normal of year.	Mean minimum of year.	Variation from normal of year.	Mean daily temperature of year.	Variation from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
22	United Provs., West.	Meerut	738	29·076	+·003?	29·802	29·458	28·622	·836	·267	69·0	88·9	+1·0	63·6	−0·2	76·2	+0·4	25·3	109·2	34·1	75·1	39·9
26	South East Punjab	Delhi	718	29·108	+·010	29·807	29·477	28·654	·823	·267	71·9	88·8	−0·2?	68·1	+0·7	78·5	+0·3?	20·7	111·7	40·2	71·5	36·6
28	Central Punjab	Lahore	702	29·118	+·016	29·810	29·532	28·613	·919	·316	69·5	91·1	+0·4	63·3	+2·4?	77·2	+1·4?	27·8	117·4	31·5	85·9	45·3
27	South Punjab	Sirsa	662	29·161	+·010	29·806	29·551	28·674	·877	·250	72·1	92·4	+0·5	65·1	+1·1	78·8	+0·8	27·3	115·8	33·0	82·8	43·7
		Patiala	818	29·004		29·810	29·387	28·545	·842	·278	70·6	88·1		63·2		75·7		24·9	111·5	32·0	79·5	40·2
29	Punjab Submontane.	Ludhiana	812	29·007	+·015	29·811	29·403	28·539	·864	·285	69·6	88·3	−0·1?	64·9	+1·1	76·6	+0·5?	23·4	113·9	34·0	79·9	38·7
		Sialkot	830	28·989	+·018	29·814	29·384	28·496	·888	·307	69·8	89·9	+2·2	64·4	+1·8	77·2	+2·0	25·5	117·0	33·0	84·0	43·2
		Umballa	892	28·929	?	29·814	29·298	28·486	·812	·266	69·1	89·1	+1·2	63·0*	−1·9?	76·8*	−0·3?	27·6*	111·9	32·0	79·9	43·7
31	North Punjab	Rawalpindi	1,674	28·154	+·009	29·848	28·513	27·691	·822	·302	66·4	86·5	+2·3	58·4	+0·8	72·5	+1·6	28·1	114·0	26·0	88·0	46·4
	VII.—N.-W. Frontier Province, Indus Valley and North-West Rajputana.				+·008							93·3	+2·0	66·6	+1·0	80·0	+1·5	26·7			81·8	43·5
31	North Punjab	Peshawar	1,110	28·739	+·006	29·863	29·148	28·217	·931	·325	68·9	87·9	+2·2	60·0	+0·8	74·0	+1·5	27·8	117·5	28·4	89·1	45·4
32	West Punjab	Khushab	612	29·224	?	29·824	29·644	28·702	·942	·332	71·4	91·2	+1·6	63·9	+0·2	77·6	+0·9	27·3	118·9	27·4	91·5	45·1
		Montgomery	558	29·260	+·016	29·798	29·686	28·729	·957	·326	73·5	92·6	+0·3	64·7	+0·3?	78·7	+0·3?	27·9	117·0	30·5	86·5	46·6
		D. I. Khan	590	29·246	+·005	29·804	29·672	28·714	·958	·339	69·9	91·9	+1·5	62·9	+0·5	77·4	+1·0	29·0	119·7	28·0	91·7	46·3
		Mooltan	420	29·398	+·003	29·797	29·844	28·845	·999	·329	72·3	94·2	+2·4	67·2	+1·9	80·7	+2·2	27·0	119·0	36·0	83·0	43·3
47	Sind	Jacobabad	186	29·630	−·001?	29·782	30·070	29·080	·990	·304	73·7	98·7	+3·1	67·0	+1·9	82·9	+2·5	31·7	125·0	32·0	93·0	49·2
		Hyderabad	96	29·748	+·006	29·799	30·141	29·244	·897	·269	75·6	95·0	+1·6	69·3	+1·0	82·2	+1·3	25·7	114·6	42·5	72·1	42·9
		Kurrachee	30	29·847	+·010	29·828	30·211	29·195	1·016	·299	76·6	90·0	+2·8	72·1	+2·3?	81·1	+2·6?	17·9	106·4	46·2	60·2	33·5
51	West Rajputana	Bikaner	771	29·057	+·013	29·810	29·439	28·571	·868*	·272	75·0	93·8	+1·8	69·8	+0·1	81·8	+1·0	24·0	115·8	39·1	76·7	40·9
		Pachpadra	380	29·487	+·029?	29·833	29·855	29·047	·808	·239	74·1	96·6	+1·9	66·7	+1·9	81·7	+1·9	29·9	116·5	34·0	82·5	44·7
		Jodhpur	782	29·069		29·846	29·412	28·614	·798	·241	75·4	94·9		69·5		82·2		25·4	114·3	41·1	73·2	40·8
	VIII.—East Rajputana, Central India and Gujarat.				+·013							91·8	+1·6	69·0	+1·5	80·4	+1·6	22·8			68·4	36·6
50	East Rajputana	Jaipur	1,431	28·432	+·016	29·844	28·751	27·984	·767	·240	74·3	92·6	+1·7	66·7	+1·1	79·7	+1·4	25·8	113·2	37·5	75·7	41·0
		Kotah	819	29·023		29·854	29·376	28·565	·811	·240	76·8	93·5		70·6		82·1		22·8	114·1	43·0	71·1	37·7
		Sambhar	1,254	28·602	+·024?	29·846	28·930	28·149	·781	·243	71·3	92·4	+2·3?	65·6	+0·5	79·0	+1·4?	26·7	112·5	34·0	78·5	42·1
		Ajmer	1,611	28·252	?	29·858	28·577	27·813	·764	·234	71·1	90·4	+1·4	66·9	+2·5?	78·6	+1·9?	23·5	108·4	35·0	73·4	38·9
		Udaipur	1,925	27·959		29·864	28·263	27·554	·709	·211	73·3	89·3		65·5		77·4		23·8	108·1	35·2	72·9	38·8
		Deesa	466	29·406	+·005	29·835	29·717	28·991	·726	·223	76·3	97·0	+3·2	69·4	+2·3	83·2	+2·8	27·6	115·1	43·6	71·5	41·4
46	Kathiawar and Cutch.	Bhuj	395	29·483	+·015	29·836	29·817	29·053	·764	·229	77·3	93·2	+1·8	69·7	+1·0	81·5	+1·4	23·5	110·8	45·0	65·8	37·5
		Jamnagar	61	29·835		29·842	30·162	29·346	·816	·226	76·6	91·8		69·4		80·6		22·4	105·2	41·1	64·1	34·5
		Rajkot	429	29·457	+·010	29·845	29·748	29·011	·737	·219	75·7	94·3	+1·2	67·8	+1·7	81·1	+1·5	26·5	110·9	40·6	70·3	39·5
		Verával	18	29·877	+·006	29·837	30·165	29·348	·816	·228	77·1	86·0	+0·8	72·7	+1·7	79·4	+1·3	13·3	104·2	53·8	50·4	25·8
		Dwarka	37	29·853		29·836	30·190	29·300	·890	·225	78·5	85·5		73·5		79·5		12·0	96·9	52·1	44·8	22·4
		Bhavnagar Para	55	29·852?	−·008?	29·854?	30·141	29·355	·786	·234	77·5	95·1	+2·2	70·7	+0·5	82·9	+1·3	24·4	112·2	45·2	67·0	37·3
49	Central India	Nowgong	757	29·089	+·009	29·820	29·434	28·571	·863	·244	72·9	90·0	+0·3	66·8	+1·2?	78·4	+0·7?	23·2	114·0	35·0	79·0	39·0
		Indore	1,823	28·069	+·027	29·860	28·252	27·670	·682	·211	73·9	89·5	+1·5	65·4	+1·7	77·5	+1·6	24·1	108·8	36·6	72·2	37·8
		Neemuch	1,630	28·251	+·020	29·863	28·561	27·841	·720	·218	72·8	90·5	+1·5	65·5	+1·2	78·0	+1·4	25·0	110·6	37·1	73·5	40·1
45	Gujarat	Surat	39	29·866	+·011	29·848	30·126	29·462	·664	·216	78·5	93·4	+1·8	72·0	+2·7?	82·7	+2·3?	21·4	110·1	51·6	58·5	33·7
		Ahmedabad	163	29·725	+·012	29·837	30·027	29·312	·715	·226	78·5	96·3	+2·2	72·6	+1·7	84·5	+2·0	23·7	115·4	49·2	66·2	35·7
22	United Provs., West.	Agra	555	29·283	?	29·810	29·649	28·804	·845	·266	73·9	91·3	+0·7	69·0	+1·3	80·2	+1·0	22·3	113·5	39·9	73·6	37·2
21	U. P., Central	Jhansi	858	29·000	+·014	29·819	29·343	28·499	·844	·252	75·7	92·1	+0·9	71·3	+2·3	81·8	+1·6	20·8	114·4	44·2	70·2	35·9

* Mean of 11 months.

I—*contd.*

at 225 stations in India, Burma, etc., in the year 1902—contd.

Wind direction. Number of winds from									Wind velocity.				Hygrometry 8 A.M.			Rainfall.									
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean velocity in miles per hour, by anemometer uncorrected.	Mean velocity corrected (where possible.)	Normal.	Percentage variation.	Mean humidity of year.	Mean vapour tension of year.	Mean cloud amount of year.	Number of rainy days during year.	Normal number of rainy days during year.	Variation.	Rainfall of year.	Normal rainfall of year.	Variation from normal.	Heaviest rainfall during year.	Station.	Meteorological Province or District.	Number of District.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
178	4	11	32	30	2	23	62	23	1·5	1·5	2·2	−32	64	·498	3·0	33	37·00	− 4·00	33·93	32·07	+ 1·86	5·72	Meerut	United Provinces, West.	22
60	16	21	26	45	4	20	88	75	4·3	4·0	3·6	+11	54	·470	2·6	28	37·10	− 9·10	27·25	28·09	− 0·84	3·13	Delhi	South-East Punjab.	26
161	29	13	28	61	12	4	34	23	2·5		2·5	0	63	·502	2·3	21	22·90	− 1·90	11·83	20·10	− 8·27	2·05	Lahore	Central Punjab.	28
33	23	80	33	51	20	56	25	44	5·4	4·9	3·6	+36	58	·495	0·4	18	23·40	− 5·40	6·99	14·43	− 7·44	1·17	Sirsa	South Punjab.	27
53	39	26	57	87	17	13	25	48	5·1	5·1			65	·535	2·8	25			16·46			3·31	Patiala.		
124	4	31	12	91	7	24	37	35	2·8	2·4	1·5	+60	60	·480	2·2	28	32·70	− 4·70	23·38	28·67	− 5·29	4·36	Ludhiana	Punjab (Submontane).	29
140	37	58	65	22	5	1	9	28	1·9		1·8	+ 6	61	·489	1·8	30	40·70	−10·70	20·90	31·75	−10·85	2·95	Sialkot.		
228		1	25	74	1		5	31	3·4				68	·529	2·7	37	36·90	+ 0·10	25·36	32·96	− 7·60	3·40	Umballa.		
230	32	28	13	14	9	6	10	23	2·5	2·3	2·0	+15	56	·403	2·7	41	47·30	− 6·30	24·83	33·98	− 9·15	1·61	Rawalpindi	North Punjab.	31
																			7·78	9·99	−2·21		**VII.—N.-W. Frontier Province, Indus Valley and North-West Rajputana.**		
250	18	12	8	3	14	9	22	29	2·1	2·3	3·4	−32	57	·443	2·5	15	23·80	− 8·80	4·12	13·09	− 8·97	0·50	Peshawar	North Punjab.	31
94	29	116	54	13	21	16	15	7	5·9	6·0			47	·426	1·8	22	18·00	+ 4·00	12·29	14·12	− 1·83	2·25	Khushab	West Punjab.	32
49	32	42	47	72	38	52	17	16	7·1	6·1			41	·411	1·6	9	16·10	− 7·10	4·98	10·25	− 5·27	1·42	Montgomery.		
228	30	63	6	16	3	1		18	1·7	1·8	1·8	0	62	·537	1·8	9	17·60	− 8·60	5·04	8·51	− 3·47	0·90	D. I. Khan.		
157	27	45	3	52	21	49	1	10	1·7	2·1	2·5	−16	58	·515	1·6	11	12·40	− 1·40	5·13	7·30	− 2·17	0·97	Mooltan.		
197	22	21	18	72	18	4		13	2·6	2·7	3·4	−21	63	·612	2·0	7	8·20	− 1·20	2·10	3·78	− 1·68	0·56	Jacobabad	Sind.	47
41	102	6	2	4	19	167	10	13	9·7	10·0	10·1	− 1	55	·531	1·6	13	9·70	+ 3·30	15·93	6·90	+ 9·03	3·80	Hyderabad†		
44	13	49	29	5	8	82	112	23	9·1	11·3	13·3	−15	71	·702	2·7	10	9·30	+ 0·70	18·23	8·26	+ 9·97	7·17	Kurrachee.		
22	14	26	44	41	48	66	78	25	7·6		4·8	+58	51	·501	1·9	13	18·80	− 5·80	5·83	11·29	− 5·46	0·86	Bikaner†	West Rajputana.	51
	49	33	58	9	92	79	35	9	7·7	6·9	5·8	+19	57	·551	0·6	11	19·10	− 8·10	5·08	13·30	− 8·22	2·42	Pachpadra.†		
50	19	103	17	6	25	93	49	3	6·1	5·5			45	·448	2·9	11	20·30	− 9·30	6·90	13·14	− 6·24	1·80	Jodhpur.		
																			23·57	28·51	−3·32		**VIII.—East Rajputana, Central India and Gujarat.**		
58	23	47	28	10	16	42	88	53	3·8		5·1	−25	51	·470	2·8	27	37·80	−10·80	18·71	26·05	− 7·34	2·95	Jaipur	East Rajputana.	50
120	19	7	13	13	9	82	55	47					51	·487	1·6	29	37·60	− 8·60	24·33	29·92	− 5·59	3·43	Kotah.		
178	20	19	22	7	9	9	66	35	5·7		6·7	−15	50	·433	2·5	24	31·30	− 7·30	13·27	20·74	− 7·47	2·74	Sambhar		
136	2	25	2	23	5	47	90	35	5·5		4·3	+28	61	·504	3·1	28	32·60	− 4·60	17·02	21·80	− 4·78	3·05	Ajmer.		
226	7	3	1	4	8	45	51	20	3·4	3·5			63	·556	2·3	31	34·10	− 3·10	21·59			2·93	Udaipur.		
	25	82	38	26	42	90	46	16	9·6		10·3	− 7	54	·541	2·6	20	28·81	− 8·81	13·43	24·12	−10·69	3·00	Deesa.		
	17	13	14	25	15	103	114	64	12·5		10·2	+23	70	·689	2·7	14	16·10	− 2·10	9·98	14·52	−4·54	2·14	Bhuj	Kathiawar and Cutch.	46
11	10	40	34	16	48	110	72	18	11·8	14·1			69	·681	2·5	16			10·24			1·77	Jamnagar		
10	22	21	68	15	10	65	110	44	10·4	10·3	9·2	+12	66	·624	3·3	23	30·90	− 7·90	25·15	28·13	− 2·98	3·84	Rajkot.		
10	65	73	30	11	12	57	54	45	10·3		7·9	+30	73	·717	3·3	26	29·20	− 3·20	17·51	18·24	− 0·73	3·15	Veraval.‡		
	47	57	26	3	6	79	89	58	15·0				77	·776	3·6	14			12·97			2·52	Dwarka.		
1	22	17	6	16	9	94	80	120	9·3	8·8			58	·579	3·5	36	34·70	+ 1·30	22·03	19·76	+ 2·27	3·29	Bhavnagar Para.		
79	17	10	38	20	22	48	107	24	2·1	2·1	2·5	−16	63	·529	3·7	43	50·70	− 7·70	42·43	44·96	− 2·53	9·16	Nowgong	Central India	49
77	16	30	25	20	11	25	103	58	6·1		4·2	+45	64	·556	3·8	41	45·30	− 4·30	30·26	33·64	− 3·38	2·19	Indore.		
34	23	83	30	13	5	62	99	16	9·1	8·2	10·1	−19	61	·532	2·8	36	37·40	− 1·40	28·57	30·08	− 1·51	3·10	Neemuch.		
27	52	35	61	16	59	50	47	17	6·9	6·5	9·0	−28	68	·694	2·8	46	47·40	− 1·40	55·08	44·03	+11·05	17·52	Surat	Gujarat.	45
2	35	58	26	19	15	95	11	90	3·9	6·6			57	·592	3·0	29	37·20	− 8·20	28·03	33·24	− 5·21	4·87	Ahmedabad.§		
84	2	30	1	44	1	142	1	60	3·7	4·3	4·2	+ 2	60	·535	2·4	29	35·30	− 6·30	22·63	28·42	− 5·79	2·48	Agra	United Provinces West.	22
60	11	26	3	19	9	128	49	60	4·0	4·4	3·4	+29	64	·598	1·5	43	43·90	− 0·90	34·60	38·51	− 3·91	5·24	Jhansi	United Provinces Central	21

† Wind observations of 364 days. ‡ Wind observations of 357 days.
§ " " 361 "

Table

Abstract of observations taken at 8 A.M.

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 year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 A.M. of year.	Mean maximum of year.	Variation from normal of year.	Mean minimum of year.	Variation from normal of year.	Mean daily temperature of year.	Variation from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	IX.—Deccan.				+·016							9·19	+1·5	68·6	+1·2	80·3	+1·4	23·3			67·4	36·4
38	Bombay Deccan	Belgaum	2,539	27·385	+·012	29·865	27·590	27·123	·457	·171	72·0	84·8	+0·4	64·7	+0·8	74·8	+0·6	20·2	102·3	49·5	52·8	31·2
		Sholapur	1,590	28·319	+·010	29·866	28·576	28·001	·575	·195	77·0	93·9	+0·9	70·3	+2·3	82·1	+1·6	23·6	110·2	47·6	62·6	35·2
		Poona	1,840	28·072	+·003	29·881	28·305	27·736	·569	·198	71·7	91·0	+1·7	65·7	+1·0	78·4	+1·4	25·3	107·1	45·5	61·6	37·0
		Bijapur	1,946	27·978	+·021	29·874	28·203	27·679	·524	·183	75·5	91·7	+1·8	68·8	+1·3	80·2	+1·6	22·9	107·5	46·6	60·9	34·7
40	Khandesh	Malegaon	1,430	28·467	+·009	29·865	28·747	28·090	·657	·211	75·3	93·3	+1·8	66·9	+1·7	80·1	+1·8	26·5	110·8	43·3	67·5	39·6
		Ahmednagar	2,152	27·780	+·028	29·885	28·034	27·438	·596	·197	74·5	90·4	+1·5	65·3	+1·7	77·8	+1·6	25·1	106·4	40·9	65·5	37·5
41	Berar	Akola	930	28·[illegible]58	+·016P	29·8[illegible] P	29·254	28·562	·685	·221	76·7	94·7	+1·9	69·1	+2·0	81·9	+1·9	25·6	113·5	39·9	73·6	39·4
		Amraoti	1,215	28·674	+·027	29·851	28·960	28·279	·681	·204	77·9	93·5	+1·5P	71·2	+2·4	82·4	+2·1P	22·3	113·0	47·5	65·5	34·8
42	Central Provinces, West.	Khandwa	1,044	28·841	+·018	29·857	29·137	28·436	·701	·217	75·2	93·7	+1·9	68·9	+2·1P	81·3	+2·0P	24·8	114·2	37·2	77·0	39·6
		Hoshangabad	1,006	28·880	+·024	29·862	29·204	28·447	·757	·221	74·3	91·8	+1·4	68·4	+1·4	80·1	+1·4	24·3	113·0	39·2	72·8	36·8
		Nagpur	1,025	28·849	+·023	29·842	29·153	28·436	·717	·221	76·4	94·0	+1·9	70·4	+1·6	82·2	+1·7	25·6	114·2	44·1	70·1	36·9
43	Central Provinces, Central.	Chanda	634	29·310†P	P	29·900P+	29·572	28·993	·579	·210†	77·6	95·0	+2·1	69·2	+0·6	82·1	+1·4	25·8	114·2	39·0	75·2	40·6
		Seoni	2,033	27·848	+·020	29·838	28·140	27·408	·732	·216	74·3	89·6	+1·8	65·9	+1·0	77·7	+1·4	23·7	108·9	38·0	70·9	37·8
		Jubbulpore	1,327	28·527	+·014	29·833	28·851	28·028	·823	·235	72·5	90·1	+1·6	65·4	+0·9	77·8	+1·3	24·7	112·0	32·9	79·1	39·4
		Saugor	1,807	28·069	+·026	29·844	28·382	27·608	·774	·219	74·7	88·9	+0·9	68·5	+2·3	78·7	+1·6	20·4	110·5	43·1	67·4	34·6
49	Central India	Sutna	1,040	28·807	+·017	29·826	29·144	28·294	·850	·246	73·7	89·5	+1·4	67·9	+2·2	78·7	+1·9	21·7	113·6	35·5	78·1	37·1
44	Central Provinces, East.	Raipur	970	28·892	+·016	29·82	29·214	28·456	·758	·230	77·2	92·5	+2·1	68·7	−0·6	80·6	+0·8	23·9	114·5	39·3	75·2	38·3
		Sambalpur	486	29·382	+·015	29·825	29·719	28·883	·833	·247	76·8	92·7	+1·7	69·9	−0·2	81·4	+0·8	22·8	114·6	44·1P	70·5	36·7
29	Hyderabad, North.	Aurangabad	1905	28·013		29·867	28·264	27·657	·607	·202	76·6	90·9		66·7		78·8		24·2	107·6	41·1	66·5	37·5
		Indur									77·9	92·5		67·2		79·9		25·2	111·2	43·1	68·1	37·9
		Bidar	2,165P	27·750		29·851	27·984	27·433	·551	·186	77·5	90·1		65·5		79·8		20·6	108·2	53·0	55·2	31·0
53	Hyderabad, South	Gulbarga	1,503	28·408	+·012	29·865	28·655	28·101	·554	·193	77·6	93·9	+1·5	70·2	+1·4	82·0	+1·5	23·7	110·6	46·3	64·3	37·2
		Raichur	1,326	28·583	+·020	29·866	28·828	28·312	·516	·189	77·9	92·9	+0·8	72·5	+0·8	82·7	+0·8	20·4	110·0	52·2	57·8	31·8
		Hyderabad (Dn.)	1,690	28·216	+·018	29·863	28·482	27·904	·578	·202	75·7	91·6	+1·0	70·5	+2·1P	81·1	+1·6P	21·1	109·9	47·3	62·6	33·4
		Secunderabad	1,787	28·120	+·007	29·865	28·365	27·808	·557	·199	74·8	92·8	+2·2P	70·1	+1·7	81·5	+2·0P	22·7	110·8	46·7	64·1	35·3
		Hanumkonda	871	29·016		29·840	29·303	28·686	·617	·210	77·9	93·3		72·4		82·9		20·8	112·7	47·1	65·6	34·6
	X.—West Coast.				+·008							86·8	+0·7	75·5	+1·1	81·2	+1·0	11·4			30·2	19·0
37	Konkan	Bombay	37	29·879	+·005	29·855	30·119	29·481	·638	·207	79·3	87·4	+1·6	76·7	+1·8	82·1	+1·7	10·7	95·0	64·0	31·0	18·3
		Ratnagiri	110	29·815	P	29·863	30·033	29·479	·554	·188	79·4	87·8	+0·3	74·8	+1·7	81·3	+1·0	13·0	96·9	60·9	36·0	21·8
		Mormugao	60	29·871	+·010	29·866	30·079	29·611	·468	·172	79·3	86·7	+0·5	76·2	+1·2	81·5	+0·9	10·5	93·5	65·3	28·2	18·5
		Goa	199								79·1	84·4	−1·6P	76·7	+2·3P	80·6	+0·4P	7·7	91·0	66·0	25·0	15·4
		Karwar	44	29·889	+·010	29·865	30·082	29·662	·420	·168	77·4	86·8	+0·5	74·1	+1·4	80·5	+1·0	12·7	92·8	60·5	32·3	21·4
33	Malabar	Cochin	10	29·940	+·010	29·877	30·107	29·813	·294	·132	79·2	89·5	+1·9	75·4	+0·5	82·4	+1·3	14·1	97·5	60·9	36·6	21·3
		Calicut	27	29·914	+·003	29·870	30·088	29·770	·318	·145	79·0	87·4	+0·4	74·5	+0·4	81·0	+0·4	12·9	94·9	65·0	29·9	19·7
		Mangalore	65	29·869	+·002	29·866	30·047	29·696	·351	·152	79·4	87·0	−0·1	75·2	+1·0	81·1	+0·5	11·8	96·2	65·5	30·7	20·5
		Trivandrum	198	29·747	+·019	29·877	29·915	29·623	·292	·138	78·3	84·5	+0·5	75·7	+2·3P	80·1	+1·4P	8·8	90·5	68·0	22·5	14·5
	XI.—South India.				+·017							90·6	+0·4	72·7	+0·7	81·6	+0·5	17·9			48·1	28·9
57	Madras, South	Pamban	37	29·899		29·863	30·110	29·735	·375	·149	81·8	88·1		77·4		82·8		10·8	94·8	69·2	25·6	17·5
		Tinnevelly	168	29·768	+·016	29·867	30·000	29·591	·409	·159	81·7	93·9	−0·3	76·5	−0·1	85·2	−0·2	17·5	105·0	63·9	41·1	27·3
		Madura	447	29·483	+·019	29·868	29·766	29·302	·404	·160	80·9	93·4	−0·5	74·2	+0·3	83·8	−0·1	19·2	104·5	62·2	42·3	28·5
		Periyakulam	945	28·990			29·205	28·810	·395	·152	77·4	92·1		70·2		79·9		22·0	102·3	55·1	47·2	32·6
34	Madras, South Central.	Salem	940	29·067	+·001P	29·893	29·227	28·815	·412	·164	78·2	92·7	−0·2	71·5	+0·8	82·1	+0·3	21·3	105·2	55·0	50·2	32·4
		Coimbatore	1,348	28·591	+·016	29·894	28·806	28·408	·398	·154	75·9	89·7	−0·6	70·4	+0·8	80·1	+0·1	19·3	100·9	58·2	42·7	29·5
35	Coorg	Mercara	3,781	26·253	+·024P		26·405	26·092	·313	·131	65·4	76·8	+0·3	61·5	+0·2	69·2	+0·3	15·3	89·0	50·1	38·9	24·5

* Mean of 11 months
† " " 10 " "

I—*contd.*

at 225 stations in India, Burma, etc., in the year 1902—contd.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry 8 A.M. Mean humidity of year.	Mean vapour tension of year.	Mean cloud amount of year.	Rainfall. Number of rainy days of year.	Normal number of rainy days during year.	Variation.	Rainfall of year.	Normal rainfall of year.	Variation from normal.	Heaviest rainfall during year.	Station.	Meteorological Province or District.	Number of District.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
																			30·85	39·99	−8·81		**IX.—Deccan.**		
61	16	27	47	35	14	72	76	17	14·1		15·7	−10	73	·571	4·8	78	70·70	+ 7·30	52·97	50·13	+ 2·84	6·50	Belgaum . .	Bombay, Deccan.	
4	16	39	35	76	8	58	38	86	11·2	13·6	8·9	+53	56	·523	4·3	35	42·00	− 7·00	30·41	30·98	− 0·57	5·69	Sholapur.		
31	5	9	29	10	7	75	108	73	10·5	11·9	10·0	+19	67	·534	3·8	44	49·60	− 5·60	23·90	27·89	− 3·99	1·90	Poona.‖		
65	24	24	30	16	18	49	98	41					68	·606	4·7	38	42·40	− 4·40	19·05	24·58	− 5·53	1·68	Bijapur.		
	26	15	9	8	14	63	135	95	7·0	8·1	7·2	+13	56	·506	4·8	36	34·90	+ 1·10	21·86	24·08	− 2·22	1·54	Malegaon . .	Khandesh.	
76	33	26	5	32	23	30	38	102	7·2	8·8			61	·516	3·8	32	39·60	− 7·60	29·10	22·42	+ 6·68	5·86	Ahmednagar.		
37	4	17	40	22	11	28	74	82	5·9	5·8	5·5	+ 5	56	·526	3·5	39	44·40	− 5·40	27·45	34·16	− 6·71	2·21	Akola . . .	Berar.	41
	15	67	56	17	30	63	84	33	8·5	7·5	4·7	+60	56	·554	3·7	41	46·80	− 5·80	28·30	34·63	− 6·33	3·26	Amraoti.		
37	8	5	36	24	8	17	100	80	7·1		5·4	+31	58	·521	3·0	40	42·30	− 2·30	33·68	31·35	+ 2·33	4·02	Khandwa . .	Central Provinces West.	42
8		192		24		173		18	3·9	4·0	3·0	+33	64	·561	2·7	48	56·00	− 8·00	36·31	52·08	−15·77	2·94	Hoshangabad.		
47	75	46	24	10	13	29	42	79	6·5		6·4	+ 2	56	·511	3·6	46	58·60	−12·60	28·24	49·49	−21·25	3·53	Nagpur.		
138	13	16	25	33	23	33	48	36	4·6		3·7	+24	62	·596	2·9	42	61·70	−19·70	29·21	55·75	−26·54	3·19	Chanda . .	Central Provinces, Central.	43
	70	75	20	24	38	45	41	52	4·6		3·9	+18	57	·487	2·6	52	71·40	−19·40	30·24	55·27	−25·03	1·84	Seoni.		
38	6	18	12	68	75	52	70	26	3·2	2·9	3·3	−12	66	·529	2·6	49	63·90	−14·90	37·21	59·11	−21·90	3·72	Jubbulpore.		
1	9	31	48	64	36	42	127	7	5·8	6·6	3·5	+89	53	·483	3·1	42	58·10	−16·10	36·50	48·57	−12·07	4·14	Saugor.		
56	20	15	27	16	6	45	110	70	4·5	4·8	6·1	−21	60	·516	3·9	54	54·60	− 0·60	35·56	45·88	−10·32	2·64	Sutna . . .	Central India.	49
90	12	34	20	11	21	119	28	30	5·2	4·8	5·6	−14	56	·525	2·8	43	62·50	−19·50	28·12	50·65	−22·53	2·37	Raipur . . .	Central Provinces, East.	44
	34	56	35	43	33	84	43	36	4·3	4·2	2·3	+83	68	·657	2·8	61	72·00	−11·00	53·33	67·39	−14·06	4·70	Sambalpur.‡		
81	9	20	59	30	2	38	94	32	9·6	9·4			56	·503	3·3	51	47·40	+ 3·60	35·29	30·45	+ 4·84	4·02	Aurangabad.	Hyderabad, North	39
123	34	16	1	10		21	14	77	7·1	6·0			61	·586	3·4	47	58·30	−11·30	32·57	39·57	− 7·00	3·66	Indur.§		
13	12	51	39	31	12	170	17	20	9·7	8·2			67	·619	1·1	42	59·10	−17·10	26·69	39·71	−13·02	1·68	Bidar.		
61	27	37	59	21	17	32	67	44	10·2	9·7			66	·630	3·8	45	48·70	− 3·70	27·86	31·75	− 3·89	4·55	Gulbarga . .	Hyderabad, South	53
36	6	16	39	68	18	106	41	35	10·5	10·0			63	·624	2·1	47	44·20	+ 2·80	24·63	30·74	− 6·11	4·85	Raichur.		
175	4	2	26	17		22	106	13	5·2	5·1			69	·613	4·0	43			24·97	31·56	− 6·59	2·18	Hyderabad (Dn.)		
63	10	36	67	34	3	21	69	62	7·1		6·5	+9	70	·611	3·4	43	52·70	− 9·70	25·96	31·56	− 5·60	4·60	Secunderabad.		
79	21	3	4	93	49	24	51	41	8·3	7·0			68	·655	4·5	45	51·40	− 6·40	22·59			1·67	Hanumkonda.		
																			116·06	101·74	+14·32		**X.—West Coast.**		
2	39	77	69	29	20	34	68	27	10·0		12·2	−18	78	·802	4·3	65	75·60	−10·60	71·97	75·21	− 3·24	5·97	Bombay . .	Konkan.	37
73	21	19	64	57	14	29	44	43	6·3	6·2	10·2	−39	75	·761	4·1	93	93·80	− 0·80	96·62	107·35	−10·73	4·83	Ratnagiri.‡		
32	37	33	84	43	17	7	42	70	8·6				83	·837	4·6	108			128·49	93·43	+35·06	7·73	Mormugao.		
20	32	82	114	8	17	24	38	30					81	·811	5·1	100			131·24	98·43	+32·81	7·39	Goa.		
92	35	71	75	4	1	41	28	17	4·4				81	·766	3·9	114	105·50	+ 8·50	151·83	123·78	+28·05	12·16	Karwar.		
36	100	117	39	7	3	11	15	37	5·2				81	·824	4·2	132	130·60	+ 1·40	118·09	115·63	+ 2·46	4·73	Cochin . . .	Malabar.	33
61	43	93	89	20	7	7	8	37	7·4	9·4			83	·827	5·3	119	116·10	+ 2·90	135·97	115·11	+20·86	9·14	Calicut.		
158	10	8	83	62	3	5	8	28	2·7		3·4	−21	81	·813	5·4	111	117·90	− 6·90	150·61	123·94	+26·67	9·30	Mangalore.		
128	77	37	25	3	1	2	10	82	5·0				81	·795	5·5	98	92·90	+ 5·10	59·76	62·78	− 3·02	2·67	Trivandrum.		
																			41·93	36·15	+5·78		**XI.—South India.**		
5	32	84	46	49	27	94	15	13	9·9	10·5			82	·892	3·3	57	42·70	+14·30	48·11	38·97	+ 9·14	5·02	Pamban . .	Madras, South.	57
1	88	37	12	8	10	22	75	112	5·3	5·1			73	·788	4·9	58	41·40	+16·60	43·49	28·63	+14·86	3·17	Tinnevelly.		
84	101	56	11	10	4	20	9	70	2·3	2·3	4·2	−45	75	·785	4·3	64	50·20	+13·80	46·42	33·30	+13·12	3·04	Madura.		
211	25	14	21	14	21	21	26	12	2·7	2·9			73	·688	4·7	64	48·30	+15·70	37·25	28·86	+ 8·39	2·43	Periyakulam.		
165	3	20	63	2	14	54	37	7	3·2	2·9	4·4	−34	79	·774	5·1	80	59·50	+20·50	48·65	40·50	+ 8·15	4·55	Salem . . .	Madras, South, Central.	34
1		40	139	9	24	66	86		3·5*	3·2*	4·9*	−35	84	·763	4·8	61	43·60	+17·20	36·28	20·90	+15·38	3·05	Coimbatore.		
173	17	36	33	1		1	83	21	4·9	4·5	5·8	−22	88	·565	7·7	126	134·70	− 8·70	120·65	125·94	− 5·29	7·13	Mercara . .	Coorg.	36

‡ Wind observation of 364 days. § Wind observation of 296 days. ‖ Wind observation of 347 days.

Table

Abstract of observations taken at 8 A. M.

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 year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 A.M. of year.	Mean maximum of year.	Variation from normal of year.	Mean minimum of year.	Variation from normal of year.	Mean daily temperature of year.	Variation from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
36	Mysore	Chitaldroog	2,405	27·534	+·010	29·866	27·738	27·299	·439	·157	74·5	87·6	+1·1	68·4	+1·2	78·0	+1·2	19·3	101·7	52·5	49·2	29·5
		Bangalore	3,021	26·959	+·012	29·891	27·142	26·772	·370	·150	70·6	85·0	+0·8	64·9	+0·8	74·9	+0·8	20·1	97·8	50·9	46·9	30·9
		Hassan	3,091	26·895	+·012	29·900	27·076	26·711	·365	·140	71·6	82·7	−0·1	63·1	+0·9	72·9	+0·5	19·5	94·9	48·7	46·2	30·7
		Mysore	2,518	27·451	+·013	29·900	27·626	27·278	·348	·148	72·6	86·8	+0·4	66·2	+0·5	76·5	+0·5	20·6	97·6	52·9	44·7	30·7
56	Madras, East Coast, South.	Negapatam	31	29·890	+·009	29·850	30·122	29·687	·435	·160	82·1	89·7	−0·2	77·7	+1·8?	83·7	+0·8?	12·0	105·1	65·0	40·1	22·2
		Cuddalore	12	29·912	+·018	29·853	30·155	29·691	·464	·176	80·6	90·2	−0·2	75·4	+1·3	82·8	+0·5	14·8	105·2	63·2	42·0	24·2
		Trichinopoly	255	29·681	+·016	29·870	29·925	29·485	·440	·164	80·2	94·2	−0·2	74·7	+0·6	84·4	+0·2	19·5	105·7	59·9	45·8	29·4
		Madras	22	29·898	+·010	29·850	30·165	29·658	·507	·188	81·3	91·0	+0·1	75·4	+0·7	83·2	+0·4	15·6	108·0	62·0	46·0	26·2
		Vellore	707	29·208		29·861	29·460	29·010	·450	·180	78·0	92·2		73·3*		83·2*		19·8*	103·3	51·4	56·9	34·4*
55	Madras, East-Coast, Central.	Nellore	71	29·845	+·028	29·850	30·126	29·588	·538	·198	81·2	93·6	−0·7?	75·7	+0·6	84·8	−0·1?	17·9	112·3	61·1	51·2	28·9
		Masulipatam	15	29·900	+·028	29·849	30·206	29·598	·608	·206	80·6	91·1	+0·5	74·9	+0·5	83·0	+0·5	16·2	113·2	58·2	55·0	29·0
54	Madras, Central	Cuddapah	433	29·483	+·012	29·856	29·739	29·242	·497	·193	81·8	96·3	+0·8	75·0	+0·6	85·7	+0·7	21·3	111·3	54·3	57·0	34·8
		Kurnool	945	28·975	+·017	29·865	29·229	28·702	·527	·199	77·6	95·1	+1·4	71·7	+1·1	83·4	+1·3	23·5	112·3	44·2	68·1	35·8
		Bellary	1,475	28·448	+·021	29·876	28·688	28·199	·489	·185	77·8	94·3	+1·2	71·9	+1·2	83·1	+1·2	22·4	108·5	53·1	55·4	34·0
52	Madras, East-Coast, North.	Cocanada	26	29·874	+·022*	29·836	30·178	29·551	·627	·215	80·2	90·6	+1·2	75·5	+0·6	83·1	+0·9	15·1	112·5	57·0	55·5	28·8
		Waltair (Vizag.)	226	29·664	+·012?	29·833	29·984	29·297	·687	·219	80·4	87·3	−1·8?	75·7	+0·7	81·5	−0·7?	11·6	102·9	60·0	42·9	22·2
		Gopalpur	21	29·853?	+·022?	29·814?	30·195	29·393	·802	·234	78·1	86·7	+0·7	72·6	−0·6	79·7	+0·1	14·0	104·8	49·6	55·2	24·6
	XII.—Hill Stations.																					
42	Baluchistan	Pishin										77·9		42·1		60·0		35·8	103·4	3·0	100·4	54·9
		Quetta	5,502	24·650	+·029		24·887	24·331	·556	·210	56·7	76·4	+2·9	45·3	+0·9	60·9	+1·9	31·1	98·6	11·8	86·8	49·9
		Kalat*									61·0	78·3	+1·9	32·5	−3·8?	55·4	−1·0?	45·8	102·4	0·2	102·2	67·1
		Chaman	4,311	25·677	+·005		25·986	25·256	·730	·248	67·3	81·6	+2·3	56·2	+1·8	68·9	+2·0	25·4	108·2	16·1	92·1	44·7
30	Punjab and North-West Frontier Province.	Leh	11,503	19·732	+·029		19·364	19·317	·647	·348	37·0	54·0	−1·5	29·4	−0·4	41·7	−1·0	24·6	81·7	0·5	81·2	41·9
		Srinagar	5,204	24·921	+·033		25·223	24·554	·669	·323	48·5	69·0	+3·1	43·3	−0·7	56·2	+1·2	25·7	91·9	11·1	80·8	43·9
		Sonemarg		21·853			22·073	21·469	·604	·300	36·6	54·8		29·4		42·1		25·4	81·8	−9·9	91·7	48·9
		Skardu		22·893			23·303	22·466	·837	·423	47·3	63·9		41·6		52·8		22·3	100·1	7·1	93·0	41·3
		Dras		20·824			21·110	20·368	·742	·354	31·6	50·8		21·4		36·1		29·4	88·0	−29·4	117·4	54·7
		Gilgit	4,890	25·157			25·610	24·709	·901	·440	57·8	73·5	+0·8	52·5	−0·7	63·0	0	21·0	107·0	21·9	85·1	40·7
		Chitral		24·428			24·850	23·975	·875	·329	56·3	75·9		48·4		62·2		27·5	105·2	25·0	80·2	44·5
		Killa Drosh									58·1	74·7		53·9		64·3		20·8	103·7	29·4	74·3	39·1
		Para Chinar	6,000	24·462			24·727	24·171	·556	·264	59·2	71·8		50·0		60·9		21·8	99·1	22·2	76·9	39·7
		Cherat		25·698	+·029		25·931	25·362	·569	·266	63·5	75·5	+1·8	58·0	+1·2	66·8	+1·5	17·5	105·9	35·0	70·9	37·6
		Murree	6,333	23·849	+·020		24·061	23·575	·486	·250	57·3	65·7	0	49·0	−1·8	57·4	−0·9	16·7	90·4	26·0	64·4	36·3
		Poo										62·1		41·6		51·9		20·5	85·1	20·4	64·7	35·6
		Simla	7,224	23·120	+·029		23·315	22·876	·439	·207	53·9	61·5	+0·7	50·2	+0·3	55·9	+0·5	11·3	83·5	31·2	52·3	25·3
25	United Provinces	Chakrata	7,022	23·283	+·018		23·490	23·029	·461	·207	53·8	64·2	0	50·1	+0·4	57·2	+0·2	14·1	79·3	32·4	46·9	28·4
		Mussooree	6,705	23·557	+·024		23·782	23·294	·488	·219	55·4	63·7	−0·4	51·1	+0·4	57·4	0	12·6	83·3	32·0	51·3	26·6
		Ranikhet	6,069	24·109	+·024		24·322	23·824	·498	·212	58·1	68·4	+0·5	53·8	+0·5	61·1	+0·5	14·6	86·0	33·5	52·5	27·9
		Muktesar	7,600	22·852			23·049	22·607	·442	·204	54·5	65·0		48·5		56·8		16·5	84·6	28·1	56·5	30·4
13	Bengal	Yatung	10,480?									53·9		34·5		44·2		19·4	69·1	15·9	53·2	33·3
		Darjeeling	7,376	23·006	0		23·202	22·784	·418	·202	53·0*	59·9*	+0·4*	48·3*	−0·3*	54·1*	+0·1*	11·6*	71·7	30·4	41·3	22·2

* Mean of 11 months.

I—*contd.*

at 225 stations in India, Burma, etc., in the year 1902—contd.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Wind velocity. Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Hygrometry 8 A.M. Mean humidity of year.	Mean vapour tension of year.	Mean cloud amount of year.	Rainfall. Number of rainy days during year.	Normal number of rainy days during year.	Variation.	Rainfall of year.	Normal rainfall of year.	Variation from normal.	Heaviest rainfall during year.	Station.	Meteorological Province or District.	Number of District.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
30	4	12	60	46	8	70	106	29	8·5	7·3			71	·604	4·9	46	48·50	— 2·50	30·24	26·33	+ 3·91	3·59	Chitaldroog.	Mysore.	36
7	6	29	92	29	17	79	95	11	9·3	8·2	5·2	+58	78	·588	5·4	49	58·60	— 9·60	32·62	35·06	— 2·44	4·48	Bangalore.		
16	4	44	69	42	9	42	83	56	3·6	3·2			76	·586	5·9	62	68·20	— 6·20	42·47	35·09	+ 7·38	5·35	Hassan.		
7	8	56	54	21	10	111	74	24	8·3	8·9			77	·615	6·5	62	55·90	+ 6·10	30·96	30·91	+ 0·05	4·39	Mysore.		
60	16	57	8	30	20	92	41	41	8·1	7·1	5·6	+ 27	76	·846	4·9	75	58·20	+16·80	66·40	55·56	+10·84	3·85	Negapatam	Madras, East Coast, South.	56
283	8	4	4		6	25	22	13	1·6	2·0			80	·838	7·0	78	56·30	+21·70	72·20	52·58	+19·62	5·62	Cuddalore.		
191	7	35	4	3	7	31	82	5	4·1		5·8	— 29	76	·778	4·2	62	44·60	+17·40	39·80	32·54	+ 7·26	2·12	Trichinopoly.		
1	48	42	15	6	105	65	55	28	6·7		7·1	— 6	77	·820	4·7	63	83·70	—20·70	54·44	50·39	+ 4·05	9·16	Madras.		
181	3	16	11	26	8	42	16	61	3·5	3·5			76	·720	5·3	66	54·90	+11·10	44·53	38·47	+ 6·06	4·53	Vellore.†		
54	36	2	3	42	62	16	55	95	5·8				75	·788	5·6	64	42·40	+21·60	61·38	30·73	+30·65	7·45	Nellore	Madras, East Coast, Central.	55
43	79	38	7	21	43	29	50	55	8·6	8·4	7·0	+ 20	85	·898	5·1	53	51·00	+ 2·00	49·75	40·91	+ 8·84	9·50	Masulipatam.		
	4	58	44	67	2	48	80	62					67	·726	4·1	47	43·70	+ 3·30	27·18	32·69	— 5·51	3·14	Cuddapah	Madras, Central.	54
135	16	17	21	14	8	34	82	38					65	·621	4·0	39	47·60	— 8·60	19·55	28·40	— 8·85	1·48	Kurnool.		
66	14	10	33	41	26	37	82	56	6·5	6·9	6·5	+ 6	63	·600	4·4	35	34·30	+ 0·70	22·20	19·73	+ 2·47	2·90	Bellary.		
36	49	57	4	8	13	98	43	57	8·9	7·5			78	·814	4·7	49	53·90	— 4·90	41·59	39·84	+ 4·75	6·40	Cocanada	Madras, East Coast, North.	52
7	6	85	5	5	25	208	19	5	12·7				71	·742	5·5	43	49·60	— 6·60	33·73	43·54	— 9·81	3·93	Waltair (Vizag.).		
6	100	3	3	2	46	105	12	88	14·1	13·9	9·6	+ 45	80	·781	2·3	53	55·20	— 2·20	32·19	47·53	—15·34	2·96	Gopalpur.		
																							XII.—Hill Stations.		
																8	23·20	—15·20	2·82	9·98	— 7·16	0·45	Pishin.	Baluchistan.	33
339		3	1	6	3	2	6	3	1·7	1·8	4·1	— 56	58	·288	1·5	10	26·80	—16·80	3·90	10·68	— 6·78	0·54	Quetta.		
	49		56		216		9						47	·264		9	16·80	— 7·80	2·50	5·14	— 2·64	0·61	Kalat.‡		
118	11	8	26	57	50	63	16	16	7·5	8·2			43	·283	2·0	6	19·60	—13·60	2·68	6·29	— 3·61	0·69	Chaman.		
	11	87	71	19	61	56	46	4	2·4				53	·133	4·1	9	9·30	— 0·30	2·93	3·00	— 0·07	0·49	Leh	Punjab and North-West Frontier Province.	30
152	26	17	24	62	59	8	12	21	3·1	3·3			88	·348	3·8	53	56·50	— 3·50	22·41	24·74	— 2·33	1·27	Srinagar		
141	22	85	37	28	10	3	26	13	4·9	4·4			82	·201	3·3	97			55·49			3·16	Sonemarg.		
215	8	37	16	2	17	39	30	1	4·1	4·3			66	·216	4·1	11	17·00	— 6·00	5·23	10·45	— 5·22	0·70	Skardu.		
283	1	6	10	13	3	23	18	8	3·8	3·9			80	·174	3·9	39	61·10	—22·10	16·45	24·53	— 8·08	1·33	Dras.		
322	1		4	1		20	13	1	3·4	3·1			47	·239	5·0	20	14·00	+ 6·00	6·02	4·80	+ 1·22	0·75	Gilgit.§		
324	12	2	6	2	9		3	3					62	·284	2·4	28			8·49			0·48	Chitral.‖		
279	1	4	19		3	3	26						49	·251	2·3	39			12·01			0·82	Killa Drosh.¶		
289	25	12	8	3	4	6	7	11	3·6				51	·268	3·0	57	58·20	— 1·20	21·18	25·18	— 4·00	1·50	Para Chinar.		
1	62	77	2	37	37	30	3	116	8·5	7·9			44	·289	2·4	29			12·74	24·43	—11·69	2·25	Cherat.		
193	20	14	15	52	25	5	6	30	5·6*	6·2*			54	·281	3·1	64	77·30	—13·30	40·55	55·85	—15·30	1·93	Murree		
268	1	13	21	25	10	18	3	4							3·9	44			21·47	18·56	+ 2·91	1·73	Poo.**		
88	105	30	22	33	36	3	1	39					54	·246	3·9	75	80·10	— 5·10	40·36	63·59	—23·23	1·65	Simla.§§		
153	118	29		8	25	2		20	8·8		5·1	+ 73	61	·278	3·6	74	88·00	—14·00	58·65	70·71	—12·06	3·93	Chakrata.††	United Provinces.	25
26	8	12	96	40	19	27	102	35					61	·294	3·3	81	87·60	— 6·60	87·60	96·26	— 8·66	6·77	Mussooree.		
180	12	24	28	10	4	49	37	21	2·7	3·1	2·1	+ 48	63	·326	3·2	66	79·70	—13·70	40·37	54·52	—14·15	4·42	Ranikhet.		
19	15	17	30	105	20	24	14	121	6·1	5·6			60	·276	3·3	71			42·18			2·92	Muktesar.		
																125	125·25	— 0·25	60·53	49·48	+11·05	4·76	Yatung	Bengal.	13
147	9	33	31	50	8	27	33	16	4·5	4·2	3·7*	+ 14	84*	·364*	5·2	138	121·09	+16·91	150·78	124·38	+26·40	12·20	Darjeeling.‡‡		

† Wind observations of 364 days.
‡ " " " 330 "
‖ " " " 362 "
‡‡ " " " 361 "

¶ Wind observations of 335 days.
** " " " 363 "
†† " " " 365 "
‡‡ " " " 354 "
§§ " " " 357 "

Table

Abstract of observations taken at 8 A.M.

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 45° Lat. gravity	Highest pressure recorded during year.	Lowest pressure recorded during year.	Absolute range during year.	Mean monthly range of pressure.	Temperature of air. Mean of 8 A.M. of year.	Mean maximum of year.	Variation from normal of year.	Mean minimum of year.	Variation from normal of year.	Mean daily temperature of year.	Variation from normal of year.	Mean daily range of temperature.	Highest temperature observed during year.	Lowest temperature observed during year.	Absolute range during year.	Mean monthly absolute range.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Central India.	Mount Abu	3,945	26·043	+·014		26·296	25·696	·600	·209	69·0	77·6	+1·5	63·7	+1·7	70·7	+1·6	13·9	95·2	45·1	50·1	25·4
		Pachmarhi	3,528	26·445	+·019		26·694	26·031	·663	·204	70·2	82·6	+3·1	62·7	+1·5	72·7	+2·3	21·9	101·7	32·3	69·4	33·2
	South India	Wellington*	6,200	24·263	+·011		24·417	24·111	·306	·125	61·6	71·6	+1·0	52·9	−0·4	62·3	+0·3	18·7	81·2	34·7	46·5	30·5
		Kodai kanal	7,688	22·849			22·968	22·719	·249	·107	54·3	64·7		51·3		56·4		13·3	75·2	39·4	35·8	22·5
		Ootacamund		23·075			23·194	22·929	·265	·112	58·2	65·5		50·0		57·7		15·4	75·6	35·1	40·5	26·4
	XIII.—Extra India.																					
	Ceylon	Trincomalee	12	29·926	P	29·864	30·123	29·768	·355	·143	80·3	88·5	−0·1	76·5	+0·1	82·5	0	12·0	98·0	69·0	29·0	18·3
		Colombo	40	29·912	+·007	29·878	30·077	29·788	·289	·136	80·4	88·1	+1·1	75·3	−0·2	81·7	+0·4	12·8	93·5	65·0	28·5	18·8
	Persia	Meshed	3,104								56·7			47·2	+1·4					4·0		
		Teheran		25·934			26·440	25·550	·890	·412	62·2	75·3	+2·3	52·9	+1·9	64·1	+2·1	22·4	107·0	15·0	92·0	44·6
		Ispahan		24·302			24·640	23·970	·670	·382	58·0	75·5	+1·4	45·6	+0·4	60·6	+0·9	29·9	103·5	16·9	86·6	47·0
		Bushire	14	29·871	+·010	29·844	30·422	29·397	1·025	·329	74·7	82·9	+0·8	69·7	+1·2	76·3	+1·0	13·2	109·0	44·3	64·7	31·7
		Bahrein	30	29·868			30·451	29·431	1·020	·301	77·8*	84·8*		69·7*		77·3*		15·1*	106·7	44·9	61·8	31·6*
		Jask		29·845	−·022		30·348	29·359	·989	·280	79·9	87·8	+1·2	75·1	+1·7	81·5	+1·5	12·7	110·2	55·3	54·9	25·8
		Muscat	20	29·857	−·002	29·824	30·338	29·352	·986	·291	82·0	84·2	+0·8	79·9	+1·2	82·1	+1·0	4·3	100·5	65·2	35·3	13·9
	Arabia	Baghdad	220	29·775	−·011†	29·977	30·305	29·320	·985	·399	68·4	88·3	+3·2	61·9	+2·7	75·2	+3·0	26·4	119·6	26·5	93·1	34·3
		Bussrah		29·931			30·508	29·433	1·075	·366		85·2		67·4		76·3		17·8	111·4	32·5	78·9	36·0
		Aden	94	29·813	−·013	29·839	30·156	29·471	·685	·204	82·6	88·5	+0·3	78·6	+0·9	83·6	+0·6	9·9	96·3	68·5	29·8	19·2
		Perim	201	29·698	+·009	29·832	30·022	29·430	·592	·165	83·7	90·2	+0·4	80·2	+1·1	85·3	+0·8	10·0	102·9	72·2	30·7	17·0
	Afghanistan	Kabul									52·5	75·2	+3·2	42·1	−0·4	58·7	+1·5	33·1	102·1	18·4	83·7	50·6
	Central Asia	Kashgar	4,255	25·614			26·140	25·180	·960	·494	50·6	68·1	+1·9	43·5	0	55·8	+0·9	24·6	102·3	−4·2	106·5	47·4
	Arabian Sea Islands.	Amini Devi	13	29·938	+·011	29·879	30·115	29·765	·350	·149	84·1	88·2	+2·0?	77·7	+0·6	83·0	+1·3?	10·6	97·6	67·8	29·8	18·3
		Minicoy	7	29·951		29·883	30·105	29·825	·280	·129	82·2	86·7	+0·2						92·1			
	Africa	Zanzibar	73	29·986	−·006	29·986	30·151	29·818	·333	·147	78·8	84·1	+0·5	76·8	+0·3	80·5	+0·4	7·4	91·9	71·1	20·8	13·2
		Do. Dunga									77·7	87·7		70·2		79·0		17·6	97·8	62·1	35·7	25·3
	Straits Settlements.	Penang‡	20	29·914		29·859	29·992	29·809	·183	·148	81·7	89·6		74·2		81·9		15·4	95·0	71·0	24·0	19·4
		Singapore‡	10	29·932		29·863	30·029	29·827	·202	·121	83·7	87·5		72·7		80·1		14·8	92·2	67·4	24·8	20·0

* Mean of 11 months. † Mean of 10 months. ‡ Nine hours' observations.

NOTE.—When a query is inserted against any reading or in the variation returns of any

I—*concld.*

at 225 stations in India, Burma, etc., in the year 1902—concld.

Wind direction. Number of winds from									Wind velocity.				Hygrometry 8 A.M.		Mean cloud amount of year.	Rainfall.						Heaviest rainfall during year.	Station.	Meteorological Province or District.	Number of District.
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean velocity in miles per hour, by anemometer (uncorrected).	Mean velocity corrected (where possible).	Normal.	Percentage variation.	Mean humidity of year.	Mean vapour tension of year.		Number of rainy days during year.	Normal number of rainy days during year.	Variation.	Rainfall of year.	Normal rainfall of year.	Variation from normal.				
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
70	26	49	8	16	15	119	28	34	8·7	8·8	7·0	+26	51	·363	3·1	40	54·20	−14·20	30·49	61·73	−31·24	4·87	Mount Abu	Central India.	
146	20	6	9	25	8	27	51	73	6·7	6·9	5·2	+33	59	·432	3·6	67	79·20	−12·20	52·44	76·21	−23·77	5·28	Pachmarhi.		
163	19	32	17	26	9	47	5	3	2·9		3·4	−15	72	·403	5·4	98	86·80	+11·20	72·14	50·75	+21·39	3·54	Wellington(g).	South India.	
3	41	71	59	49	16	5	40	81					70	·328	4·4	123	99·40	+23·60	72·53	64·82	+ 7·71	4·08	Kodaikanal.		
126	3	21	44	22	6	22	41	13	3·8†	3·6†			71	·359	5·1	122	90·70	+31·30	66·05	46·60	+19·45	4·03	Ootacamund§.		
																							XIII.—Extra India.		
112	1	46				201		5					87	·906	3·0	94			76·73	62·37	+14·36	3·58	Trincomalee	Ceylon.	
11	45	66	71	35	41	83	10	3	7·4		7·6	−3	84	·879	5·2	144			118·37	89·59	+28·78	6·09	Colombo.		
													63	·378	2·9	22			10·34	8·29	+2·05	1·39	Meshed	Persia	
120	27	91	19	7	24	38	14	15	2·3	3·0			46	·250	3·0	30			9·59	9·49	+0·10	1·08	Teheran.(a).		
265	7	6	6	2	2	15	43	14	3·0	3·8			60	·312	2·0	21			8·69	3·64	+5·05	1·73	Ispahan.(b).		
25	79	86	29	30	7	6	11	90	7·9	9·4			68	·614	2·3	20			11·21	12·11	−0·90	2·05	Bushire.(c).		
3	50	23	24	17	31	22	63	95					81*	·805*		3			0·56			0·24	Bahrein(d)		
26	38	37	110	42	2	3	29	59	11·6	13·2			72	·753	1·2	5			1·62	4·46	−2·84	0·52	Jask.(e).		
14	2	7		185	3	37	7	106	4·1	4·3			71	·785	0·8	6			2·07	4·43	−2·36	0·98	Muscat(f).		
220	50	3	4	5	15	2	17	36	2·0	2·6			55	·379	2·1	20			7·22	9·04	−1·82	0·91	Baghdad(h)	Arabia.	
																21			7·12			1·74	Bussrah.		
11	2	107	109	38	21	33	8	2	13·1	11·9	11·5	+3	73	·818	4·4	0			0·13	2·97	−2·84	0·05	Aden.(i).		
2	4	21	95	130	11	47	29	26	18·9	17·0			79	·925	1·4	3			2·06	1·92	+0·14	1·35	Perim.		
		24	58	78	75	120	6	6					54	·209	2·4	23			6·97	11·85	−4·88	0·74	Kabul	Afghanistan.	
281	6	1	5	3	16	4	6		1·9	1·7					1·8	3			2·18	3·99	−1·81	1·00	Kashgar(k)	Central Asia.	
8	108	51	21	8	14	15	56	84					75	·871	6·6	95			75·49	48·41	+27·08	5·13	Amini Devi	Arabian Sea Islands.	
	53	63	30	25	15	47	70	62	7·6	8·1			79	·871	5·3	111			81·99	57·48	+24·51	3·67	Minicoy.		
4	40	52	26	50	116	68	5	3	7·3	6·8			85	·844	7·2	94			65·49	55·04	+10·45	4·82	Zanzibar(l)	Africa.	
88	9	63	2	28	23	95	2	8	5·5	5·3			87	·831	5·8	106			76·33			2·89	Do. Dunga(m).		
58	49	108	7	45	25			14							5·9	127			82·20			3·68	Penang(n)	Straits Settlements.	
6	24	41	57	90	27	19	10	30							4·9	92			50·67			3·66	Singapore(o)		

station, the data for that station are not utilized in calculating the provincial variations.

Wind observation of 298 days.
(a) ,, ,, ,, 355 ,,
(b) ,, ,, ,, 360 ,,
(c) ,, ,, ,, 363 ,,

(d) Wind observation of 328 days.
(e) ,, ,, ,, 346 ,,
(f) ,, ,, ,, 361 ,,
(g) ,, ,, ,, 321 ,,

(h) Wind observation of 352 days.
(i) ,, ,, ,, 331 ,,
(k) ,, ,, ,, 322 ,,
(l) ,, ,, ,, 364 ,,

(m) Wind observation of 318 days.
(n) ,, ,, ,, 306 ,,
(o) ,, ,, ,, 304 ,,

TABLE II.—Abstract of Observations taken at 10 A.M. and 4 P.M., at 63 Stations in India, Burma, etc., in the year 1902.

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.
1	2	3	4	5	6		8	9	10	11	12	13	14	15	16	17	18	19
Burma Coast and Bay Islands.	Port Blair	61	29·883	29·787	·096	29·833	+·024	29·824	87·5	77·6	9·9	96·4	69·4	27·0	84·3	84·9	81·4	+0·8
	Rangoon	57	·851*	·737*	·114	·798*	P	·777*	89·2	73·3	15·9	102·9	61·2	41·7	82·7	85·8	79·3	+0·5
	Diamond Island	41	·894	·791	·103	·839	+·004	·815	86·9	77·0	9·9	98·4	70·2	28·2	82·6	82·9	80·5	+1·6
	Akyab	20	·898	·793	·105	·846	+·010	·808	86·2	71·5	14·7	96·0	50·5	45·5	80·3	82·8	78·1	−0·3
Bengal and Orissa	Chittagong	87	·820	·712	·108	·766	+·008	·801	85·2	68·4	16·8	95·7	48·4	47·3	80·0	82·1	76·2	−0·2
	Calcutta (Alipore)	21	·866	·751	·115	·806	+·021	·772	87·5	70·5	17·0	99·7	48·4	51·3	81·6	85·1	78·5	+0·5
	Saugor Island	25	·858	·750	·108	·802	+·019	·771	86·5	74·0	12·5	95·0	51·3	43·7	82·2	83·8	79·1	+0·8
	False Point	21	·868	·762	·106	·816	+·011	·778	86·0	72·0	14·0	96·7	47·3	49·4	83·0	83·2	77·8	+0·1
Gangetic Plain and Chota Nagpur.	Hazaribagh	2,007	27·853	27·756	·097	27·804	+·009	·747	86·0	66·7	19·3	106·2	44·0	62·2	79·1	82·3	75·3	+1·4
	Darbhanga	166	29·706	29·580	·126	29·642	+·008	·763	86·2	68·3	17·9	102·8	43·8	59·0	79·7	84·6	76·6	−0·1
	Allahabad	309	·554	·435	·119	·490	+·011	·752	91·5	66·9	24·6	113·9	36·4	77·5	83·3	89·4	78·3	+0·5
Upper Sub-Himalayas.	Dehra Dun	2,233	27·628	27·542	·086	27·576	+·005	·766	82·3	60·8	21·5	102·3	37·4	64·9	73·9	78·7	70·4	−0·1
	Roorkee	859	28·945	28·840	·105	28·885	+·003	·753	87·4	61·2	26·2	108·7	30·9	77·8	77·7	84·6	73·5	−0·5
	Meerut	738	29·096	·996	·100	29·038	−·001	·743	88·9	63·7	25·2	109·4	34·1	75·3	78·3	85·8	75·3	+0·4
	Lahore	702	·134	29·038	·096	·079	+·005	·748	91·1	63·3	27·8	117·4	31·5	85·9	80·0	89·2	76·2	+2·6
	Ludhiana	812	·027	28·932	·095	28·972	+·010	·754	88·2	64·8	23·4	114·1	34·0	80·1	78·2	86·2	75·6	+1·6
N.-W. Frontier Province Indus Valley and N.-W. Rajputana.	Peshawar	1,110	28·755	·643	·112	·692	−·001	·786	87·8	60·0	27·8	117·5	28·4	89·1	77·9	84·9	72·7	+1·8
	Jacobabad	186	29·646	29·530	·116	29·581	−·002	·723	98·8	67·0	31·8	125·4	31·8	93·6	86·0	95·7	81·6	+2·6
	Kurrachee	30	·857	·762	·095	·808	+·004	·788	90·1	72·1	18·0	106·5	46·4	60·1	83·8	85·6	79·8	+2·4
Eastern Rajputana, Central India and Gujarat.	Jaipur	1,431	28·447	28·342	·105	28·388	+·012	·765	92·6	66·7	25·9	113·4	37·3	76·1	83·8	89·8	78·5	+2·3
	Udaipur	1,925	27·969	27·864	·105	27·916		·776	89·5	65·4	24·1	108·1	35·3	72·8	82·0	87·1	76·9	
	Deesa	468	29·414	29·292	·122	29·349	+·001	·763	97·0	69·3	27·7	115·3	43·5	71·8	86·5	95·0	82·8	+2·9
	Jamnagar	61	·843	·734	·109	·788		·795	91·8	69·3	22·5	105·2	41·2	64·0	84·6	88·6	79·7	
Deccan	Belgaum	2,539	27·392	27·288	·104	27·340	+·012	·777	84·9	64·8	20·1	102·4	49·4	53·0	78·1	81·2	73·5	+0·9
	Sholapur	1,580	28·319	28·183	·136	28·253	+·005	·764	93·8	70·2	23·6	110·2	47·4	62·8	84·1	91·1	81·0	+1·8
	Akola	930	·967	·832	·135	·896	+·016	·768	94·7	69·0	25·7	113·5	39·9	73·6	85·8	92·7	81·5	+2·3
	Buldana	2,132	27·776	27·662	·114	27·716	+·012	·761	89·1	68·9	20·2	106·4	49·6	56·8	81·5	86·9	78·6	+1·5
	Khandwa	1,044	28·849	28·717	·132	28·780	+·016	·769	93·8	69·0	24·8	114·2	37·4	76·8	83·8	92·2	80·7	+2·5
	Nagpur	1,025	·860	·730	·130	·792	+·026	·761	94·1	70·5	23·6	114·2	44·0	70·2	84·1	90·9	81·6	+2·0
	Nagpur (Sanitary Commr.'s Office.)	1,013	·875	·747	·128	·808		·767	94·7	70·5	24·2	115·7	44·9	70·8	85·6	91·9	81·9	
	Hyderabad (Deccan)	1,690	·222	·102	·120	·162	+·016	·773	91·7	70·5	21·2	110·0	47·2	62·8	83·5	88·8	80·4	+1·9
West Coast	Bombay	37	29·886	29·785	·101	29·832	+·008	·808	87·4	76·6	10·8	94·9	64·1	30·8	82·1	84·4	81·2	+1·7
	Karwar	44	·901	·801	·100	·846	+·014	·822	86·8	74·1	12·7	92·9	60·4	32·5	82·5	84·9	79·9	+1·2
South India	Periyakulam	945	28·989	28·859	·130	28·934			92·1	70·2	21·9	102·3	55·1	47·2	83·9	87·7	79·9	
	Salem	940	29·009	·875	·134	·950	+·001	29·819	92·8	71·5	21·3	105·9	55·2	50·6	83·7	88·9	80·3	+0·6
	Chitaldroog	2,405	27·537	27·422	·115	27·482	+·009	·782	87·7	68·4	19·3	101·8	52·6	49·2	80·0	85·0	77·4	+1·5
	Bangalore	3,021	26·966	26·855	·111	26·915	+·012	·803	85·0	64·9	20·1	97·9	50·9	47·0	77·0	82·1	74·2	+1·3
	Hassan	3,961	·902	·801	·101	·857	+·012	·817	82·7	63·1	19·6	94·9	48·7	46·2	76·9	79·7	72·2	+0·7
	Mysore	2,518	27·454	27·336	·118	27·395	+·010	·808	86·9	66·2	20·7	97·9	52·8	45·1	78·6	83·5	75·7	+0·7
	Madras	22	29·906	29·792	·114	29·853	+·014	29·804	91·0	75·4	15·6	108·0	62·2	45·8	86·2	86·0	82·0	+0·2

* Mean of 10 months.

II.

at 63 Stations in India, Burma, etc., in the year 1902.

Temperature, Wet-bulb.				Vapour Tension.					Humidity.					Cloud.				Rainfall.			
Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	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.	Total rainfall for the year.	Heaviest rainfall during the year.	Station.	Meteorological Province.
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
74·9	79·1	78·9	77·6	·836	·932	·913	·894	+·011	88	79	76	81	−1	5·3	5·7	5·5	0	138·60	5·16	Port Blair.	Burma Coast and Bay Islands.
71·5	75·8	75·9	74·4	·759	·806	·768	·778	−·001	91	72	64	76	−2	5·1	6·1	5·6	+0·3	65·06	4·18	Rangoon.	
72·7	76·6	76·4	75·2	·744	·843	·829	·805	0	80	75	73	76	−3	4·5	5·0	4·8	−0·4	100·57	5·34	Diamond Island.	
	75·4	76·1			·830	·827				79	73			4·3	3·8	4·1	−0·5	188·58	10·05	Akyab.	
67·6	74·0	74·3	72·0	·692	·774	·760	·742	−·009	95	74	68	79	0	4·6	4·4	4·5	−0·1	121·32	8·17	Chittagong	Bengal and Orissa.
68·5	73·8	74·0	72·1	·702	·759	·716	·725	−·011	90	68	58	72	−4	4·7	4·4	4·6	+0·2	62·28	3·39	Calcutta (Alipore).	
71·2	76·1	76·3	74·5	·758	·843	·833	·811	−·008	87	74	70	77	−3	5·3	5·1	5·2	+0·3	64·09	7·38	Saugor Island.	
70·5	76·1	76·0	74·2	·755	·827	·821	·801	+·003	93	72	71	78	−2	5·2	5·1	5·2	+0·4	50·13	4·26	False Point.	
60·9	65·5	66·1	64·2	·496	·484	·464	·482	−·002	71	47	42	54	−4	4·6	5·5	5·1	+0·4	42·18	2·41	Hazaribagh	Gangetic Plain and Chota Nagpur.
65·9	72·2	73·6	70·6	·646	·721	·712	·693	+·022	88	68	58	71	+1	3·1	2·6	2·9	0	54·13	5·46	Darbhanga.	
62·2	70·1	71·5	67·9	·546	·592	·560	·566	−·006	78	52	42	57	−3	3·2	3·8	3·5	+0·2	39·73	4·76	Allahabad.	
55·7	62·6	64·2	60·8	·416	·456	·446	·442	−·027	72	53	45	57	−6	3·5	3·9	3·7	−0·2	58·39	3·43	Dehra Dun	Upper Sub-Himalayas.
57·6	65·6	67·0	63·4	·476	·503	·458	·479	−·017	79	51	38	56	−2	2·4	2·2	2·3	−0·8	43·27	5·84	Roorkee.	
58·8	65·2	67·6	63·9	·488	·493	·469	·483	−·030	74	48	37	53	−5	2·8	2·9	2·9	−0·1	32·93	5·72	Meerut.	
57·9	66·1	69·4	64·5	·471	·509	·485	·488	+·004	72	47	34	51	−1	2·2	1·9	2·1	−0·6	11·83	2·05	Lahore.	
59·4	64·5	66·5	63·5	·486	·468	·423	·459	−·047	72	45	33	50	−8	2·2	2·3	2·3	−1·2	23·38	4·36	Ludhiana.	
53·3	63·7	65·2	60·7	·371	·454	·414	·413	−·012	65	45	34	48	−5	2·3	3·5	2·9	−0·3	4·12	0·50	Peshawar	N. W. Frontier Province.
60·0†	?	?	?	·515†	?	?	?	?	69†	?	?	?	?	1·7	1·8	1·8	−0·2	2·10	0·56	Jacobabad.	Indus Valley and N.-W. Rajputana.
67·2	73·9	76·2	72·4	·651	·735	·799	·728	+·059	75	61	64	67	0	2·0	1·9	2·0	−1·1	10·98	1·92	Kurrachee.	
58·3	66·9	68·6	64·6	·427	·479	·457	·454	−·010	59	40	32	43	−6	2·8	3·5	3·2	−0·3	18·71	2·95	Jaipur	Eastern Rajputana, Central India and Gujarat.
60·4	68·6	71·2	66·7	·503	·565	·596	·555		75	49	45	56		2·3	2·9	2·6		21·59	2·93	Udaipur.	
61·1	69·0	69·8	66·7	·476	·503	·411	·463	−·017	58	39	26	41	−4	2·4	2·4	2·4	−1·0	13·43	3·00	Deesa.	
65·1	71·7	72·7	69·9	·604	·637	·619	·620		77	51	44	57		2·1	2·0	2·1		10·24	1·77	Jamnagar.	
62·8	67·0	68·3	66·1	·559	·532	·540	·544	+·024	90	58	54	67	+3	4·7	5·2	5·0	+0·4	52·97	6·50	Belgaum	Deccan.
62·6	68·6	69·6	66·9	·492	·515	·461	·489	−·004	65	45	34	48	−3	4·2	5·7	5·0	+0·2	30·41	5·69	Sholapur.	
62·5	69·2	70·8	67·5	·511	·514	·472	·499	+·008	69	43	34	49	−2	3·6	4·2	3·9	+0·1	27·45	2·21	Akola.	
60·3	65·9	66·7	64·3	·436	·458	·414	·436	−·030	61	44	36	47	−5	3·1	3·6	3·4	−0·6	27·58	2·54	Buldana.	
61·2	68·9	70·7	66·9	·478	·531	·490	·500	+·002	65	47	36	49	−3	3·2	4·1	3·7	+0·2	33·68	4·02	Khandwa.	
62·0	68·6	70·0	66·9	·480	·525	·486	·497	−·031	63	46	37	49	−5	3·3	4·6	4·0	−0·5	28·24	3·53	Nagpur.	
63·2	70·3	72·2	68·6	·517	·571	·559	·549		68	48	41	52		3·1	4·4	3·8		32·47	3·24	Nagpur (Sanv. Commr.'s Office).	
	70·8	71·9	?		·607	·582		?		54	45		?	3·9	5·2	4·6	+0·7	24·97	2·18	Hyderabad (Deccan).	
72·4	75·4	76·7	74·8	·749	·803	·826	·793	+·018	81	72	70	74	−2	3·9	3·7	3·8	−0·5	71·97	5·97	Bombay	West Coast.
71·8	75·4	76·6	74·6	·761	·790	·810	·787	+·026	90	71	68	76	−1	3·4	3·7	3·6	−0·2	151·83	12·16	Karwar.	
67·4	73·3	73·9	71·5	·641	·681	·658	·664		86	59	52	65		4·5	6·6	5·6		37·25	2·43	Periyakulam	South India.
79·7	75·4	77·1	74·1	·710	·777	·784	·757	+·069	91	67	58	72	+5	5·0	6·5	5·8	+1·2	44·46	4·55	Salem.	
63·9	68·8	69·0	67·3	·550	·571	·516	·546	+·039	79	57	45	60	+2	4·7	5·5	5·1	+0·1	30·24	2·69	Chitaldroog.	
62·4	67·3	67·3	65·7	·543	·564	·502	·537	+·003	88	61	48	66	−1	4·8	5·3	5·1	+0·5	32·62	3·53	Bangalore.	
61·6	66·9	66·8	65·1	·541	·552	·517	·537	+·008	91	60	53	68	0	5·8	6·8	6·3	+0·3	42·47	5·35	Hassan.	
64	68·5	68·3	67·0	·579	·579	·511	·556	+·008	89	59	47	65	0	6·8	7·0	6·9	+1·4	30·97	4·39	Mysore.	
	76·7	77·2	76·0		·794	·822	·824	+·040		64	66	76	+2	5·0	4·7	4·9	−0·1	54·44	9·16	Madras	

† Mean of 11 months.

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.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
South India—*concld.*	Bellary	1,475	28·454	28·321	·133	28·390	+·011	·790	94·3	71·8	22·5	108·5	53·1	55·4	84·0	90·6	81·7	+1·2
	Waltair	226	29·674	29·566	·103	29·620		·787	87·3	75·7	11·6	103·0	59·9	43·1	84·1	83·6	80·6	
Hill Station, Baluchistan.	Quetta	5,502	24·659	24·573	·086	24·609			76·3	45·4	30·9	98·5	11·8	86·7	68·0	73·0	60·0	
Hill Stations, Northern India.	Leh	11,503	19·738	19·637	·101	19·694	+·030		54·0	29·5	24·5	81·5	0·9	80·6	44·6	50·9	41·3	+0·1
	Srinagar	5,204	24·924	24·831	·093	24·870	+·021		69·0	43·3	25·7	92·0	11·0	81·0	56·1	66·7	55·6	+1·2
	Kailang	10,037	20·978	20·897	·081	20·945			57·1	31·5	25·6	80·8	7·0	73·8	45·8	49·8	41·5	+0·6
	Simla (Ridge)	7,224	23·142	23·089	·053	23·108	+·029		61·5	50·1	11·4	83·5	31·2	52·3	57·0	58·4	55·0	−0·5
	Chakrata	7,022	·305	·251	·054	·270	+·018		64·3	50·1	14·2	79·3	31·9	47·4	58·8	59·4	55·9	+0·1
	Ranikhet	6,069	24·120	24·047	·073	24·072	+·019		68·2	53·9	14·4	85·9	33·7	52·2	63·0	64·4	60·1	+0·3
	Muktesar	7,600	22·875	22·811	·064	22·843			65·0	48·5	16·5	84·6	28·1	56·5	59·1	59·9	55·5	
	Katmandu	4,388	25·634	25·542	·032	25·587			76·5	53·0	23·5	88·4	28·6	59·8	67·2	71·7	63·6	?
	Darjeeling	7,376	23·014	22·956	·058	22·984	+·007		59·9*	48·4*	11·5	71·8	30·4	41·4	55·5*	57·5*	53·5*	?
Hill Stations, Central India.	Mount Abu	3,945	26·060	25·985	·075	26·018	+·006		77·6	63·7	13·9	95·4	45·1	50·3	72·6	75·6	70·2	+1·9
	Pachmarhi	3,528	·465	26·372	·093	·415	+·019		82·7	62·7	20·0	101·7	32·5	69·2	75·5	79·2	72·0	+2·3
	Chikalda	3,642	·341	·245	·096	·290	+·006		81·4	65·2	16·2	99·4	45·3	54·1	74·9	79·6	73·0	+1·7
Hill Stations, South India.	Kodaikanal	7,688	22·861	22·792	·069	22·824			64·7	51·3	13·4	75·2	39·4	35·8	61·2	59·1	56·4	
	Ootacamund		23·088	23·020	·068	23·054			65·4	50·0	15·4	75·6	35·0	40·6	62·3	60·8	56·6	
Extra India	Aden*	94	29·844	29·727	·117	29·781		·806	88·1	78·2	9·9	98·7	68·5	30·2	84·4	86·3	82·9	
	Perim	201	·706	·593	·113	·646		·778	90·2	80·2	10·0	102·9	72·2	30·7	86·7	87·2	84·5	
	Minicoy	7	·962	·885	·077	·921		·853	86·7			92·1			84·3	83·9		
	Zanzibar	73	·998	·886	·112	·942		·941	84·2	76·8	7·4	91·1	71·1	20·0	80·4	83·4	80·3	
	Port Victoria (Seychelles).	15	·979	·893	·086	·936		·875	83·0	74·3*	8·7	87·6	67·9	19·7	81·7	82·5	77·6*	
	Mauritius (Pamplemousses).	181				·866	−·031	·979				93·2	51·9	41·3			74·1	+0·4

* Mean of 11 months.

II—*concld.*

at 63 Stations in India, Burma, etc., in the year 1902—concld.

Temperature, Wet-bulb.				Vapour Tension.					Humidity.					Cloud.				Rainfall.		Station.	Meteorological Province.
Mean minimum.	Mean 10 hours.	Mean 16 hours.	Mean daily.	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.	Total rainfall for the year.	Heaviest rainfall during the year.		
20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
65·5	71·2	71·9	69·5	·565	·609	·555	·576	+·028	72	52	40	55	+1	4·3	5·3	4·8	−0·2	22·21	2·90	Bellary.	South India—*concld.*
68·5	74·6	75·2	72·8	·612	·741	·775	709		68	63	66	66		5·2	5·2	5·2		33·73	3·93	Waltair.	
41·1	51·7	53·1	48·7	·237	·237	·215	·230		73	34	28	45		1·4	2·5	2·0		3·90	0·54	Quetta . .	Hill Station, Baluchistan.
25·9	33·6	37·4	32·3	·129	·130	·141	·133	—·002	70	35	31	45	?	4·1	5·3	4·7	−0·7	2·94	0·49	Leh . .	Hill Stations, Northern India
41·5	53·2	62·3	52·3	·277	·419	·563	·420	+·058	86	83	79	83	+6	3·5	4·3	3·9	−0·7	22·41	1·27	Srinagar.	
29·8	38·0	39·6	35·8	·169	·188	·180	·179	—·002	86	53	47	62	0	4·7	6·2	5·5	−0·1	21·12	2·32	Kailang.	
44·0	47·9	49·4	47·1	·245	·261	·282	·263	−·026	62	52	54	56	−4	4·2	5·0	4·6	−0·5	40·36	1·65	Simla (Ridge).	
45·1*	50·4	50·8	48·7*	·269*	·299	·304	·290*	?	67*	57	57	60*	?	3·9	5·1	4·5	−0·1	58·65	3·93	Chakrata.	
48·7	53·7	54·3	52·2	·312	·334	·338	·328	−·016	70	56	53	60	−5	3·6	4·2	3·9	−0·5	40·37	4·42	Ranikhet.	
43·7	50·4	51·7	48·6	·255	·295	·318	·289		68	55	58	60		3·5	4·4	4·0		42·18	2·92	Muktesar.	
51·8	59·7	61·3	57·6	·409	·456	·447	·437	—·011	91	65	55	70	−2	4·1	5·0	4·6	−0·1	67·89	6·45	Katmandu.	
46·8*	52·1*	53·8*	50·9*	·322*	·371*	·391*	·361*	?	89*	80*	79*	83*	?	5·6	6·4	6·0	−0·6	150·78	12·20	Darjeeling.	
54·6	59·2	60·5	58·1	·341	·366	·372	·359	—·006	56	46	41	48	−5	3·1	3·3	3·2	−0·4	30·49	4·87	Mount Abu .	Hill Stations, Central India.
56·3	62·0	63·3	60·5	·406	·415	·409	·410	—·003	70	49	44	54	−3	3·5	4·2	3·9	−0·3	52·44	5·28	Pachmarhi.	
57·8	62·3	64·5	61·5	·408	·429	·444	·427	−·005	65	52	48	55	−3	3·4	4·1	3·8	−0·6	45·56	4·16	Chikalda.	
46·9	54·2	55·1	51·9	·284	·356	·399	·345		74	67	80	75		5·0	7·2	6·1		72·53	4·08	Kodaikanal .	Hill Station South India.
47·7	54·4	55·2	52·4	·314	·348	·381	·348		85	63	72	73		5·3	6·8	6·1		66·05	4·03	Ootacamund.	
71·6	76·0	75·0	74·2	·696	·799	·728	·741		71	67	57	65		3·9	2·6	3·3		0·13	0·05	Aden . .	Extra India.
76·3	79·7	79·8	78·6	·862	·936	·933	·911		83	73	72	76		0·8	0·6	0·7		2·06	1·35	Perim.	
	77·8	77·6			·875	·865				75	75			5·3	6·0	5·7		84·99	3·67	Minicoy.	
73·0	76·2	76·2	76·0	·765	·854	·813	·811		83	82	71	78		6·8	5·3	6·1		65·49	4·82	Zanzibar.	
73·1	76·1	76·2	75·2	·798*	·832	·825	·817*		94*	76	74	82*		5·8	6·0	5·9		87·21	4·20	Port Victoria (Seychelles).	
							·635	+·010				74	0					47·11	5·40	Mauritius (Pamplemousses).	

Corrigenda in India Monthly Weather Reviews and the Annual Summary for the year 1902.

TEXT.

Page.	Column.	Part.	Correction.
66	...	February 1902 .	*For* "0·3", "0·20" and "+0·19" *read* "0·2", "0·16" and "+0·23", respectively, against Lower Burma (Deltaic) in figure columns 2, 4 and 5 of the tabular statement.
66	...	Ditto . .	*For* "0·08" and "—0·03" *read* "0·05" and "0", respectively, against Central Burma in the figure columns 4 and 5 of the tabular statement.
66	...	Ditto . .	*For* "0·6", "0·22" and "—0·14" *read* "0·4", "0·19" and "—0·11", respectively, against Upper Burma in the figure columns 2, 4 and 5 of the tabular statement.
66	...	Ditto . .	*For* "0·14" and "—0·13" *read* "0·16" and "—0·15", respectively, against Arakan in the figure columns 4 and 5 of the tabular statement.
198	1	June 1902 . .	*For* "the most severe that has" *read* "the severest that have" in the 2nd line of paragraph 4.
312	...	August " . .	*For* "15·18" and "+3·34" *read* "14·62" and "+3·90", respectively, against Assam (Brahmaputra) in the figure columns 4 and 5 of the tabular statement.
653	...	India Weather Review, Annual Summary, 1902.	*For* "65·17", "+8·87", "91·98" and "+6·88" *read* "64·61", "+9·43", "91·42" and "+7·44", repectively, against Assam Brahmaputra in the figure columns 8, 9, 14 and 15 of the tabular statement.
666	1	Ditto . .	*For* "it averaged 22" *read* "it averaged 27" in the 3rd line of paragraph 7.
666	1	Ditto . .	*For* "15·18", "+3·34" and "+22" *read* "14·62", "+3·90" and "+27", respectively, against Assam Brahmaputra in the figure columns 2, 3 and 4 of the 1st tabular statement.

Corrigenda in India Monthly Weather Reviews for the year 1902—*contd.*

TABLES I AND II.

Page.	Part.	Table.	Meteorological Province or station.	Heading.	Column number.	Correction.
ii	January 1902 . .	I	Dibrugarh . . .	Elevation of bar-cistern, etc.	4	*For* "394" *read* "353".
v	Ditto . . .	I	Allahabad . . .	Rainfall . .	43, 45, 46, 48, 49 and 51.	*For* "1", "—0·60", "0·39", "—0·37", "0·39" and "—0·61" *read* "2", "+0·40", "0·53", "—0·23", "0·53" and "—0·47", respectively.
vi, xxvi, xlvi, lxvi, lxxxvi, cvi, cxxx, cliv, and clxxiv.	January to September 1902.	I	Veraval . . .	Elevation of bar-cistern, etc.	4	*For* "8" *read* "18".
xi	January 1902 . .	I	Leh	Rainfall . .	49 and 51	*For* "0·09" and "—0·41" *read* "0·10" and "—0·40", respectively.
xii	Ditto . . .	I	Teheran . . .	Temperapture of air	17	*For* "+5·3" *read* "+5·2".
xviii	Ditto . . .	II	Minicoy . . .	Pressure . .	4, 5 and 9	*Omit* "+" after figures in columns 4, 5 and 9.
xxvi	February 1902 . .	I	Punjab (Submontane) .	Number of District.	1	*For* "9" *read* "29".
xxx	Ditto . . .	I	Leh	Temperature of air	14, 15, 18 and 19.	*For* "38·7", "+7·3", "26·8" and "+6·2" *read* "39·1", "+7·7", "27·0" and "+6·4", respectively.
xxxviii	Ditto . . .	II	Leh	Ditto . .	10 and 12.	*For* "39·4" and "24·6" *read* "39·6" and "24·8", respectively.
xlii, lxii. lxxxii, cii, cxxvi, cl, clxx, and cxc.	March to October 1902	I	Rangoon . . .	Elevation of bar-cistern, etc.	4	*For* "41" *read* "57".
lii, liii	March 1902 . .	I	Straits Settlement .	Meteorological Province or District.	2 and 54.	*For* "Straits Settlement" *read* "Straits Settlements".
lvi, lxxvi, xcvi, cxvi, cxl, clxiv, clxxxiv, and cciv.	March to October 1902	II	Rangoon . . .	Elevation of bar-cistern, etc.	3	*For* "41" *read* "57".
lvi	March 1902 . . .	II	Rangoon . . .	Pressure . .	8 and 9.	*For* "—·035" and "·801" *read* "—·018" and "·818", respectively.
lxvi	April 1902 . . .	I	Neemuch . . .	Pressure 8 A.M., etc.	5	*For* "28·24" *read* "28·204".
lxxvi	Ditto . . .	II	Rangoon . . .	Pressure . .	5, 6, 7, 8, and 9.	*For* "·705", "·160", "·789", "—·008", and "·766" *read* "·707", "·158" "·790", "+·010" and "·784", respectively.
lxxvi	Ditto . . .	II	Darbhanga . . .	Temperature of air.	17	*For* "92·0" *read* "91·9".
lxxviii	Ditto . . .	II	Port Victoria (Seychelles)	Ditto . .	10	*For* "82·8" *read* "86·2".
lxxviii	Ditto . . .	II	Port Victoria (Seychelles)	Ditto . .	11, 12, 14, 15, 18, and 19.	*Insert* "75·7", "10·5", "72·7", "14·9", "80·9" and "+0·2", respectively.
lxxix	Ditto . . .	II	Aden	Wind velocity .	51	*For* "356 ¶ ⊛" *read* "355 ⊛".
lxxix	Ditto . . .	II	Port Victoria (Seychelles)	Vapour tension and Humidity.	24, 25, 27, 28, 29, 32 and 33.	*Insert* "·850", *read* "·856" *for* "·85" and *insert* "·852", "+·03", "·951", "78" and "+1", respectively.
lxxxii	May 1902 . . .	I	Diamond Island . .	Temperature of air	14, 15, 16, 17, 19, 20, 23, 24 and 25.	*For* "90·5", "?", "79·6", "+0·8", "?", "10·9", "74·7", "6th" and "22·7" *read* "90·9", "+2·3", "79·2", "+0·4", "+1·4", "11·7", "74·2", "28th" and "23·2", respectively.
lxxxiv	Ditto . . .	I	Motihari . . .	Ditto . .	14, 18 and 20.	*For* "95·3", "84·9" and "20·9" *read* "95·2", "84·8" and "20·8", respectively.
lxxxv	Ditto . . .	I	Bankura . . .	Rainfall . .	46, 48, 49 and 51.	*For* "7·19", "+3·30", "7·19" and "+3·30" *read* "7·21", "+3·32", "7·21" and "+3·32", respectively.

Corrigenda in India Monthly Weather Reviews for the year 1902—*contd.*

TABLES I AND II—*contd.*

Page.	Part.	Table.	Meteorological Province or station.	Heading.	Column number.	Correction.
lxxxv	May 1902 . . .	I	Motihari . . .	Hygrometer 8 A.M.	40 and 41	*For* "76" and "·776" *read* "75" and "·770", respectively.
lxxxvi	Ditto . . .	I	Bharatpore . . .	Pressure 8 A.M., etc.	7	*Insert* "29·624".
xcvi	Ditto . . .	II	Rangoon . . .	Pressure . .	8 and 9	*For* "—·013" and "·719" *read* "+·004" and "·736", respectively.
xcvi and xcvii	Ditto . . .	II	Indus Valley and N. W. Rajputana.	Meteorological Province.	1 and 56	*For* "Indus Valley and N. W. Rajputana" *read* "N. W. Frontier Province, Indus Valley and N. W. Rajputana."
xcvi	Ditto . . .	II	Jacobabad . . .	Temperature, Wet bulb.	21, 22 and 23.	*For* "83·8", "88·0" and "80·8" *read* "?".
xcvii	Ditto . . .	II	Jacobabad . . .	Vapour tension and Humidity.	25, 26, 27, 30, 31, 32 and 33.	*For* "·917", "·991", "·845", "45", "36", "47" and "+17" *read* "?".
xcviii	Ditto . . .	II	Zanzibar . . .	Temperature, Wet bulb.	21 and 22	*For* "76·4 ‖" and "76·3 ‖" *read* "76·3" and "76·2", respectively.
xcix	Ditto . . .	II	Zanzibar . . .	Vapour tension and Humidity.	25, 26, 27, 28, 30, 31, 32 and 33.	*For* "·871 ‖", "·820 ‖", "820" "+·025", "88 ‖", "73 ‖", "82" and "0" *read* "·868", "·815", "817", "+·022", "87", "73", "81", and "—1", respectively.
cv	June 1902 . . .	I	Bankura . . .	Rainfall . .	49 and 51	*For* "11·09" and "—3·12" *read* "11·11" and "—3·10", respectively.
cvi	Ditto . . .	I	Bharatpur . . .	Pressure 8 A.M., etc.	7	*Insert* "29·540".
cvii	Ditto . . .	I	VII—N. W. Frontier Province, Indus Valley and North-West Rajputana.	Rainfall . .	46 and 48	*For* "1·89" and "+0·96" *read* "2·55" and "+1·61", respectively.
cvii	Ditto . . .	I	Kurrachee . . .	Ditto . . .	46, 48, 49, 51 and 52.	*For* "3·35", "+2·64", "5·20" "+4·49" and "1·50" *read* "10·59", "+9·88", "12·44", "+11·73" and "7·17", respectively.
cix	Ditto . . .	I	Belgaum . . .	Wind direction .	34	*For* "13" *read* "3".
cxii	Ditto . . .	I	Teheran . . .	Temperature of air.	14, 15 and 18.	*For* "99·0 ‡", "+4·6" and "86·0 ‡" *read* "99·3", "+4·9" and "86·2 ‡". respectively.
cxii	Ditto . . .	I	Teheran . . .	Ditto . .	19	*Insert* "+5·4."
cxiii	Ditto . . .	I	Darjeeling . . .	Rainfall . .	51	*Insert* "—3·91."
cxiii	Ditto . . .	I	Aden	Wind direction .	28	*Insert* "12."
cxiii	Ditto . . .	I	Perim	Ditto . .	28	*For* "12" *read* "3."
cxiii	Ditto . . .	I	Kabul	Ditto . .	28	*For* "3" *read* "6."
cxiii	Ditto . . .	I	Kashgar . . .	Ditto . .	28	*Omit* "6."
cxvi	Ditto . . .	II	Rangoon . . .	Pressure . .	8 and 9	*For* "—·029" and "·683" *read* "—·012" and "·700", respectively.
cxvi	Ditto . . .	II	Jacobabad . . .	Temperature . .	21, 22 and 23.	*For* "88·0", "92·7" and "86·3" *read* "?".
cxvii	Ditto . .	II	Jacobabad . . .	Vapour tension and Humidity.	25, 26, 27, 28, 30, 31, 32 and 33.	*For* "1·177", "1·295", "1·121", "+·462", "66", "56", "66" and "+262" *read* "?."
cxvii	Ditto . . .	II	Kurrachee . . .	Rainfall. . .	53 and 54	*For* "3·35" and "1·50" *read* "10·59" and "7·17", respectively.
cxxii and cxxiii	Ditto . . .	III	Trkhutsk and Bussorah.	Station . . .	...	*For* "Trkhutsk" and "Bussorah" *read* "Irkhutsk" and "Bussrah" in the 9th and 15th lines, respectively.
cxxii and cxxiii	Ditto . . .	IV	Trkhutsk . . .	Ditto . . .	...	*For* "Trkhutsk" *read* "Irkhutsk" in 7th line.
cxxiii	Ditto . . .	III	Teheran . . .	Ditto . . .	...	*For* "Teheran" *read* "Chitral" in 10th line.

Corrigenda in India Monthly Weather Reviews for the year 1902—*concld.*

TABLES I AND II—*concluded.*

Page.	Part.	Table.	Meteorological Province or Station.	Heading.	Column number.	Correction.
cxxiii	June 1902 . . .	III	Chitral . . .	Station . .	...	*For* "Chitral" *read* "Teheran" in the 11th line.
cxxiii	Ditto . . .	IV	...	Ditto . . .	...	*Omit* "*" against Tiflis, Baku, Tashkent, Barnaul, Omsk, Tomsk, Trkhutsk in the 1st, 2nd, 3rd, 4th, 5th, 6th and 7th lines, respectively.
cxxviii	July 1902 . . .	I	North Bihar . .	Number of District.	1	*For* "1" *read* "17".
cxxx	Ditto . . .	I	Bareilly . . .	Elevation of barcistern, etc.	4	*For* "56" *read* "568".
cxxx	Ditto . . .	I	Patiala . . .	Temperature of air.	22	*For* "11" *read* "1st".
cxxxi	Ditto . . .	I	Kurrachee . . .	Rainfall. . .	49 and 51	*For* "5·24" and "+0·87" *read* "12·48" and "+8·11", respectively.
cxl	Ditto . . .	II	Rangoon . . .	Pressure . .	8 and 9	*For* "—·009" and "·702" *read* "+·008" and "·719", respectively.
cxl	Ditto . . .	II	Karwar . . .	Temperature of air.	23	*For* "?" *read* "75·4".
cxli	Ditto . . .	II	Diamond Island . .	Rainfall . .	53	*For* "18·37" *read* "18·36".
cliii	August 1902 . . .	I	Allahabad . . .	Temperature of air.	22	*For* "19t" *read* "19th".
clv	Ditto . . .	I	Kurrachee . . .	Rainfall. . .	49 and 51	*For* "7·84" and "+1·70" *read* "15·08" and "+8·94", respectively.
clviii, clxxviii, cxcviii, ccxviii and ccxxxviii	August to December 1902.	I	Kurnool . . .	Elevation of barcistern, etc.	4	*For* "958" *read* "943".
clviii, clxxviii, cxcviii, ccxviii, and ccxxxviii.	Ditto . . .	I	Kurnool . . .	Pressure 8 A.M., etc.	7	*For* "29·747", "29·802", "29·958", "30·016" and "30·003" *read* "29·736", "29·791", "29·940", "30·004" and "29·992", respectively.
clxiv	August . . .	II	Rangoon . . .	Pressure . .	8 and 9	*For* "—·034" and "·698" *read* "—·017" and "·715", respectively.
clxiv	Ditto . . .	II	Ludhiana . . .	Pressure and Temperature of air.	9, 10, 12, 16, 18 and 19.	*For* "·515 ‡", "96·1 ‡", "14·8", "89·51" "87·8" and "+2·1" *read* "·516" "96·6 ‡", "15·3", "89·6", "88·1 ‡" and "+2·4", respectively.
clxiv	Ditto . . .	II	Kurrachee . . .	Temperature of air	19	*For* "+1" *read* "+1·8".
clxiv	Ditto . . .	II	Akola	Ditto . .	19	*For* "+·1" *read* "+3·1".
clxiv	Ditto . . .	II	Nagpur . . .	Ditto . .	19	*For* "+2" *read* "+2·6".
clxv	Ditto . . .	II	Ludhiana . . .	Vapour tension and Humidity.	25, 27, 28 and 30.	*For* "·831 ‡", "·804", "—·070 and "60 ‡" *read* "·827", "·803", "—·071", and "60", respectively.
clxvi	Ditto . . .	II	Waltair . . .	Temperature of air .	14	*For* "79·4" *read* "74·9".
clxxv	September 1902 . .	I	Kurrachee . . .	Rainfall . .	49 and 51	*For* "10·96" and "+4·31" *read* "18·20" and "+11·55", respectively.
clxxxiv	Ditto . .	II	Rangoon . . .	Pressure . .	8 and 9	*For* "—·004" and "·755" *read* "+·013" and "·772", respectively.
cxc	October 1902 . .	I	Chittagong . . .	Temperature of air.	23	*For* "6·66" *read* "66·6".
cxcv	Ditto . .	I	Kurrachee . . .	Rainfall . .	49 and 51	*For* "10·96" and "+4·31" *read* "18·20" and + "11·55", respectively.
cciv	Ditto . .	II	Rangoon . . .	Pressure . .	8 and 9	*For* "+·050" and "·874 †" *read* "+·067" and "·891 †", respectively.
ccx	November 1902 . .	I	Lower Burma . .	Number of District.	1	*Insert* "2".
ccxv	Ditto . .	I	Kurrachee . . .	Rainfall . .	49 and 51	*For* "10·96" and "+4·24 *read* "18·20" and "+11·48", respectively.
ccxxvi	Ditto . .	II	Minicoy . . .	Pressure . .	4, 5, 7 and 9.	*For* "·985 †", "·893 †", "·938" and "·870 †" *read* "·984", "·891", "·937" and "·869", respectively.
ccxxx	December 1902 . .	I	East Bengal . . .	Number of District .	1	*For* "9" *read* "6".
ccxxxviii	Ditto . .	I	Punjab and N. W. Frontier Province.	Number of District .	1	*For* "36" *read* "30".
ccxlvii	Ditto . .	II	Hill Stations . .	Meteorological province.	56	*For* "Hill stations" *read* "Hill stations, South India."

EXPLANATION OF PLATES.

PLATE I.—A chart of India showing the 11 meteorological provinces and 57 districts of India.

PLATE II.—A chart of India showing the normal average rainfall and the variation of the rainfall from the normal of the months of January and February 1902. This chart and the three following charts have been prepared to illustrate the data given in Table XXXIV. These charts are drawn up in the same manner as the rainfall chart (Plate V) in the Monthly Weather Reviews of the year 1902.

PLATE III.—A chart of India showing the normal average rainfall and the variation of the rainfall from the normal of the months of March to May 1902.

PLATE IV.—A chart of India showing the normal average rainfall and the variation of the rainfall from the normal of the months of June to October 1902.

PLATE V.—A chart of India showing the normal average rainfall and the variation of the rainfall from the normal of the months of November and December 1902.

PLATE VI.—Chart showing the tracks of the more important cyclonic storms of 1902 in the Indian area during the south-west monsoon, a brief summary of which is given on pages 590 to 593.

Times. S. I. O., Calcutta.

Explanation.

The name of the districts 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.

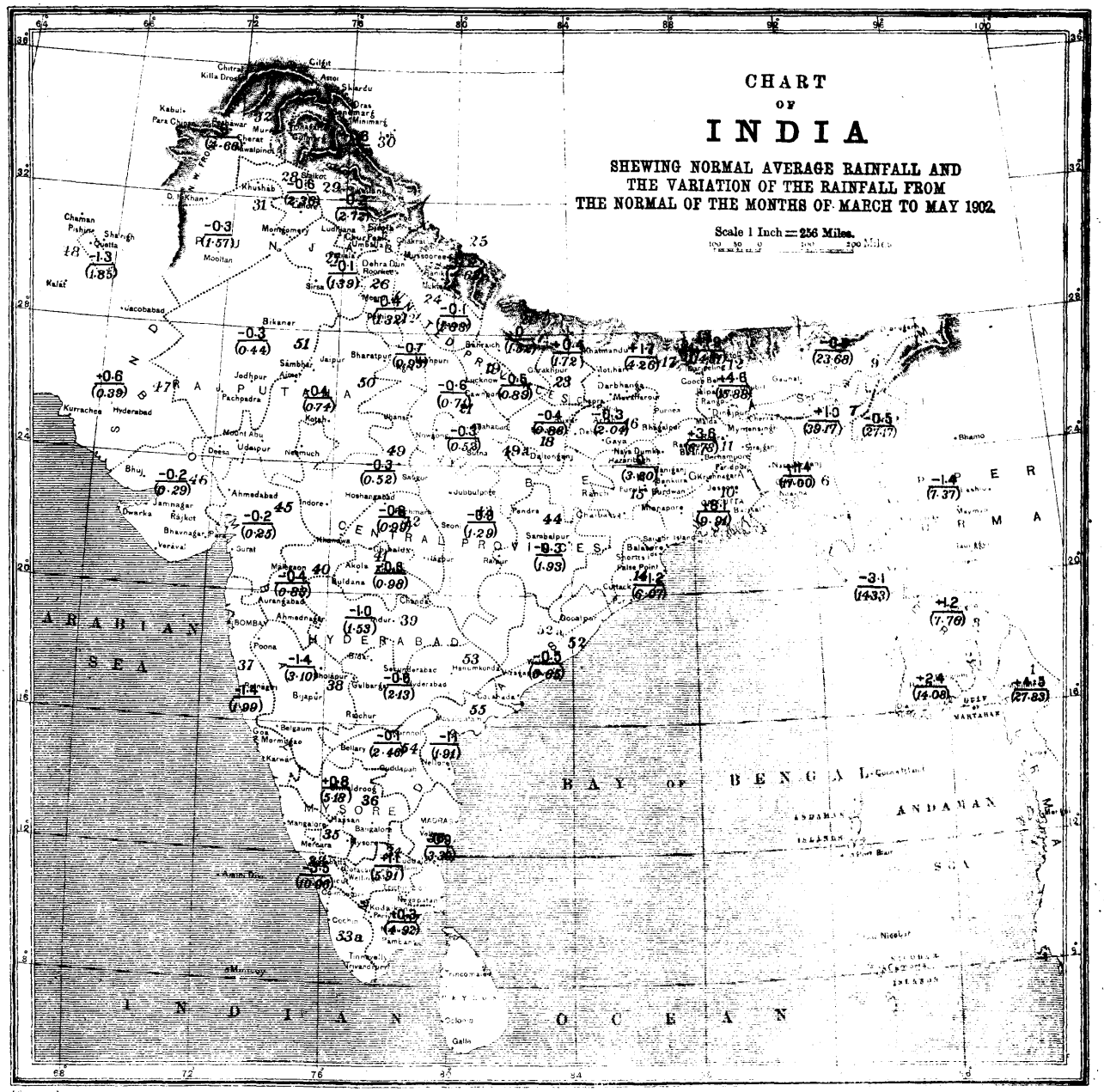
1. Tenasserim	17. North Bihar	32. West Punjab	47. Sind
2. Lower Burma Deltaic	18. United Provinces, East	33. Malabar	48. Baluchistan Hills
3. Central do.	19. South Oudh	33a Travancore	49. Central India, East
4. Upper do.	20. North do.	34. Madras, South Central	49a Do. do.
5. Arakan	21. United Provinces,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

Photo-electrotype.

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



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

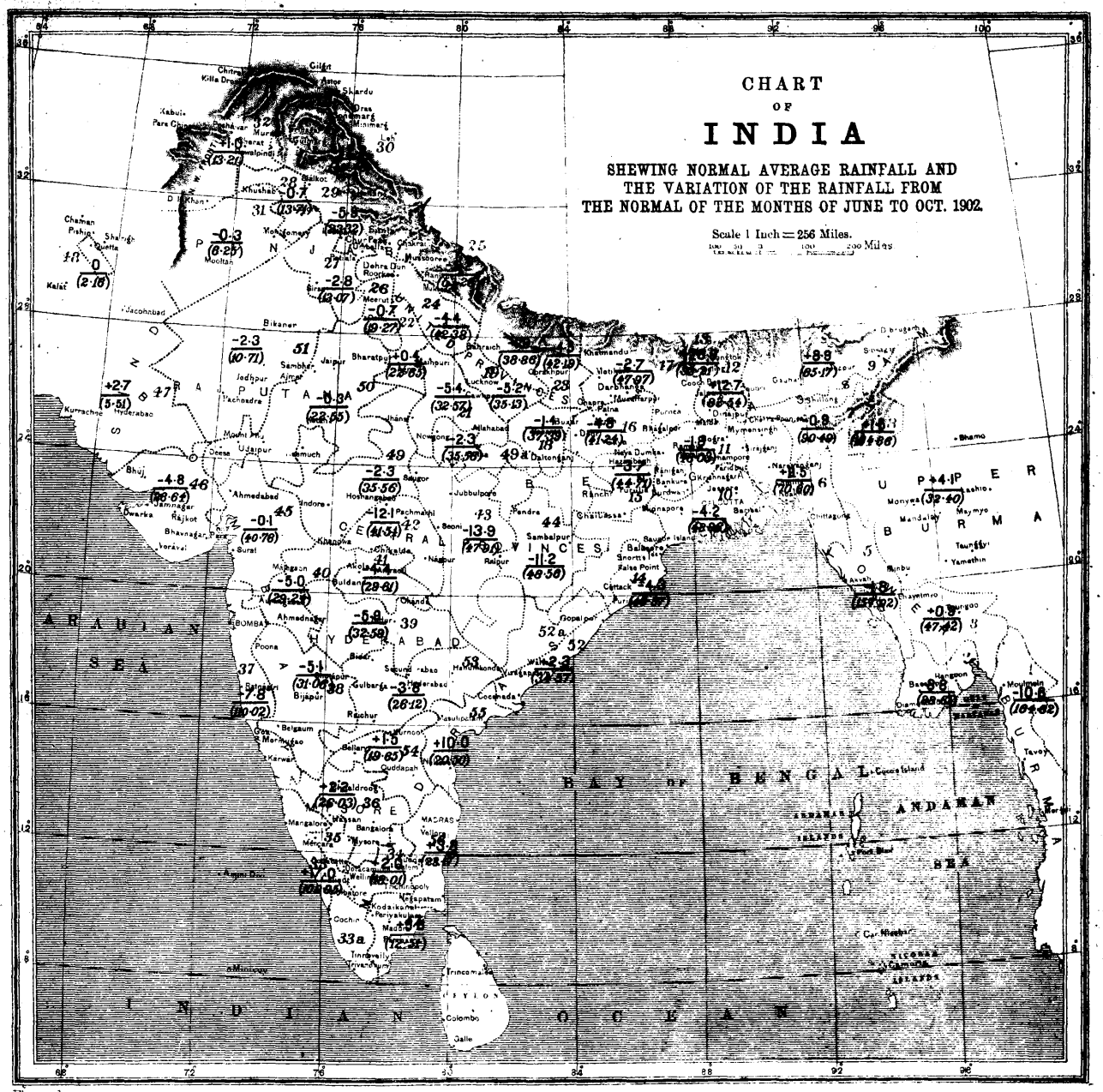


Photo-electrotype.

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. United Provinces, East
19. South Oudh
20. North do.
21. United Provinces, Central
22. Do. do., West
23. Do. do., East Submontane
24. Do. do., West do.
25. Do. do., Hills
26. South East Punjab
27. South do.
28. Central do.
29. Punjab, Submontane
30. Do., and North-West Frontier Province, Hills
31. North Punjab
32. West Punjab
33. Malabar
33a Travancore
34. Madras, South Central
35. Coorg
36. Mysore
37. Konkan
38. Bombay Deccan
39. Hyderabad, North
40. Khandesh
41. Berar
42. Central Provinces, West
43. Do., Central
44. Do., East
45. Gujarat
46. Kathiawar and Cutch
47. Sind
48. Baluchistan Hills
49. Central India, East
49a Do. do.
50. Rajputana East, Central India West
51. West Rajputana
52. Madras, East Coast, North
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

Photo-electrotype.

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.

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

Photo-electrotype.

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